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# Support for post start-up small business growth

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**SUPPORT FOR POST START-UP SMALL BUSINESS GROWTH**

by

**JONATHAN WILLIAM LAWSON LEAN**

A thesis submitted to the University of Plymouth  
in partial fulfilment for the degree of

**DOCTOR OF PHILOSOPHY**

Marketing, Operations and Strategy Group  
University of Plymouth Business School

**April 1996**

# **SUPPORT FOR POST START-UP SMALL BUSINESS GROWTH**

**Jonathan Lean**

## **ABSTRACT**

The objective of this thesis is to determine how small firm support provision might be improved in order to help post start-up businesses in Devon and Cornwall to grow. Interest in this issue stems from (a) previous research carried out in the region highlighting a possible need for continued business support after the initial 12 month start-up period and (b) the increasing emphasis upon stimulating business growth apparent in recent small firm policy.

An examination of relevant literature demonstrates that current understanding of the critical influences upon young post start-up business growth and the extent to which existing support adequately addresses such factors is limited. To address these gaps in existing knowledge, two questionnaire surveys are conducted. In both, emphasis is placed upon owner-manager perceptions in recognition of an identified need for support to be client-led and because of the role played by owner-manager perceptions in influencing growth motivation and actual growth. In-depth interviews are also carried out with owner-managers and staff from start-up support providing organisations.

A variety of techniques are employed to analyse questionnaire responses. Overall, results indicate that owner-managers view the critical influences upon the growth of their firms to be highly individual in nature. Other findings show employment growth and growth intentions amongst responding businesses to be limited. However, some variations are shown to exist between firms. Discriminant analysis is employed to determine the effectiveness of those company characteristics associated with variations in predicting business growth, owner-manager growth intentions and owner-manager perceptions of the importance of different factors influencing growth. Results suggest that in providing support for young post start-up firms, the targeting of businesses on the basis of easily measured characteristics is not likely to be effective.

Results from the second survey show that whilst start-up support is perceived to be adequate in addressing some growth-relevant factors, for many other factors a 'negative support gap' exists. These gaps relate to areas such as strategic product-market development, access to tangible and non-tangible resources, owner-manager personal development, marketing and financial management. An analysis of owner-manager's awareness, use and perceptions of non-start-up assistance suggests that the identified gaps are not being adequately addressed by other schemes and initiatives. Interview evidence suggests that the limited scale of support available to young micro businesses is perceived to be a particular constraint upon the growth opportunities available to post start-up firms.

Drawing on quantitative results and evidence from in-depth interviews, a possible framework for providing effective support for young post start-up businesses in Devon and Cornwall is developed. This proposes the use of a network based approach to both the evaluation of support needs and the provision of assistance. Recognising the varying growth needs, capabilities and ambitions of the owner-managers studied, emphasis is placed upon close cooperation between interested bodies in evaluating the prospects of firms and an individual approach to support delivery. However, it is concluded that in providing assistance for young post start-up firms, a broadly inclusive approach should be adopted. In making recommendations for further research, the limited employment growth experienced by most of the firms studied for this research is recognised as a weakness. A number of methodological improvements are suggested, particularly in relation to the measure of growth used.

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## AUTHOR'S DECLARATION

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award.

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The following activities, comprising the programme of related studies, have been undertaken:

- I. Attendance and participation at staff seminars, during which research work was presented.
- II. Attendance and presentation at various conferences on small business.
- III. Attendance of relevant MBA lectures.
- IV. A schedule of guided reading compiled by supervisors.
- V. Preparation of papers for Plymouth Business School Discussion Paper Series.
- VI. Consultation with various external institutions.

### **Publications:**

**White, J., Lean, J., Gorton, M. and Chaston, I.** (forthcoming) 'Overcoming Sub-Optimal Entrepreneurial Training and Development in Eastern Europe' in Rosa, P., Scott, M. and Klandt, H. (Eds.) *Educating Entrepreneurs in Modernising Economies*. Avebury:Aldershot.

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**CHAPTER 1**  
**INTRODUCTION**

## 1.1 Introduction

The initial question posed by this study was how might the support available to young post start-up businesses be improved in order to help them grow? This subject emerged from two related policy issues. The first of these is concerned with research carried out in Devon and Cornwall to assist with the development of the then newly established Training and Enterprise Council's (TEC) start-up support programme for new businesses (Chaston, 1992). This concluded that the continuing and changing support and training needs of small firms might require that appropriate further support, additional to that provided at start-up, be made available in the period 12 to 36 months after start-up. A need for more research to identify the support needs of young post start-up businesses was highlighted.

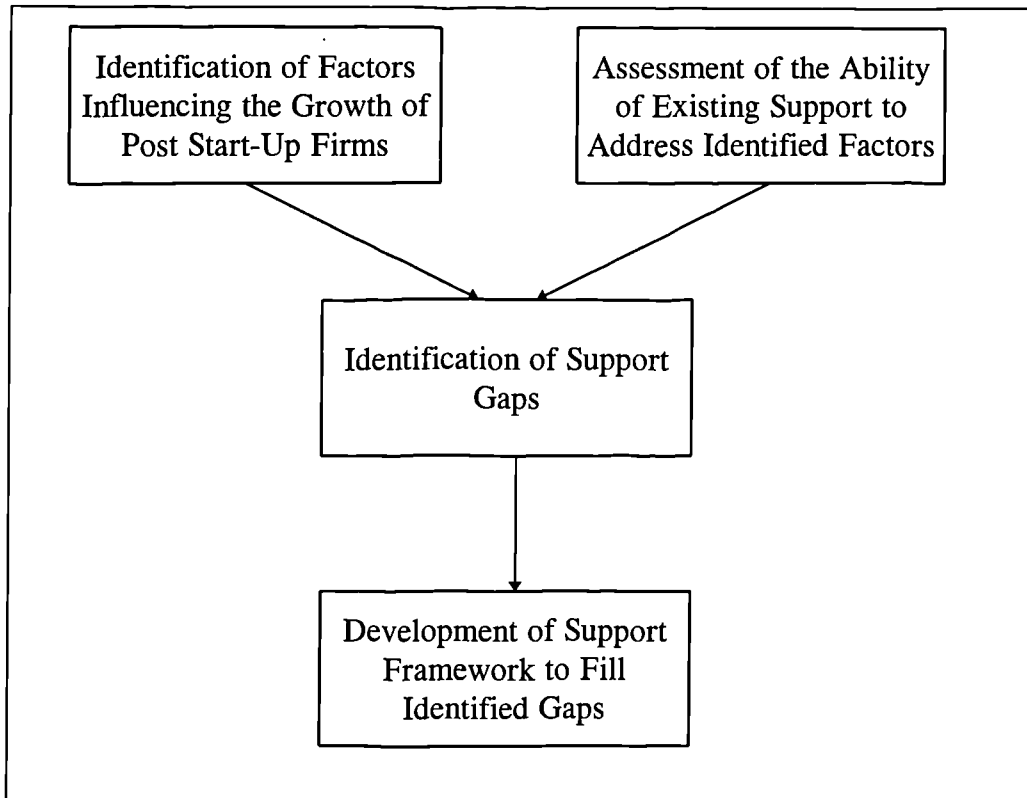
A second issue relates to the increased interest among both academics and policy makers in the growth of small firms. The recent White Paper on Competitiveness (1994) for instance states that *"we need many more small firms to grow into medium and large enterprises"*. This interest in enterprise growth is rooted largely in the recognition that most of the recent employment growth seen in the small firm sector has been generated through business expansion rather than new business births (ENSR, 1994). Further, a relatively small number of fast growing firms account for most of this expansion (Storey, 1987 and 1994). The establishment of Business Links with their focus on small growing companies reflects an apparent policy movement in the UK away from a start-up driven approach to job creation towards one which centres upon supporting existing enterprises with growth potential.

The dual concerns of meeting the support needs of Devon and Cornwall's firms in the years immediately after their start-up support ceases and of encouraging small businesses to grow form the background to this research. These concerns are linked

since it is in the years soon after the first twelve months of trading that growth firms often start to develop (Fourcade, 1985). However, it has been suggested that the shift in focus towards firms employing over ten people under the new Business Link framework may have a detrimental effect upon the development of smaller businesses (McInerny, 1994). Many young post start-up firms fall into this category. Yet at present, little evaluative research exists which assesses the adequacy of business support provision for this group of firms particularly in terms of it's ability to address growth-relevant issues. If this is to occur, a need also exists to understand the nature of the critical influences upon young post start-up firm growth.

In order to address the research question posed, the role played by existing support in helping young firms to grow needed to be evaluated. Two preliminary research aims were therefore established: (1) to determine which factors critically effect the growth performance of post start-up small firms and (2) to assess the extent to which existing support adequately addresses these factors. To achieve these aims, a simple Preliminary Process Model was developed (Figure 1.1).

**Figure 1.1 Preliminary Process Model**



Undertaken between 1993 and 1996, this study collates the results of two questionnaire surveys and 19 in-depth interviews to propose a framework for assisting post start-up businesses. Research was conducted in Devon and Cornwall because of the particular importance of new small firms to the two counties economies (Keeble, 1990; Gripaios, 1989) and because of differences observed in previous research between firms in rural and urban areas (Keeble et al, 1992; Townroe and Mallilieu, 1993) and in different localities (Chell, 1988).

Owing to the nature of the sample of firms used in the study, the vast majority of businesses examined were micro firms. The definition of a micro firm is taken from the classification proposed by the European Observatory for SMEs (ENSR, 1994) as outlined in Table 1.1.

**Table 1.1 - Classification of Small and Medium-Sized Enterprises**

Type of Firm	Number of Employees	Total Number in the EC
Micro	0 - 9	14.5 million
Small	10 - 99	1 million
Medium-Sized	100 - 499	70,000

*Source: European Observatory for SMEs (1993)*

The classification presented in Table 1.1 differs from that proposed by other authors (e.g. Woodruff and Alexander, 1958; Boswell, 1972) but has been widely adopted as a Europe-wide measure of firm type and size. Although small businesses have also been defined in terms of their ownership, geographical area of operation, degree of managerial independence (Scott and Bruce, 1987) and on the basis of various financial measures, the importance of job creation from a policy perspective necessitates definitions based upon employment size, though size bands are inevitably arbitrary to some degree (Woodruff and Alexander, 1958). It should also be borne in mind that a firm regarded as being small in one sector or market may be large in relation to small firms in other sectors or markets (Advisory Council on Science and Technology, 1990).

Despite definitional problems, it is clear that SMEs, however classified, do make a significant contribution towards the well being of national and regional economies. Nationally, firms with under 500 employees account for 95% of all commercial operations (Robertson et al, 1992). Meanwhile the importance of very small firms is highlighted by evidence showing that in both the UK and the EU as a whole, most recent employment growth has occurred in micro firms and small firms (ENSR, 1994). In Devon and Cornwall, the vast majority of firms employ ten or fewer workers, demonstrating the particular importance of the micro sector to the two counties. In Great Britain as a whole, firms employing ten or less people represent



73.8% of all businesses. This compares to 74.1% in Devon and 77.5% in Cornwall. Differences in numbers employed also exist. In Cornwall, 25.8% of employees work in firms employing ten or less compared to 19.3% in Devon and 17.1% for the whole of Britain (NOMIS, 1996). In both counties, and particularly so in Cornwall, the role of the micro firm is clearly an important one. They represent a larger proportion of total business units than is the case for the rest of the country and also employ a greater proportion of the workforce. Meanwhile, evidence for Europe as a whole suggests that employment growth in recent years has been fastest amongst the smallest of enterprises. The case for ensuring that the support such firms receive is of an adequate standard therefore appears to be strong.

## **1.2 The Research Process (Figure 1.2)**

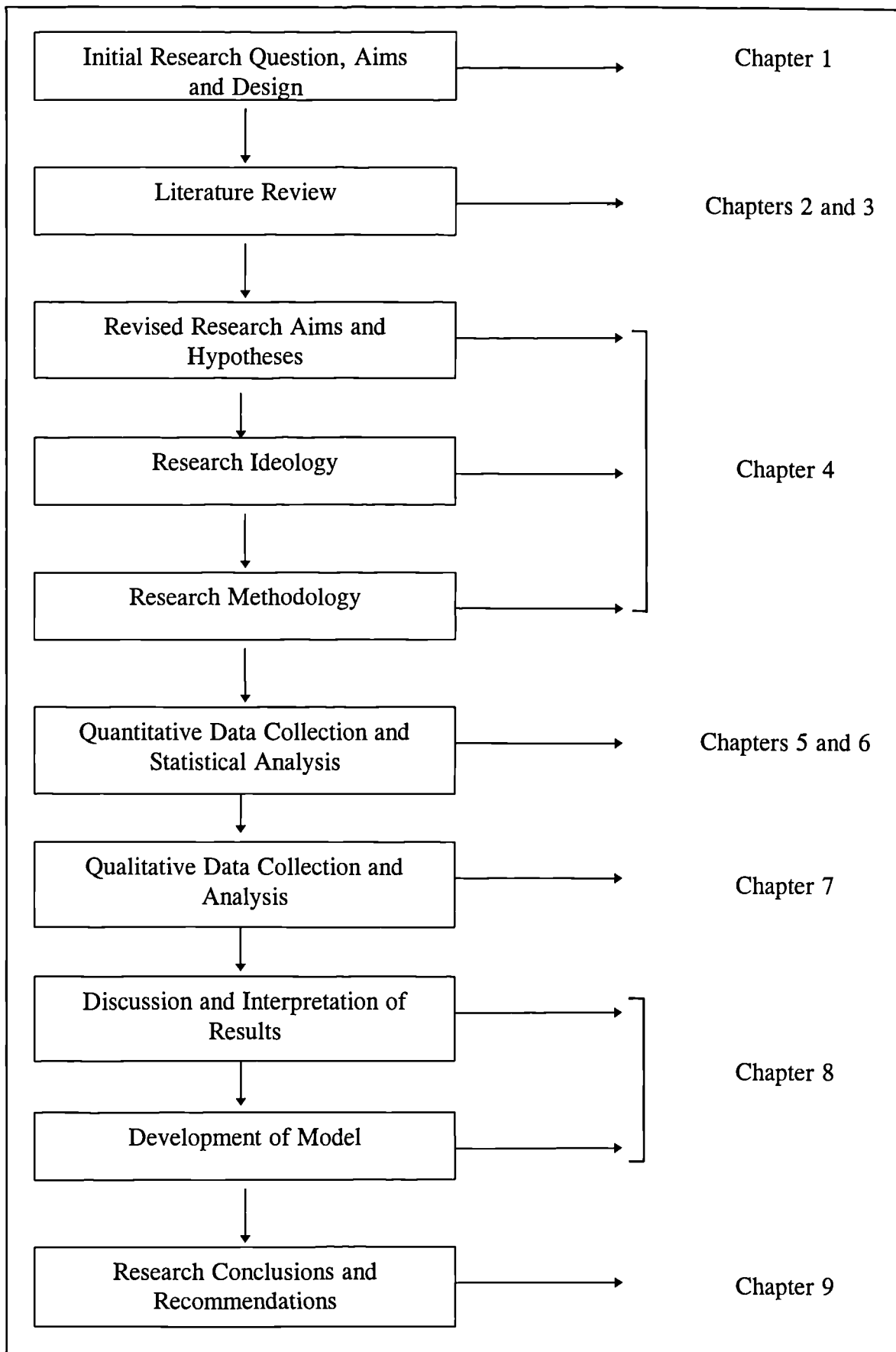
Figure 1.2 provides a broad overview of the research process followed in the study. In Chapter 1, the area of research is introduced and the initial research question, aims and design are outlined. The second chapter examines literature concerned with small business growth and the factors influencing it, so providing an understanding of relevant theoretical issues. Chapter 3 outlines existing research pertaining to small business support, focusing in particular on justifications for assistance and issues relating to support content, design and delivery. In Chapter 4, revised research aims are stated, based on the preceding literature review. Research hypotheses are proposed and issues concerning research ideology addressed. The methodology used in the study is also outlined.

Chapter 5 presents the results of the first questionnaire survey. These relate to the perceived importance of different factors influencing business growth. Statistical analysis explores variations in perceived importance between firms. In Chapter 6, Survey 2 findings are presented. Issues relating to the adequacy of start-up provision in addressing growth relevant needs are first explored and variations analysed.

Businesses awareness and use of both TEC and non-TEC sources of additional and on-going support and advice are then examined. Lastly, open-ended responses relating to possible support improvements to help post start-up firms grow are summarised and explored.

In Chapter 7, in-depth interview evidence from both owner-managers and support providers is presented and analysed. This highlights some of the reasons for the empirical results emerging from the study and also explores in more detail alternative proposals for improving existing support. Chapter 8 summarises both the quantitative and qualitative findings of the study. On the basis of these results, the requirements for effective future support provision are outlined and a possible new framework for post start-up assistance is proposed. In Chapter 9, the research is concluded, the limitations of the study are highlighted and recommendations made regarding areas of future research.

**Figure 1.2 The Research Process**



**CHAPTER 2**  
**THE GROWTH OF SMALL BUSINESSES**

## 2.1 Defining Growth

Before proceeding to an examination of the different approaches taken in studying the process of growth among small businesses and the factors that influence it, it is important to address some definitional issues. As Birley and Westhead (1990) point out, much of the existing literature on growth is characterised by an absence of any discussion concerning appropriate measures for growth. As a result, the precise meaning of the word is often unclear in the context of business development. Measures most commonly used in empirical research include sales turnover, trading profit and the total number of employees. Although both North and Smallbone (1993) and Storey et al (1987) find a strong correlation between employment and sales growth, the relationship between employment growth and growth in profit levels is less evident. Nevertheless, employment related measures of growth continue to be widely used because of the importance given to job creation from a policy perspective and because of the relative ease of access to reliable information on employment compared to more sensitive financial data. However, given that definitions of growth, where they are offered, do vary from study to study, caution is required in the interpretation of results.

## 2.2 Models of Business Growth

O'Farrell and Hitchens (1988) identify four types of small business growth model from the literature: models derived from *industrial economics*, *stochastic* models of growth, *stage* models and *strategic* models. Outlining the view emerging from the industrial economics approach, the authors explain business growth as follows:

*"In reducing their costs, firms in an industry will be involved in a competitive struggle, and, against a given industry demand, some firms will be forced out of the industry as other firms will grow to their minimum efficient scale".*

However, arguing that many of the assumptions implicit in the industrial economics theories of growth (particularly those relating to the nature of managerial and market structures) do not correspond to the realities of the small business sector, O'Farrell and Hitchens conclude that the approach is more suited to much larger companies than to small firms for whom the nature and scale of impediments faced are different.

Stochastic models of firm growth, developed from Gibrat's 1931 'law of proportionate effect', regard growth as being the result of the random effects of multiple independent factors. Given that the conditions of the Law of Proportionate Effect hold, the size of a firm and its growth rate are deemed to be independent of one another. Thus research has attempted to test the requirements of the law in order to ascertain the influence of company size. In the case of the first condition, which states that firms of different sizes have the same proportionate growth rate, results from research carried out on larger firms have been inconclusive. However evidence suggests that the second requirement, that variation in growth rates is the same for all sizes of firm, does not hold since the dispersion of growth rates decreases with size (Storey, Keasy, Watson and Wynarczyk, 1987). Amongst small firms, evidence from O'Farrell and Crouchley (1985) and Storey et al (1987) lends some support to the view that the smallest of firms grow more quickly than larger businesses. O'Farrell and Hitchens conclude that owing to the stochastic nature of this second type of model, many factors are seen to affect business growth and so there can be no single dominant theory.

A more satisfactory explanation from the perspective of small firms comes from the stage models of growth. The stage model gives greater consideration to the development sequence of very small businesses and so has become the dominant explanatory framework for small business growth (Churchill and Lewis, 1983).

Early evidence from Starbuck (1968) provided the basis for the development of the later stage models. His findings suggest that the process of firm development is not a smooth one. Examining time series data from ten firms he found evidence to support the contention that the organisation of a firm undergoes a "*metamorphic*" process of development involving progression through a number of distinct phases or stages. Though development within each individual phase is generally a smooth, continuous process, the overall development pattern is punctuated by "*sharp and discrete transitions from one stage to the next*".

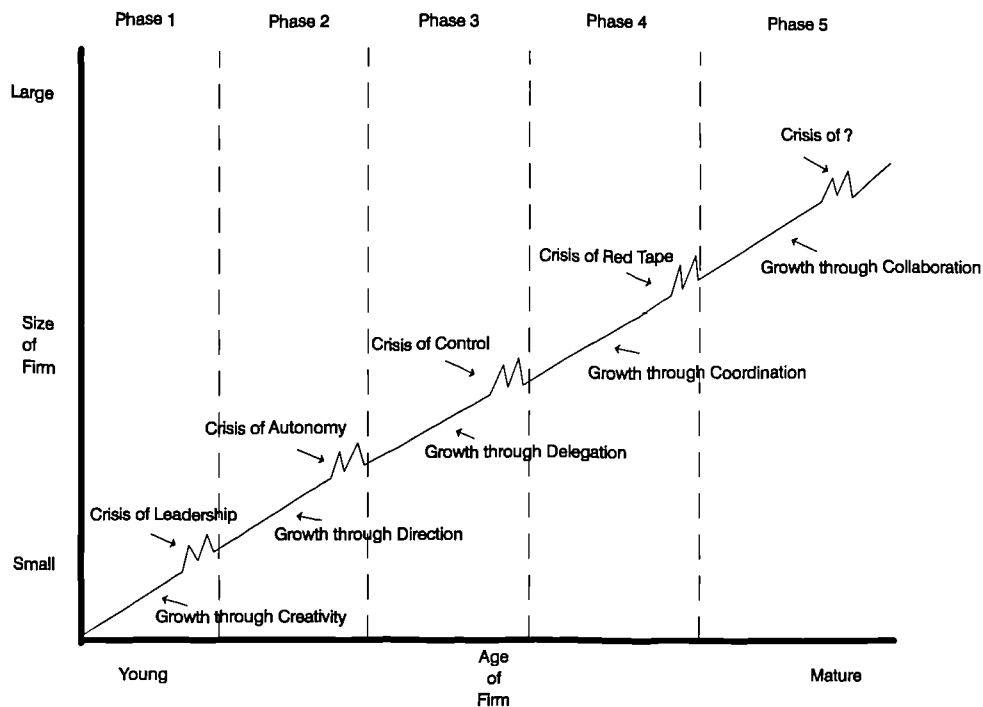
Other studies have built upon empirical evidence concerning the organisational development of firms to create models of phases which encapsulate the important elements of the processes of growth and change that take place over time. Steinmetz (1969) identifies three critical stages of small business growth, each relating to different stages of an 'S' shaped growth path :

- 1) Direct Supervision
- 2) Supervised Supervision
- 3) Indirect Control

The author argues that various distinctive problems arise during each stage, and that the ability of firms to deal with them will determine whether they move on to the next stage, and ultimately, whether they fail or succeed. As with most models of growth, emphasis is placed on the need for adaptability in management style and organisational form as growth occurs.

Greiner (1972) develops the idea of stages of organisational development further with his five stage model which makes a clear distinction between periods of relative stability and periods of revolutionary change within firms (see figure 2.1).

**Figure 2.1 The Five Phases of Business Growth**



*Adapted from Greiner, 1972*

The graph shows how each phase consists of both an evolutionary stage of smooth growth and a revolutionary stage consisting of some form of crisis. Thus early growth through the creation of new products and/or markets leads to increased organisational complexity requiring strong leadership. If such leadership is established, growth is facilitated through a strong sense of direction with power emanating from the top, down through a highly functionalised organisational structure. However, increased organisational diversity will increasingly mean that leadership purely from the top of a firm becomes inappropriate, resulting in demands for greater autonomy which is then achieved through increased delegation and decentralisation. And so the cycle of evolution and revolution goes on, with each crisis creating the potential for failure unless appropriate managerial solutions are applied. Furthermore, each solution generates its own problems for the next phase of development, so that *"each phase is both an effect of the previous phase and a cause of the next"* (Greiner, 1972).



The models of Steinmetz and Greiner are useful in as much as they establish some important basic ideas - i.e. firms pass through a number of stages of development which are marked by various problems. In identifying some of these phases and problems, the authors provide firms with a means of anticipating, identifying and overcoming problems which might otherwise result in constrained growth or failure.

Yet, there exist a number of problems with these earlier models, many of which relate to their apparent lack of relevance to smaller SMEs. Churchill and Lewis (1983) highlight three particular limitations:

- 1) They assume that all firms must grow and pass through all stages or die. As has been shown by Storey (1987) and Birley (1986) amongst others, a large proportion of small firms do not grow in employment terms at all.
- 2) They fail to capture the very early stages of development.
- 3) They characterise company size largely in terms of annual sales, ignoring other important factors.

The authors go on to describe five stages of small business growth. Utilising an index of firm size, diversity and complexity, growth from one stage to the next is described whilst changes in managerial style, organisational structure, strategic goals, owner involvement and the extent of formal systems are also assessed in each of the following stages:

- 1) Existence
- 2) Survival
- 3) Success
- 4) Take-Off
- 5) Resource Maturity

By showing how eight key factors relating to a company's resources and its owner's goals and capabilities are likely to change from one stage to the next, the authors also emphasise specific problems commonly encountered by SMEs during the earlier stages of their development. Thus OMs are able to "*anticipate and manage the factors as they become important to the company*". However, recognising that small companies evolve in a variety of ways through time, the authors dismiss the idea that managerial responses to critical problems must result only in either growth or failure. This contention is confirmed by Birley and Westhead's (1990) work which shows that whilst firms do change over time, they do not necessarily do so in any prescribed sequence.

Scott and Bruce (1987) produce a further model of small business growth which is based closely upon the work of Churchill and Lewis and Greiner. However, the authors place less emphasis upon the organisational structure of developing firms, concentrating more on the specific problems encountered by firms during different stages of development and how these might be overcome. Like Greiner, Scott and Bruce link specific problems to well defined crisis periods which mark the transition from one phase of development to the next. However, in the same way as James (1973) and Mueller (1972), they link the small business development process to the concept of product life cycles, arguing that small firms follow an 'S' shaped growth path.

Stressing that their model "*is not intended as a panacea for strategy formulation*" Scott and Bruce nevertheless suggest that it is a useful diagnostic tool which can be used to help firms analyse their current position, assess current and potential problems and consider suitable strategies at each stage of growth. Research by Vozikis and Glueck (1980) provides evidence to support the basis upon which this conclusion is made. Their survey of 117 small retail and service firms shows that

significant differences exist in the type of problems faced during different stages of development.

Hjern et al (1980) also develop a model of stages which relates the barriers to business growth to the internal and external public and private resources available for overcoming these barriers. A new phase of growth will only begin when the problems which brought the last stage to a halt are resolved. O'Farrell and Hitchens (1988) call the model a 'strategic' model of growth as it "*strategically highlights critical events upon which resources for fostering the development of a small firm might usefully be concentrated*".

Cooper (1979/81) adopts a similar approach, arguing that because problems vary from stage to stage, so do the strategic objectives of small firms. Thus the style and focus of strategic planning should be different in each stage of development. Using his widely adopted typology of small firm development, Cooper highlights the main areas where such differences are likely to arise:

<u>Stage</u>	<u>Features/Strategic Differences</u>
• <u>Start-Up</u>	<ul style="list-style-type: none"> <li>• Decision to start</li> <li>• Decision to enter a particular industry using a particular strategy</li> </ul>
• <u>Early Growth</u>	<ul style="list-style-type: none"> <li>• Initial product-market strategy developed and tested</li> <li>• OM maintains direct control over all major operations</li> </ul>
• <u>Later Growth</u>	<ul style="list-style-type: none"> <li>• Product &amp; geographical diversification leading to increased complexity</li> <li>• Strategy focus switches to managing through delegation &amp; the provision of information</li> <li>• More strategic opportunities arise with growth in competitive power</li> <li>• More complex strategy implementation as firm grows in size</li> </ul>

Using Coopers three stage model, Robinson et al (1984) find evidence to support the assertion that the focus of planning efforts differs according to a firm's stage of development. They show that the strength of the relationship between strategic planning and performance for different performance measures varies by stage. This

occurs in a way that is consistent with the different strategic issues faced by small firms during different stages of development, as outlined by Cooper.

Writing in 1990, Gibb and Davies argue that one of the problems with growth models is that they generally fail to provide longitudinal evidence to support their claims. Such evidence is necessary in order that the sequence of phases proposed by various authors can be validated (Stanworth and Curran, 1976). An exception is the research of Gill (1985). His action research based study focuses upon the problems restricting growth among 24 new small businesses, all of which had made use of business start-up programmes, over a two year time period. The problems were studied within the framework of the following five phase model of 'Business Initiation, Survival and Growth' :

- 1) Deciding to start
- 2) Finding a purpose
- 3) Making & testing a business plan
- 4) Starting and surviving
- 5) Growing

Criticising past literature for being "*excessively deterministic and exhortative*" and "*far removed from the realities experienced by our sample of small business*", Gill identifies three key elements in the development of a new small business:

- 1) the psychological make-up and social/work experience/skills of intending businessmen;
- 2) the resources he can bring to bear, and
- 3) the business idea in relation to the availability of markets to sustain it

Though little attempt is made to quantify the relative importance of factors and 'business development' is not explicitly defined in terms of growth in employment or any other measure, the emphasis of the study on young firms means that Gills findings provide particularly relevant and useful insights into the problems and issues faced by businesses during the months just after start-up. However, O'Farrell and Hitchens (1988) question Gill's claims regarding the usefulness of his model for predicting the likelihood of a particular firm succeeding. Furthermore, concluding their review of stage models of small business growth, they highlight a number of more widely applicable criticisms. Firstly, they note the general lack of regard for the spatial dimension involved. They point out that different regional economies possess a range of advantages and disadvantages which may inhibit or facilitate SME growth. Secondly, and more fundamentally, they argue that the models of growth tend to reflect the symptoms of growth rather more than the underlying causes of the phenomenon. In particular, the underlying causes which are most consistently ignored are those which relate to the external business environment.

So, whilst the more recent stage models of growth have undoubtedly addressed some of the weaknesses of the earlier models, they remain strongly descriptive and fail to adequately show *why* small firms grow - or conversely why they do not. In other words, they are concerned more with the process of growth and its implications for small firms than with its causes. As a result, it is necessary to examine in some depth those studies that seek to establish which factors influence the growth performance of small firms.

### 2.3 Factors Influencing the Growth Performance of Small Firms

A review of the existing literature shows that a large number of studies have examined from a variety of perspectives the influences upon different aspects of small business performance. Adopting a variety of definitions, some have explored the causes of business failure, some the causes of success and others the problems faced by small firms. Relatively few specifically seek to determine the factors influencing growth. Whilst all of these aspects of small firm performance are clearly related, it would nevertheless be wrong to assume that they are direct substitutes for one another (Birley and Westhead, 1990).

However, many of the studies which do not examine growth directly can provide insights into the factors influencing it. For instance, most studies relating to the causes of business success use growth measures as key indicators of success. This in itself creates certain difficulties. As Stuart and Abetti (1986) point out, specific quantitative measures such as initial financial growth are not necessarily good correlates with ultimate success, especially if necessary investment is foregone in order to achieve it. The authors argue that for firms in the early stages of development, more subjective owner-manager perceptions of initial success could provide better measures. A further well documented and more fundamental problem is highlighted by Gill (1985) who stresses that frequently, growth is not regarded as a major goal amongst small firm OMs, many of whom claim to have *"no intention of expanding, taking risks and over-working"*. This suggests that for many OMs, success has a meaning which is much broader than merely the achievement of growth. Indeed Foley and Green (1989) argue that the adoption of a precise definition of success is difficult since *"the balance between factors such as financial rewards, independence, creativity, job satisfaction and happiness is dependent on the attitudes of each individual."*

Clearly, the owner-manager centred nature of small firms has a major impact on the *raison d'être* of such firms, making any judgement regarding the success of an individual firm difficult to quantify in a precise fashion. Nevertheless, whilst studies of business success might fail to accurately reflect the true nature of success, particularly as it is perceived by owner-managers, their frequent use of growth measures as indicators of success means that they do shed some light upon the factors influencing growth and so warrant further examination. Similarly, many of the studies whose focus is upon the problems faced by small businesses are of relevance to this work since they either implicitly or explicitly explore the barriers to small business growth. A substantial body of literature therefore exists to contribute, from a number of perspectives, to a better understanding of the factors influencing the growth performance of small firms.

Past reviews of the existing literature have employed several different categorisations of the factors influencing small business growth. Gibb and Davies (1990) identify four approaches to understanding the growth process: personality dominated approaches, organisational development approaches, business management approaches and sectoral or broader market led approaches. However, in doing so, they recognise that there are clear overlaps between the different approaches and indeed that reductionist classifications can prohibit a genuine understanding of the phenomenon of interest. They conclude that "*there is no comprehensive theory of small and medium enterprise development which clearly brings together all the relevant parameters into a model and indicates how each part interacts with each other*". Moreover, doubts are expressed as to whether such a theory could be developed given the conceptual and methodological limitations of existing research approaches.

Some of these limitations are also highlighted by Storey (1994) who proposes a categorisation based upon three components: the starting resources of the



entrepreneur, the characteristics of the firm and the strategy employed by the firm. The author stresses that it is only in the few cases where all three of these components combine appropriately that rapid company growth occurs. Thus growth cannot be seen as being the result of a single dominant factor or small group of factors.

A simpler and widely adopted classification divides the influences upon company growth into three categories: those associated with *external* environmental issues, those relating to the *internal* structural dynamics of a firm and those concerned with the characteristics of a firms *owner-manager* (Walsh, 1994). This classification differs from that of Milne and Thompson (1982) in that it treats the characteristics of an owner-manager as being distinct from other factors associated with the internal environment of a firm. Any classification of this sort is inevitably problematic because of the sheer diversity of studies undertaken and because different writers classify the same factors in different ways. Cases that can sit easily in more than one category will always exist. Nevertheless, for purposes of clarity and structure, the following review utilises a classification broadly based upon that outlined above. Table 2.1 summarises the main perspectives and types of factors examined.

**Table 2.1    Categorisation of Factors Influencing Growth**

<b>Owner-Manager Characteristics</b>	<b>Internal Factors</b>	<b>External Factors</b>
Psychological Influences	Company Characteristics	Population Ecology
Personality Traits	Organisational Form	External Barriers to Growth
OM Values	Management Competencies	Locational Influences
OM Experience	Strategy	
Personal Characteristics		
Social Context of the Firm		
OM Motivation/Drive		

Within each category, broad approaches to studying small business growth are identified and where possible, relevant empirical studies are drawn upon to support or refute contentions made about the importance to business growth of individual factors.

### ***2.3.1 Owner-Manager Characteristics***

Gibb and Davies (1990) link the development of approaches to explaining small business growth from the perspective of owner-manager characteristics to the traditional economic view of the entrepreneur. This defines the entrepreneur in terms of his or her traits and behaviour patterns (for example as a risk taker, innovator and bearer of uncertainty) and in so doing places much emphasis upon the individual entrepreneur as a central figure in the process of business growth. Many of the studies adopting this approach focus upon the *psychological influences* acting upon business owners and their *personality traits* and *values*. Others stress the effects of the owner's previous *experience*, the role of *personal characteristics* such

as age and gender and the *social context* within which the small firm and its owner-manager operate. Central to many studies is the importance of the owner-manager's *motivation* and desire to grow.

Much of the literature on the *psychological traits* of entrepreneurs concerns itself with establishing exactly what these traits might be and whether they can be said to effectively distinguish entrepreneurs from non-entrepreneurs. Kets de Vries' (1985) widely cited work presents the entrepreneur as one who is essentially a 'deviant'. Citing case studies, four central traits are identified: a need of control, a sense of distrust, a desire for applause and a tendency to use defences. For each trait, possible implications for strategic decision making and company development are explored, highlighting strongly the possible negative effects that such traits might have as a firm grows. In a similar vein, Osbourne (1991) draws on the writings of Machiavelli to argue that the negative personality characteristics displayed by many OMs are a result of the corrupting influence of power. He suggests that power must be handled very carefully by OMs if they are to be successful. Developing his argument from a study of successful firms, the author goes on to construct a sample profile which shows the interdependent entrepreneurial characteristics and capabilities observed and which places particular emphasis upon the importance of leadership and management style in entrepreneurial businesses.

Brockhaus and Horwitz (1985) identify five psychological characteristics associated with the decision to become an entrepreneur. The first, a need for achievement, gained recognition most notably through the work of McClelland (1965). He argued that those people with a strong desire to be successful (that is, a need for achievement or "*n'Ach*") can be characterised as preferring to have personal responsibility for decisions, as being moderate risk takers and as having a tendency to seek measurable feedback from the decisions that they make. The author concludes that such characteristics drive individuals to becoming entrepreneurs.

Supporting evidence is provided by Hornaday and Aboud (1971), Sexton and Bowman (1985) and also Begley and Boyd (1986) who find that business founders are more likely than chief executive non-founders to have a greater need for achievement. However, early results from a UK study by Moran (1995) suggest that high growth owner-managers are not particularly goal-oriented but instead gain satisfaction from the *process* of developing a business. Given that other research (Hornaday and Knutzen, 1986) establishes that Norwegian entrepreneurs have a lower need for achievement than their American counterparts, it could be hypothesised that cultural differences might be a possible cause of these varying results.

A second possible entrepreneurial trait identified by Brockhaus and Horwitz is a tendency to have an *internal locus of control* - that is where an individual "*perceives that [an] event is contingent upon his own behaviour or his own relatively permanent characteristics*" (Rotter, 1966). However, research by Brockhaus and Nord (1979) suggests that entrepreneurs are not distinguishable from traditional managers in terms of their locus of control, a finding supported by Begley and Boyd (1986) in relation to founders and non-founders.

A third trait relates to the propensity of entrepreneurs to take risks. Here, conflicting results emerge from different studies. Begley and Boyd (1986) find that founders do have a higher risk taking propensity than non-founders. Further, Colten and Udell (1976) find their risk taking and creativity scale measurements to be more effective as indicators of the likelihood of university graduates starting a business than either a need to achieve or an internal locus of control. However, Brockhaus (1980) failed to find any significant differences between entrepreneurs and managers in their risk taking tendencies. This would tend to reinforce the view of Kogan and Wallach (1964) and McClelland (1961) that entrepreneurs are in fact 'moderate' risk takers.

A further set of psychological influences relate to the problem solving style and innovativeness of individuals. Brockhaus and Horwitz cite evidence which suggests that entrepreneurs can be characterised as being short-term oriented in their approach to problem solving and also innovative and creative, though not necessarily more so than more traditional business managers. Begley and Boyd (1986) identify two further traits related to the entrepreneurs style of problem solving: a tolerance of ambiguity, whereby the business owner is not perturbed by novel, complex or insoluble situations, and a tendency towards *type A behaviour*. The latter is characterised by the authors as involving such elements as impatience and irritability, time urgency, driving ambition, accelerated activity and generalised competitiveness. Results from their study confirm that business founders do have a higher tolerance of ambiguity than non-founders (a finding also supported by Schere (1982) and Sexton and Bowman (1985)) but identify no significant differences in relation to type A tendencies.

A final psychological influence upon becoming an entrepreneur cited by Brockhaus and Horwitz (1985) is that of personal value systems. Reviewing previous studies, they conclude that results "*seem to support the perception of the entrepreneur as a concrete thinker who is concerned with the immediate problems and operations of the business. However, as the organisation grows, the entrepreneur would have to adjust his interpretation of the world to deal with its increasing complexity*". However, in relation to the effect of psychological influences in general, the authors conclude that few characteristics successfully distinguish the entrepreneur from the traditional business manager. Such a view is supported by Sexton and Bowman (1985) who argue that many of the characteristics common to entrepreneurs are also common to other groups of individuals.

Other inadequacies inherent in past studies of this sort are highlighted by Gibb and Davies (1990). Firstly, they contend that those writing about the personality traits of

OMs tend to ignore or underestimate their ability to learn and change over time. Indeed Amit, Gloston and Muller (1993) raise the possibility that observed traits are the product rather than the cause of entrepreneurial activity. This contention gains some support from Martin (1994) who, from his comparative study of the traits of successful entrepreneurs against other sets of individuals, argues that trait differences are a result of the career experiences of managers, leading to enhancement over time, and not special pre-existing qualities. Gibb and Davies also criticise past studies on the grounds that the type of traits and values that might be described as 'best' will depend upon the particular characteristics of the market in which a firm is operating.

It is clear from the literature that the evidence concerning the degree to which entrepreneurs can be distinguished from other groups through their psychological traits is very mixed. It is therefore not surprising that research into the influence of the existence of these traits among owner-managers upon small business growth is also relatively inconclusive. Begley and Boyd's 1986 study examining the effects of need for achievement, locus of control, risk taking propensity, tolerance of ambiguity and type A characteristics upon revenue growth, return on assets and liquidity finds that little relationship is apparent between psychological attributes and financial performance, though some associations do exist with company age and size. This again suggests that traits might develop as a result of the entrepreneurial experience, rather than the other way round. Nevertheless, the authors conclude that the lack of any association with measurements of financial growth might reflect the well established nature of their sample of firms and that psychological attributes may have a greater effect upon company performance during the early post start-up stages of a firm's development. Such a proposal is in line with the work of Kets de Vries (1985) and Churchill and Lewis (1983) who contend that characteristics important during the early stages of a firm's life become less important or even damaging during later stages.

Further evidence is provided by Chell, Haworth and Brearley (1991). Like others (Amit, Glosten and Muller, 1993; Brockhaus and Horwitz, 1985) they argue that the term 'entrepreneur' cannot satisfactorily be used to describe every business owner and that even the traditional distinction between the 'owner-manager' and the 'entrepreneur' is too simplistic. They go on to categorise small business owners into the following four prototypical groups through the identification of common attributes:-

- 1) Entrepreneur
- 2) Quasi-Entrepreneur
- 3) Administrator
- 4) Caretaker

The researchers subsequently develop a 'neural network' that identifies to which category a firm belongs. However, they find that *"having all the right personal characteristics does not guarantee successful business performance"* and that firms in all four categories can be either successful or unsuccessful. Peacock (1986) comes to similar conclusions, finding that in the case of cognitive judgmental patterns of risk-taking, both successful and unsuccessful entrepreneurs exhibit similar behaviours.

In a more recent study, Walsh (1994) assesses the impact on a variety of measures of employment and employment growth of three owner-manager characteristics: owner-manager adaption-innovation, owner-manager learning style and owner-manager growth orientation. In each case, he fails to identify a relationship. He argues that this could be due to the inadequacy of the techniques used to assess characteristics and concludes that *"the influence of these particular characteristics on firm employment growth may not be as substantial or as amenable to large-scale empirical investigation as previously thought"*.

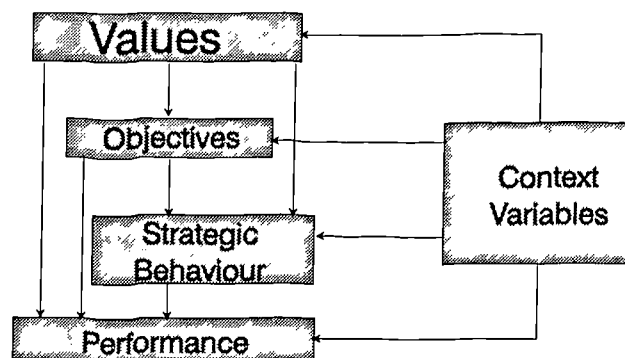
Evidently, personality traits alone cannot be used as a means of discriminating between high and low growth SMEs. In recognition of this, some authors have focused upon the influence of organisational entrepreneurial behaviour in explaining business performance. Developing an instrument to measure organisational-level entrepreneurial behaviour, Covin and Slevin (1986) find that 'entrepreneurial behaviour' relates positively with a number of performance indicators (measured on a Likert scale), including sales growth. In a later paper (Covin and Slevin, 1988), the authors further contend that the relationship between the OM's management style and SME performance is contingent on organisational structure. In particular they conclude that an 'entrepreneurial' management style, which combines risk-taking, innovation and a proactive approach, has a negative effect on the performance of formal and administratively rigid 'mechanistically-structured' firms, but a positive effect on firms that adopt a less formal 'organic' structure.

Miller (1983) confirms that the extent to which success is achieved in trying to stimulate entrepreneurship will depend on how well recommendations take into account the organisational form of a company. He argues that in promoting entrepreneurial activity, the focus in 'simple' firms must be on the entrepreneur, in 'planning' firms on explicit entrepreneurial product-market strategies and in 'organic' firms on the demands of the companies' environments and the capabilities of their structures. Unlike Covin and Slevin, Miller does not explicitly address the possible relationships between entrepreneurial style, in the context of a particular organisational form, and firm performance. However, both works add credibility to arguments favouring a behavioural definition of entrepreneurship. Such a definition is proposed by Stevenson, Roberts and Grousbeck (1989) who argue that it is not possible to apply a single psychological profile to each and every entrepreneur. Rather, the nature of an entrepreneur can best be defined in behavioural terms as *"one who pursues opportunities without regard to resources currently controlled"*.



The above approach is however criticised by Chell, Haworth and Brearley (1991) who argue that it fails to fully acknowledge the link between personality traits and the way that these traits manifest themselves as modes of behaviour in particular circumstances. Bamberger (1983) too argues that a business owner's management or leadership style and the organisational form that his or her business takes, are in fact further manifestations of the OM's underlying values and personality traits. In his study, he creates a Hierarchical Research Design Model which attempts to clarify how the value systems of managers affect a companies strategy and, ultimately, its performance (see Figure 2.2).

**Figure 2.2 The Value Systems of Managers**



*Adapted from Bamberger, 1983*

Bamberger argues that in small firms, the values of the owner or manager have a more direct effect on strategic behaviour and firm performance because decision making is usually in his or her hands alone. A possible implication is that Covin and Slevin's management style approach could be said to support the existence of a genuine, if less direct, link between personality, values and company performance.

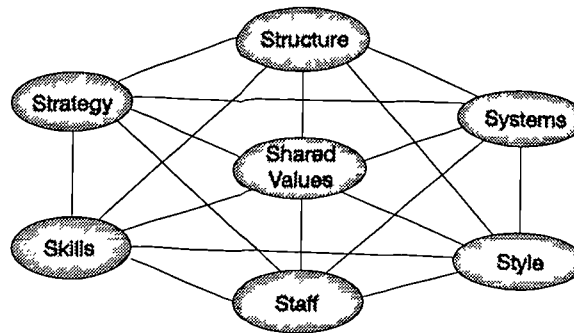
Basing their conclusions on an analysis of OM values in a number of European countries, Frohlic and Pichler (1988) argue that the different values of entrepreneurs give rise to four different types of entrepreneur:

- 1) The all-rounder (versatile, responsive)
- 2) The pioneer (innovative, dynamic, creative)
- 3) The organiser (analytical, planning)
- 4) The routiner (classical and non-spectacular risk bearer)

In determining approaches to work, it is argued that values influence performance. However, it is not made clear what type of entrepreneurial values are most likely to result in improved company performance and growth.

Bamberger (1983), going further in his analysis of the role of the OM in SMEs, argues that managers have an additional indirect influence on the performance of their firms through being central to determining its overall culture. The concept of corporate culture or 'shared values' is central to the McKinsey 7-S framework outlined by Peters and Waterman (1982). In their study of America's most successful and best run companies, they argue that excellence is not achieved purely through a concentration on strategy and structure (the 'hard S's'), but is a result of other factors ('soft S's') too. Their McKinsey 7-S Framework, shown below, was developed to show the inter-relationships between, and the importance of, 'hard' and 'soft' S's.

**Figure 2.3** McKinsey 7-S Framework



*Adapted from Peters & Waterman, 1982*

Arguing that over planning has led to "*paralysis through analysis*" Peters and Waterman state the case for a paradigm shift away from what they call 'old rationality' towards an implementation and action led approach to management, which has *values* at its heart. More particularly, they highlight practical measures to enable firms to adapt "*as a whole culture*" to changing market and environmental conditions, so as to improve performance. The attributes regarded as being of importance are listed below.

- 1) A bias for action - rather than 'paralysis through analysis'
- 2) A close relationship with the customer
- 3) Autonomy and entrepreneurship
- 4) Productivity through people - good labour relations
- 5) Hands on involvement of top management, driven by values
- 6) 'Stick to the knitting'- do what the firm does best
- 7) Simple structural form and lean staff at the top management level
- 8) Simultaneous loose-tight properties - autonomy encouraged, but key core values closely adhered to

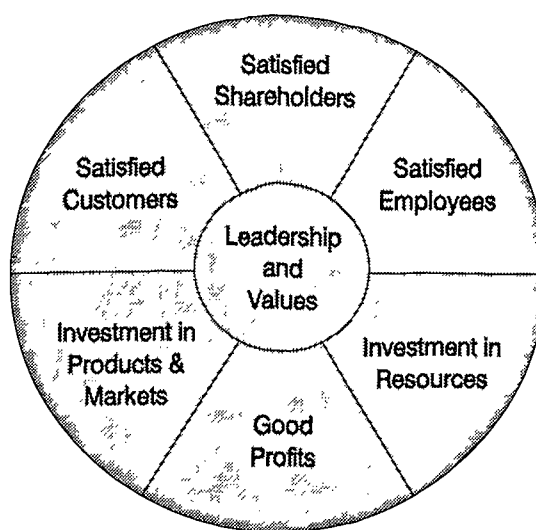
Hall (1991) in his small survey on intangible resources in successful firms finds evidence to support the view that corporate culture is an important influence upon business success. Defining the concept, he argues the following:

*"Culture constitutes the beliefs, knowledge, attributes of mind and customs to which individuals are exposed in an organisation, as a result of which they acquire a language, values and habits of behaviour and thought. The culture of an organisation both sets it apart from others, and also binds its members together; it may work to the organisations advantage or its disadvantage."*

Like Peters and Waterman, the author suggests that successful companies of the future are likely to be those that promote organisational cultures that thrive on change. However, Kruger's 1989 research suggests that company philosophy and culture is of limited importance in determining the performance of firms. Criticising Peters and Waterman, he argues that over emphasising its importance could result in the wrong approach to problem solving being adopted by firms.

Taylor et al (1990) argue that though specific strategies might vary, a common feature among successful British and German SMEs is their business philosophy. Figure 2.4 shows the important elements of the philosophy of successful SMEs. Leadership and values are shown to be of central importance.

**Figure 2.4 The Philosophy of a Successful Medium-Sized Company**



*Adapted from Taylor et al, 1990*

The above examination has shown that the majority of research emphasising the personality traits of owner-managers has focused upon establishing the dominant characteristics of entrepreneurs and those likely to become entrepreneurs, with very little reference to business growth (Walsh, 1994). In the few instances where empirical research is carried out, little evidence exists to directly link the existence of particular owner traits or values with small business growth, though there is some suggestion that the relationship during the earlier stages of a firms development might be stronger. A need for clarifying research in this area has been identified. However, possible links with certain behavioural aspects of entrepreneurship which are contingent on other additional factors might suggest an association of sorts and would go some way towards satisfying the intuitively appealing notion that some types of people make more successful entrepreneurs than others. Furthermore, the personality based classifications of business owners presented by a number of writers are wholly sensible in that they help to dispel the idea that all owners of small firms are alike, even if in many respects they perhaps reflect strategic objectives as much as different personality types, though these are undoubtedly

linked. Nevertheless, it is by no means apparent that particular traits are 'God given'. Indeed, evidence suggests that where 'entrepreneurial traits' exist, they are likely to be a result of past managerial or entrepreneurial experience.

In addition to studying the personality traits of OMs, some researchers have examined the effects of *personal characteristics* such as age, gender and ethnicity upon business growth. In the case of age, results appear inconclusive. Macrae (1992), Turok (1991) and Wynarczyk et al (1993) find no significant differences between high and low growth enterprises with respect to OM age. However, using increases in earnings as a measure of growth, Kalleberg and Leicht (1991) find that, particularly among male entrepreneurs, older owners are less successful than younger ones. They associate this with a reduction in the ability of older OMs to deal with the pressures of business ownership. Similar results are provided by Dunkelberg and Cooper (1982) who find that employment growth is negatively affected if OMs are aged over 30 at start-up.

Other studies suggest that middle aged entrepreneurs are more likely to own growing firms than either their younger or older counterparts (Kinsella et al, 1993; Storey, 1994). Storey (1994) hypothesises that higher growth among such entrepreneurs might be the result of a combination of the 'best' aspects of both old age and of relative youth - i.e. experience on the one hand and energy and enthusiasm on the other. The fact that most of the studies finding no association between OM age and business growth fail to measure for such a 'quadratic' form would appear to lend some support to this view.

With regard to the effects of gender, results are again fairly inconclusive. Whilst writers often contend that female OMs are disadvantaged relative to male OMs due to educational and family related barriers (Aldrich, 1989; Goffee and Scase, 1983), many of the studies available indicate that this has no effect on the growth

performance of female owned firms relative to those owned by men. Studies by Macrae (1992), Hakim (1989), Turok (1991) and Wynarczyk et al (1993) fail to isolate significant differences in relation to high and low growth firms. Uncovering similar results, and notwithstanding a recognised need for methodological improvements, Kalleberg and Leicht (1991) conclude that for their sample *"the determinants of survival and success operated in much the same way for men and women, suggesting that the processes underlying small business performance are similar irrespective of an entrepreneurs gender"*.

Despite these findings, some dissenting evidence does exist. For instance Johnson (1993), examining changes in employment over a three year period, finds that male owned firms grew on average three times as rapidly as those owned by women. Hisrich and Brush (1987) provide evidence to suggest that while failure rates are lower than the US national average, most firms owned by female entrepreneurs remain relatively small in terms of revenue and total employees, though no direct comparison is made with male business owners. Finally Rosa et al (1995), examining a variety of performance indicators, find that most showed significant differences by sex, suggesting that women performed less well than male owners. This is particularly evident for both the number of full-time employees and VAT registrations. However, in many cases, variations are inconsistent across industrial sectors whilst co-ownership with men also makes the effects of OM gender upon business performance more complex.

Research into the effects of ethnicity upon small business growth also gives rise to varying results. Comparing Hispanic and non-Hispanic firms in the USA, Welsch, Young and Triana (1986) recorded no differences between the two groups in numbers employed. Examining business failure rates, Wilson and Stanworth (1986) found that those recorded for Asian and Afro-Caribbean service and retail businesses were broadly similar to those recorded nationally. However, Afro-

Caribbeans were found to face more severe barriers to business entry and growth and less access to resources for overcoming them than either Asians or the population as a whole. Finally, examining retail businesses in three UK cities, MacEvoy and Aldrich (1986) find that overall, a higher proportion of Asian retail firms survived when compared to those with white owners over a six year period. However, this pattern appeared to reverse itself in the two years during which recession was at its deepest. The authors conclude that the results may reflect a lack of more attractive economic opportunities for Asians relative to whites in that they are forced to hold out in a declining sector, unlike whites who in better times are more able to move on to better things. In other words, higher survival rates do not necessarily arise for positive reasons.

Storey (1994) links research examining business growth and ethnicity to Stanworth and Curran's (1976) 'alternative' view of growth. This attempts to explain business ownership and subsequent growth in terms of an entrepreneurs social environment. Arguing that business ownership results from social marginality, the authors conclude that in the case of first generation owner-managers, the extent to which a firm grows is likely to be affected by the compatibility of the entrepreneurs own self-identity (as *artisan*, *classical entrepreneur* or *manager*) with his participative role in a firm which itself is likely to change as a firm grows larger. Thus the OMs desire to grow is strongly associated with the consequences, in social terms, of doing so.

A further group of factors closely associated with the view that the entrepreneur him or herself is central to the growth performance of small firms relate to the owner-managers *background and experience*. Particular aspects of these, it is argued, affect both the OMs level of competency and motivation. For instance, a number of studies find that management training is positively associated with growth. Walsh (1994), whilst failing to identify a relationship between measures of employment



growth and the amount of OM and other management training undertaken in Irish SMEs does find a relationship between the total number of people employed and the combined amount of training undertaken by OMs and their employed managers. Similar results are revealed by Birley and Westhead (1990) who find that those firms that had undertaken management training experienced the highest levels of sales, profit and total employment. However, Wynarczyk et al (1993) find that in general, the number of people employed by a firm is unrelated to the provision of training. Furthermore, they find that successful growth firms quoted on the Unlisted Securities Market (USM) provide less training for their managerial appointments than non-USM firms.

Although both Macrae (1992) and Johnson (1992) provide results which link management training to business growth, overall the evidence is relatively weak. In many studies, only associations between training and the total number of employees are evident and even here, contradictory findings have emerged. However, while this may be reflective of the *current* ineffectiveness of management training for small firms (Wynarczyk et al, 1993) it does not necessarily mean that an association between training and growth can never become more apparent, given that future provision is made to better address the factors influencing small firm growth (Lean and Chaston, 1995).

Another factor which has been related to small firm growth is the OMs level of educational attainment. Whilst Wynarczyk et al (1993) note that business ownership might not be regarded as an intellectual activity, they suggest that the higher opportunity costs involved might mean that the firms of better qualified individuals are more likely to grow. Meanwhile, Bates (1990), relating business longevity to educational achievement, argues that benefits arise because education facilitates access to business contacts and networks as well as further vocational training. Thus while education may only play a limited role in providing individuals with the

abilities necessary for entrepreneurship and successful business growth, it does provide an owner-manager with both motivation and access to resources.

Although the methods used to measure levels of educational attainment vary considerably, most evidence points towards the existence of a broadly positive relationship between small business growth and owner-manager education (Storey, 1994). Macrae (1992) finds that both founder and non-founder Chief Executives of high growth firms are educated to a much higher level than those of low growth firms. Johnson (1993) meanwhile shows that those firms owned by individuals possessing formal qualifications experienced higher rates of employment growth than those owned by individuals with none. Similarly Dunkelberg and Cooper (1982) find that the firms of owner-managers with a college education experience significantly higher employment growth. However, other studies present a less clear picture. For instance both Turok (1991) and Walsh (1994) find no significant association between the level of OM educational attainment and employment growth, although in the latter study an association with total employment does approach significance. Wynarczyk et al (1993) on the other hand found no relationship with total employment but did identify higher levels of educational attainment amongst high growth USM firms.

Though most relevant studies do link OM education to small firm growth, some areas remain relatively neglected. For instance, the relative impact of different courses of study and the degree of vocational orientation have not been adequately addressed. Indeed, the failure of most studies to take such factors into account might, in part, explain some of the varying results that have emerged.

Another aspect of the OM's past experience associated in the literature with small business growth relates to the entrepreneurs previous experiences of work. Both previous managerial experience and prior business ownership have been isolated as

having a possible impact, largely because of their likely effect upon the OM's level of business related competencies. Also, and more particularly in relation to OMs with previous management experience, a desire to match or exceed wage levels forgone through becoming self employed might lead to a high rate of growth (Storey, 1994). Furthermore, Gill (1985) in his longitudinal study of new small businesses finds that past management experience and prior part-time business ownership were useful in acquiring market knowledge. However, El-Namaki (1990) warns that a particular entrepreneurs past experience or technical expertise can result in a 'single track' approach to product/market development in SMEs, resulting in potentially more rewarding opportunities being missed or ignored.

In the case of the effects of previous management experience, whilst some studies find no relationship with growth (Kalleberg and Leicht, 1991), others find that significantly more OMs of successful firms had management experience before founding their business (Macrae, 1992) or that previous industry experience distinguishes between high and low growth firms (Siegel et al, 1993). Dunkelberg and Cooper (1982) demonstrate a positive association between both past supervisory experience and previous experience in producing the product currently being made and employment growth, though previous market and functional experience had no bearing on growth performance. Finally, both Dunkelberg and Cooper (1982) and Birley and Westhead (1995) find that the size of an OMs pre-start-up employer is a significant indicator of employment growth with the latter concluding that "*larger employers beget larger employers*".

Turning to the influence of previous business ownership, Kalleberg and Leicht (1992) again fail to identify any relationship with growth in earnings, as does Turok (1991) when comparing firms with growing and stable employment levels. Furthermore, in a comparative study of 'habitual' versus 'novice' business starters, Birley and Westhead (1993) find no significant differences in either growth in

employment or growth in sales and profit. This might in part be a reflection of the motivations of habitual owners who were found not to stress more "*materialistic*" reasons for starting their current business than novice starters. Indeed they were found to be slightly less inclined to want to grow their businesses than first time OMs. Wynarczyk et al (1993) meanwhile find that firms who had gained some business experience by way of running a firm on a part-time basis prior to start-up performed worse in terms of the total number of staff employed than those that had always been run on a full-time basis. Finally, in a study examining various aspects of OM experience, Stuart and Abetti (1988) find that while both the number of previous ventures owned by an entrepreneur and his highest level of previous management responsibility were positively related to a composite measure of business performance, other measures of experience (such as total years of management, marketing and technical experience) showed no association.

A final important factor connected to the owner-managers experience of work is unemployment. Smallbone (1990) observes that there is a higher risk of business failure in cases where the founder was unemployed at the time of start-up. Moreover, Wynarczyk et al (1993) find that an OM's pre-start-up employment status is related to the size of his or her firm in terms of numbers employed. Whilst lower levels of competency amongst unemployed people whose skills have become obsolete might explain in part such results, the role of motivation is also likely to be important. Curran (1986) categorises motivations for starting a business as being either 'negative', where an individual is effectively pushed into self employment due to a lack of alternative opportunities, or 'positive', where a person wants and freely chooses to become a business owner. Thus in addition to unemployment, negative motivations might also include dissatisfaction with previous employment (Gill,1985) whereas a positive motivation might be the identification of a promising market opportunity. A further frequently cited motivation is a desire for independence or control which, while perhaps beneficial in the very early stages of a

firms development, may increasingly lead an OM to opt for either slow growth or non growth strategies rather than lose the very thing that motivated him to start-up in the first place (Kets de Vries, 1985; Bosworth and Jacob, 1989). Such influences are reflected in research by Gray (1992) which implies that differing motivations affect the growth orientation of business owners and that this in turn has an impact upon the actual level of growth attained by businesses. A 1990 ACOST report comes to similar conclusions whilst North et al (1992) find that firms oriented towards growth are more likely to have survived over a ten year period than those that were not. Although Dunkelberg and Cooper (1982) find no association between the growth goals of a firm and its actual growth performance, Turok (1991) does find that growth firms are more likely to seek significant expansion. Clearly the relatively low levels of growth orientation reported by Hakim (1989) and Gray (1992) mean that the extent of any actual growth is likely to be limited even before the influence of other factors is considered.

Davidsson (1991) develops a model of small business growth at the heart of which lies the role of the OM's (or his/her management team's) *Growth Motivation*. Motivation is proposed as a key determinant of actual growth but is itself determined entirely by the OM's *perception* of three broad influences: *ability*, where associated factors include the OM's education and experience; *need*, which incorporates the influences of companies age and size; and finally, *opportunity* which includes such influences as market growth and access to capital. The OM's perceptions of these influences are in turn determined by the firm's actual, or objective, ability to grow, need to grow and opportunity to grow. Each of these also has a direct influence upon actual growth. It is the OM's perception of reality which is deemed to determine growth motivation because, it is argued, human information processing of objective phenomena "*is characterised by selective perception, limited processing capacity and various kinds of processing biases*" (Davidsson, 1991). The author attempts to validate his model through a survey of 400 Swedish

small firms. He finds that objective measures of ability, need and opportunity can explain a large proportion of variation in actual growth and that both objective and subjective measures of these factors also explain many of the observed variations in growth motivation. In both cases, need related issues are found to be more important than both ability and opportunity.

Although the consistency of results varies between sub-samples of firms (for example different industrial sectors), Davidsson's work would seem to have potentially important implications with regard to both further research and small firm policy. In particular, it suggests that a better understanding of owner-manager's *perceptions* of factors influencing growth and how they vary could help to explain both their level of motivation and the actual growth of their firms. Further, from a policy perspective, by addressing these perceptions through support provision, the possibility arises of influencing both growth motivation and, subsequently, actual growth.

### **2.3.2 Internal Factors**

This second broad category focuses upon those factors influencing small firm growth which pertain to the internal environment of the firm. Factors can again be sub-divided further, reflecting the variety of perspectives taken in the literature, into the basic *characteristics of the firm* (such as age, nature of ownership and legal form), those factors pertaining to its *organisational form*, those relating to the internal *management competencies* of the firm and finally those concerned with the *strategy* employed by the firm. Included in the latter group is the effect of strategic planning in small businesses. Whilst some factors might be regarded as extensions of the characteristics of the owner-manager, particularly in very small firms, the

focus here is somewhat broader, emphasising the impact of the characteristics of the firm itself and the way that it is managed.

Turning first to the basic *characteristics of small firms*, a large number of studies have sought to capture the effects of company age upon growth performance. Writing in 1995, Smallbone and North find that in terms of net employment growth, the contribution of small businesses established during the 1970's is far greater than is the case for firms set up before 1970. However, arguing that this is likely to be offset to an extent by lower chances of survival (see also Hall and Young, 1991; North et al, 1992; Ganguly, 1983), the authors conclude that "*employment creation...depends upon being able to realise the growth potential of all SMEs*" and that the targeting of small firms for support on the basis of age characteristics should be avoided. However, they do stress that the factors influencing growth will vary between firms in different stages of development and that support efforts should take this into account.

Also finding a significant relationship between company age and growth (here measured in terms of increases in net assets), Storey et al (1987) contend that younger firms grow more quickly in order to achieve the minimum efficient size for the industry in which they are operating. Once this is achieved, growth will slow down. The authors add that such a slow down in growth can also be partly attributed to a loss of motivation by OMs, a point underlined by the results of Davidsson's (1991) work which shows that the need of a firm to grow decreases with both age and size, reducing both growth motivation and actual growth. This is linked by the author to the attainment by the OM of a standard of living with which he or she feels content. Dunkelberg and Cooper (1982) also find that older firms grow less, with the rate of growth declining by 0.02% per year.

Other studies fail to find a relationship between company age and growth. In the case of Birley's (1986) study into employment change, this could be a result of the relatively young age of all of the firms examined. Her later study with Paul Westhead (Birley and Westhead, 1990) however shows age to be positively associated with growth, though this is less than surprising given that *total* employment, sales and profit are used as measures of growth.

The effects of company age upon growth are also strongly reflected in the stages of growth models, though few studies attempt to attach an age range to any particular growth phase. However, introducing the concept of 'demarrage', to explain small business performance, Fourcade (1985) argues that take off into sustained growth requires that the problems associated with the 'demarrage' phase are effectively addressed, and that these are likely to emerge between the second and fifth year of a firms operation. Thus the early post start-up period is a key phase in the emergence of growth firms.

Reynolds (1986) also finds that a large proportion of employment, sales and export contributions are dependent upon the development pattern of businesses, with those firms which achieve high levels of performance and growth during their first 18 months of trading making the largest contributions. However, the impact of company age on contributions is reduced due to the substantial number of firms that start small and do not grow. Nevertheless, the link between company age and company survival is shown to be strong, reinforcing the concept of "*the liability of newness*" (Freeman, Carrol and Hannon, 1983).

Results relating to the effects of size on business growth largely mirror those concerned with the effects of age and the reasons for this are also likely to be similar (Storey, 1994). Storey et al (1987), Davidsson (1991), Dunkelberg and Cooper (1982) and Johnson (1993) all find an association, though interestingly the latter



study finds that it is amongst the very smallest and the very largest of small businesses studied that net job creation rates are highest in percentage terms. Further, the fact that Storey et al (1987) find that once the very smallest of firms are excluded from their analysis, no relationship is apparent, demonstrates that the impact of firm size upon growth is most striking amongst the smallest of businesses.

Two further characteristics whose effects upon growth have been studied are company ownership and legal form. Using bivariate correlation analysis, Westhead and Birley (1995) find that firms with diverse ownership structures recorded high levels of employment growth. This supports earlier findings by the authors (Birley and Westhead, 1990) which show that firms with a diluted ownership structure are positively associated with total employment size. In their later paper, the authors suggest that the association may result from the opportunities available for drawing upon diverse skill bases. This argument is supported by work on 'team starts' by Vyakarnam and Jacobs (1993) and Muller-Boling (1993), though the latter notes that among German firms it is the combination of qualifications in a venture team start-up that most influences the success of a firm, not the number of partners. Citing evidence from Hakim (1989) and Kalleberg and Leicht (1991) on the role of legal status in business growth, Storey (1994) concludes that more rapid growth is experienced by limited companies than by either sole proprietorships or partnerships. However, he notes that changed legal status may in fact be a result of growth rather than the reverse.

Among other aspects of a company's organisational form which are cited in the literature as having an effect upon growth, some have already been addressed extensively in the preceding chapter on stages of small firm development and through an examination of the effects of different managerial styles in firms with different organisational forms (Covin and Slevin, 1988; Miller, 1983). A further aspect of organisational form which studies have linked to company growth is the

concept of the 'network' (Gibb and Davies, 1990). These can be either social networks centred around individuals or organisational networks where the focus is upon interactions between businesses (Szarka, 1990). Though Butler and Hansen (1988) stress that their purpose and nature changes as firms develop, they might best be described as arrangements *"that allow those firms in them to gain or sustain competitive advantage vis-à-vis their competitors outside the network"* (Jarillo, 1986 as cited in Jarillo and Ricart, 1987). However, Hellgen and Stjernberg (1987) draw a distinction between 'richly coupled networks' (based on control, power and dependence relationships) and more co-operative and co-ordinated 'loosely coupled networks'. Szarka (1990) argues that such differences can explain some of the variations in viability and growth found among otherwise similar small businesses. Johannisson (1991) goes further, pointing to the role played by networks in developing the internal competencies of small businesses. He concludes:

*"an elaborate personal network will not only provide the entrepreneur with access to a large resource base as a potential for (external) quantitative growth but will also supply perspectives and experiences needed for continued qualitative growth. In order to get access to both the needed production resources and necessary management capabilities without losing vital flexibility, network control of production and management resources appears to be more appropriate than ownership control in the entrepreneurial firm"*

Whilst the theory of small business networks has become increasingly well developed, relatively little evidence exists to confirm the existence of a link between access to networks of differing types and business growth. Exceptions include Aldrich et al (1988) who, examining social networks, find that certain variables describing network characteristics are significantly related to business profitability though interestingly, results suggest that profits are more likely where strong tie networks exist. An earlier study of 197 small firms owned by women in the USA (Carsrud et al, 1986) shows that networks are not of significant importance to

business growth in the early 'developmental' phase, but the authors suggest that they could be of greater importance during later 'growth' stages. Gibb and Davies (1990) while recognising that there is some support for the role of networks in the development of growth potential firms, particularly among high-technology businesses, stress the need for more research in this area of study.

White et al (1994), like Johannisson (1991), state that one of the key benefits of co-operative networking is the mutual accumulation of business related competencies among firms. Hall (1991) too views networks as one of a number of people dependent, information rich intangible resources which can have an influence on small business success. Other intangible resources include corporate culture and the know-how of employees which, he argues, *"is the intangible resource which produces a distinctive competence, which in turn can lead to a competitive advantage"*. In a small scale pilot study, the author finds that such resources are viewed by Chief Executives to be more important to success than 'people independent' resources such as intellectual property rights, trade secrets and databases. Of particular importance is product and company reputation and employee know-how. Indeed, a company's lead in employee know-how over its main competitor is tentatively shown to be correlated with growth in sales, leading the author to pose the question *"precisely which areas of employee know-how constitute the core competencies of the business?"*

A variety of studies have sought to identify those core competencies and skills most closely associated with business growth and development (Casson, 1982; Prahalad and Hamel, 1990). Since levels of competency might realistically be regarded as being open to influence by training and advice measures, such studies have particular implications for supply side oriented policy. Examining small firms located in rural areas, Townroe and Mallalieu (1993) identify nine competencies which may have an effect on business growth:

- 1) risk taking
- 2) team building
- 3) cash-flow control
- 4) production management
- 5) quality control
- 6) arbitrage
- 7) marketing
- 8) innovation
- 9) application of technology

Asking responding managers to rate their own ability in these skill areas, the authors go on to examine the probability of fast growth rather than slow growth in turnover by OM competency. Whilst also acknowledging the influence of external forces upon business growth, they find that overall, high levels of competency in production management offer a probability of fast growth and that the existence of marketing skills also has a positive effect. Other significant coefficients, for 'Quality Control' and 'Application of Technology' proved to be negative whilst the remaining competencies had no effect. O'Farrell and Hitchens (1988), citing evidence from their own previous research (Hitchens and O'Farrell, 1985 and 1986) also point to the importance of competency in production issues to the achievement of growth. They argue that a key reason why many firms fail to grow is that they are producing commodities that the market does not want, often due to poor design, poor quality and a lack of price competitiveness. They conclude that *"if a firm can solve its production problem successfully, it will have overcome a major constraint on its potential for expansion"*. Some supporting evidence is provided by Macrae (1992) who finds that high growth firms rate production management as being significantly more important than do low growth firms when both founding and non-founding OMs are included in the analysis.

Considering his findings as a whole, Macrae (1992) comes to the conclusion that *"the level of professional management is the main discriminating factor between high growth...and low growth Chief Executives"*. For the most part, his results suggest that external barriers to growth are an equal problem for both high and low growth firms. However, the management actions (for example, the emphasis on management skills and people management) and the strategic market stance taken by a firm do act as discriminators between growth and non-growth businesses. The author states that his findings underline the need for more training among UK managers, higher levels of which are shown by the study to be associated with higher growth firms.

An area of competence that has received particular attention in the literature is that of financial management. Milne and Thompson (1986), arguing that financial management is the *"fulcrum of business development"*, conclude that:

*"were more of the founders able to add financial judgement to market judgement effectively, then there would be a much more positive development of manufacturing company foundations."*

El-Namaki (1990) states that skill related factors are at the root of the financial management problems faced by small firms. Such factors are likely to include:

- 1) Difficulties in obtaining loans from financial institutions
- 2) Pressure to extend credit to customers
- 3) Slow collection of trade debts, and
- 4) Shortages of internal funds (cash flow problems) as a result of  
low profitability

Studies examining the problems faced by small businesses, whilst not explicitly concerned with growth, provide some supporting evidence regarding the importance of sound financial management. Inadequate working capital, cash-flow problems, controlling margins, profits and expenses and retrieving customer debts are among the constraints raised by small firms in studies by Terpstra and Olsen (1993) and Cromie (1991). Other problem areas experienced by SMEs relating to finance include over-gearing (a high debt/equity ratio) and overtrading (an inability to fund sales) (Argenti, 1976; Slatter,1984). A survey of bank managers by London Business School (1987) also finds a tendency to attach importance to financial management in order to explain small business failures, though this is perhaps not surprising given the chosen sample population. Issues relating to financial management (management of debts, management accounting, costing and estimating) were also rated highly by OMs and Official Receivers in Hall and Young's (1991) research into the reasons for small firm insolvency, though significantly, much more emphasis was placed upon the availability of external funding.

A particular aspect of financial management which has been highlighted by many studies is financial control (Gill, 1985; Milne and Thompson, 1986; Taylor et al, 1990; Gibb and Scott, 1985; Kruger, 1989). Argenti (1976) and Slatter (1984) argue that, among all size groups, inadequate cash-flow forecasting, costing systems and budgetary control can contribute towards business failure. Slatter goes on to suggest that control problems are particularly evident in small firms where financial accounts are often only kept up to the legally required minimum standard. Thus the detailed, up to date financial records which might aid strategic decision making often do not exist. Gill (1985) suggests that this lack of record keeping is largely due to a preoccupation with more pressing production matters amongst young SMEs. Hall and Fulshaw (1993) report that among firms in the British instrumentation industry, financial control variables explain the largest proportion of variation in

both change in profitability and growth in sales. The quarterly updating of cashflow records and efficiency in dispatching invoices and settling bills were associated with positive changes in both profitability and growth in sales. Quarterly cashflow forecasts were also important to achieving high sales growth though they had no effect on changes in profitability. However, Townroe and Mallilieu (1993) find no association between the level of OM competence in cash-flow control and business growth.

Storey et al (1987) use a number of financial ratios derived from the profit and loss accounts and balance sheets of UK small firms, along with a selection of qualitative measures, in an attempt to predict business failure. In doing so, they provide some indication as to what leads to business success and growth. Although the different statistical techniques applied to the data give rise to some differences in results, taken as a whole they emphasise the importance of levels of profitability and liquidity in failure prediction. Qualitative measures show failure to be associated with companies having fewer directors, longer account submission lags, loans secured by banks and also with having the past years accounts (but not those of the previous year) qualified by auditors. However, as pointed out by several authors (Gibb and Davies, 1990; Hall and Young, 1991), it is apparent that in many cases, such measures to a large extent reflect the symptoms of business failure and shed little light upon its causes.

Competency in the area of marketing is also cited widely in the literature as being an influence upon small business growth. Smallbone's 1990 study of success and failure, which utilises a survey of 46 new business start-ups, found that the marketing and selling of commodities was the key problem faced by firms. He proposes that this is a result of a lack of marketing skills and inadequate preparation, research and planning with regard to the definition and estimation of the markets that new firms hope to serve.

Slatter (1984), in his survey of the literature on all types and sizes of firm, also points to a lack of marketing effort as a key cause of company failure. He suggests that this lack of effort can manifest itself in any of the following ways:

- 1) Poorly motivated, non-aggressive sales force
- 2) Ineffective/wasted advertising
- 3) Poor targeting which misses key clients
- 4) Poor after sales service
- 5) Lack of market research/knowledge of buying habits
- 6) Outdated/insufficient promotional material
- 7) Weak/non-existent new product development function

Studying a small sample of successful and unsuccessful SMEs through in-depth interviews, Bennett and Hall (1991) find that approaches to marketing are fundamental in differentiating firms. For successful firms that had grown to employ over 100 staff in ten years or less, attitudes to marketing were seen to be the guiding force in all company operations and marketing competence was also present at board level. In addition to this, attitudes to the quality of customer care were regarded as being of considerable importance. Reflecting both this and the wider importance of selling and marketing skills, Atkin and Perrin (1995) find that an OMs ability to communicate is a common feature among growth small businesses. Meanwhile, Siegel et al (1993) report that an ability to develop close customer contact is associated, if only rather weakly, with business growth. Recognising the difficulties involved in quantifying this variable, the authors state that more research into its effects is warranted.

Gill, in his 1985 longitudinal study into the problems affecting small new firms, reports that finding and retaining a market is the major factor of importance. He suggests that problems arise partly due to a lack of market research, resulting from



the practical difficulties involved for small firms. However, the author finds that often, market knowledge has already been acquired by OMs through their past experience or through part-time business ventures. Milne and Thompson (1986), in a survey of 76 newly established firms, argue that in fact it is the OM's ability to judge market opportunities, rather than his market knowledge or marketing skills, that is a key discriminator among successful firms.

A number of other internal managerial competencies which may be required in small firms have been isolated as 'problem areas' in relation to small firm success, failure and growth, though in general, empirical evidence from the literature showing an association with growth is very limited. These competencies largely relate to operational functions such as human resource management, stock management and purchasing (Hall and Young, 1991; Terpstra and Olsen, 1993; Cromie, 1990; Smallbone, 1990; Storey, 1985). In the case of personnel management, Cromie (1990), Smallbone (1990) and Storey (1985) regard the recruitment of suitably skilled staff as the main problem, whilst the other authors also cite problems such as supervision, staff retention and training. Macrae (1992) in his study of growth and non-growth firms records significant differences between the two groups in the importance attached to 'People Management', with the OMs of growth firms rating it more highly. However, again the question of whether this is a cause of growth or merely a result of it remains unanswered.

Rather less evidence relating to the importance of purchasing and stock management capabilities exists, though in their recent study, Westhead and Birley (1995) find that new growth manufacturing firms tend to purchase raw materials from a diverse range of suppliers. The authors argue that this is likely to be in order to gain the required standard of supplies at competitive prices.

A final competency area raised in the literature in relation to its effects on small business growth is the ability of firms to undertake strategic or more general business planning activities. It is often discussed in the broader context of a *strategic approach* to explaining small business growth. As well as examining the nature and effects of strategic planning, many studies from within this approach take a more prescriptive line, advocating particular strategies for achieving growth. A number of these focus upon the process of product-market development. A final group of studies aligned to this approach are those that attempt to empirically evaluate particular strategies with a view to determining their influence upon growth.

The value of strategic planning to firms, whether they be large or small, is a much debated issue. Particular research interest has focused upon establishing what links exist between the use of strategic planning and company performance. Greenly's 1986 review of nine empirical studies examining firms of all sizes in the manufacturing sector found a fairly even balance between those claiming a relationship between planning and performance and those not (see Table 2.2 ).

**Table 2.2 The Relationship Between Planning and Performance :  
a categorisation of studies.**

Studies Claiming a Positive Relationship Between Planning and Performance	Studies Claiming No Relationship Between Planning and Performance
Ansoff, H.I. et al (1970) Gershefski, G.W (1970) Thune, S. & House, R. (1970) Harold, D.M. (1972) Karger, D. & Malik, Z. (1975)	Fulmer, R. & Rue, L. (1973/4) Gringer, P. & Norburn, D (1975) Kulda, R.J. (1980/1) Leontiades, M. & Tezel,A. (1980)

*Adapted from Greenly, 1986*

The application of tests of methodological rigour to the above studies failed to clarify the nature of strategic planning/performance relationships. However, Armstrong (1991) questions Greenley's interpretation of the nine studies and instead classifies three of those 'claiming no relationship' as 'ties' and a fourth (Kulda, 1980/1) as being in favour of a planning/performance relationship. Furthermore, updating evidence from an earlier study, Armstrong concludes the following :

- 20 studies found improved performance with formal planning
- 5 studies recorded no differences in performance
- 3 studies found formal planning to be detrimental to performance

As regards strategic planning and performance in SMEs, a number of studies have sought to investigate the relationship between the two. Though not all have provided positive results, most conclude that strategic planning is of value.

In a study of 51 retail and service sector small firms, Robinson et al (1984) find that the impact of strategic planning on the effectiveness of firms (measured in terms of sales growth, profitability, productivity and employment) was positive, though the strength of the relationship between planning and individual effectiveness measures varied between stages of development. Similar conclusions regarding the value of strategic planning are produced by Bracker et al (1988) and also Ackelsberg and Arlow (1985) who found that planning firms experienced greater increases in both sales and profits over a three year period than non-planners.

Examining levels of planning conviction, Welsch and Plaschka (1993) establish that 'planning zealots' achieved higher profits, made greater initial investments and placed more emphasis on growth. Recognising that "*intensity of belief in planning is not enough to bring about successful growth*", they do however contend that zealots follow through in their conviction with practical planning actions, providing some support for the argument that levels of enthusiasm for planning do affect performance outcomes.

Other studies (Robinson and Pearce, 1983; Robinson et al,1986) find no significant relationship between strategic planning and performance variables and suggest that operational planning plays a greater part in determining SME performance. Similarly, Shrader et al (1989) find that while positive correlations between strategic planning and certain performance indicators do exist, especially in the retail sector, operational planning seems to be of greater value in this respect.

Gibb and Scott (1985) point out that varying conclusions are probably a result of a failure to clearly define what constitutes planning as well as a lack of standardisation regarding the size of firms under examination. Higgins (1980) adds that in recognising differing results, "*it should be borne in mind that a) success can be achieved by some companies without planning and b) it is difficult, and often*

*impossible, to gauge what might have happened to companies who do plan if they had not ."*

In general, the literature suggests that a positive relationship does exist between strategic planning and small firm performance. However, evidence suggests that very few small firms pursue strategic planning with any degree of rigour, if indeed at all. Thus in the words of Shrader et al (1989), *"small businesses do not benefit from strategic plans primarily because they do not take the time or effort to formulate them."* Their survey of 97 firms confirms this contention, showing as it does that 67% of the sample of small businesses made no use of strategic planning.

Similarly, Unni (1981) finds that among ethnic minorities, only 10% undertook planning, whilst the figure for non-minority owners was 40%. Other factors identified by the author as having an effect on a firm's use of strategic planning include the owners age, educational background and experience, the type of ownership and the age of the firm. Meanwhile Carland et al (1988) find that the personality traits of small business owners had a significant effect on both the use of planning and the degree of its formality. Of the 368 firms which were surveyed, just 64 drew up formal plans.

A key reason for the apparent lack of strategic planning among small firms appears to be a shortage of time (Shrader et al, 1989; Unni, 1981; Gill, 1985). In particular, day to day operational problems tend to divert the attention of OMs away from longer term strategic issues. Other reasons given for not engaging in planning include past business successes without planning, a belief that planning is pointless given the unpredictability of business, a fear of data leaking to competitors and a lack of knowledge of how to plan (Kilzner and Glausser, 1984).

Despite the evidence cited above, Ackelsberg and Arlow (1985) found that 85% of the firms in their survey undertook some form of planning, though this figure falls to 50% when considering planning for between one and two years ahead, and just 18% for three to five years ahead. Schuman (1975) also finds that where planning occurs, it is usually informal and rarely extends beyond a one year time horizon. Recent reports even suggest that over three in five firms plan only up to one month ahead (The Guardian, 1993). Nevertheless, these findings do at least suggest that some degree of planning, albeit not necessarily formal in nature, does take place in small firms.

Rice (1983), carrying out interviews with 22 American SMEs establishes that although sophisticated data gathering and analysis techniques are not used, up to one third of all decisions made by firms are of a strategic nature. He suggests that the need for sophisticated planning procedures among SMEs is not as great as it is for large firms because the markets within which small businesses operate are more localised and of a more manageable size and nature.

Thurston (1983), whilst supporting planning in general, argues that *"the right amount and right structure of planning varies from company to company."* In particular he says that nine variables will interact to determine how effective formal planning will be:

- 1) Administrative style and ability
- 2) The ability of the Officer Group
- 3) The complexity of the business
- 4) The strength of competition
- 5) The perceived potential gains of planning
- 6) The role of leadership
- 7) The level of uncertainty

8) The understanding of formal planning

9) The effectiveness of planning

Thus sophistication in strategic planning is not necessarily a prerequisite for success among SMEs. Indeed, excessively formalised planning could actually be dysfunctional since it might detract from the flexible responses and entrepreneurial thrust of small firms (Ackelsberg and Arlow, 1985). Nevertheless, given the observed general improvements in performance among firms that plan on the one hand, and the apparent lack of SME planning on the other, a number of writers have attempted to design strategic planning models specifically for use in small firms. Since sophisticated models are generally deemed to be of limited use to small firms, they are usually flexible and informal in nature.

D'Amboise (1986) attempts to review the literature on the approaches to strategic planning in small business and to categorise studies according to the emphasis, orientation and focus of strategy building. Five groups of studies, with each group emphasising different types of strategic planning, are identified:

1) Signals -

Where signals, either internal or external to a firm, indicate the need for a plan.

2) Competitive Advantage -

Where competitive factors drive and shape planning (the identification of a niche is a common feature of this group).

3) Incremental -

Where current strategy is improved upon through identifying a firm's existing strategy and examining internal strengths and weaknesses and external opportunities and threats.

#### 4) Synoptic -

Where planning is objective driven, with alternative strategies being assessed upon their ability to achieve stated objectives.

#### 5) Futures Creative -

Where a firm shapes the environment rather than the environment determining the strategy of a firm.

Table 2.3 summarises the findings of d'Amboises review:

**Table 2.3 Elements of Emerging Strategic Planning Models**

Model Type	Author	Conceptual Only	Conceptual & Process	Process Only	Values#	Tools
Signals	Nagel Moyer Ragab		*	*		Checklist Questions
Competitive Advantage	Tremblay Van Auken & Ireland Cooper Robinson Dell'Aniello & Perreault	*	*		*	Budgets,charts  Chart
Incremental	Gilmore Green & Jones Thurston Wheelright Royal Bank House Auger Curtis d'Amboise Forbes Miller		*		*	Consultant Guide  Questions Questions Questions Budgets,table Worksheets Strategies, questions
Synoptic	Redinbaugh & Neu Schollhamer & Kuriloff Steiner Van Kirk & Noonan Fogel		*			Charts Charts,graphs, ratios Questions,lists
Futures Creative	Murray	*			*	Strategies

# indicates whether the model takes into account the managers values.

Adapted from d'Amboise, 1986 .



Gibb and Scott (1985) in their longitudinal study of product and market development in 16 small companies emphasise the importance of strategic *awareness* rather than of formal planning procedures. They conclude that support providers should aim to develop the ability of OMs *"to project into the future the consequences of present actions and to think strategically about these."* Though Gibb and Scott (1985) examine business development rather than growth per se, more recent research by Atkin and Perrin (1995) does support an association between growth and an OMs level of strategic reflection. Such findings are in contrast to the views of authors such as House (1979) who stress the need for concerted, conscious efforts and education to encourage formalised strategic planning.

Whatever planning approach is adopted, and whether it is formal or informal in nature, a number of constraints exist in the small firms sector which combine to influence the nature of strategy and narrow the range of possibilities available. Birley (1982) outlines the following four constraints which set small firms apart from larger corporations:

- 1) Goals - the objectives of a small firm are the same as those of its owner. In larger firms there is a greater separation between ownership and management.
- 2) Product/market choices - these are more limited for SMEs because of a lack of knowledge and resources to enable greater diversification and because of the greater relative impact of a failed attempt to develop a new or different market or product.
- 3) Resources - the abilities and inclination of the OM, and the extent to which he is able and prepared to devolve management, limits the rate at which a small firm can change.

- 4) Organisational structure - in small firms structure is consistent with the skills and inclinations of the OM and so can restrict the possibilities for change within a firm.

Th.P.Van Hoorn (1979) adds to these the constraints of limited manpower and capital, a lack of knowledge concerning the methods and means needed to plan and insufficient or inappropriate staff training.

Whilst some association between strategic and other planning activities and business growth would appear to exist in small firms, the fact remains that the outcome of adopting techniques for strategy formulation is in part dependent upon the objectives set by a particular firm. As many studies have shown, these might not necessarily include growth. Indeed, MacMillan (1975) argues that strategies designed to achieve growth effectively destroy the initial advantages possessed by small firms. He therefore concludes that smaller businesses should take advantage of their mobility, unanimity, commitment and innovative potential whilst deliberately restricting investment in fixed assets.

Despite these limitations, a number of studies have attempted to prescribe particular strategies for those firms that do want to grow. Porter (1980) outlines three types of strategy that firms in general might adopt to compete effectively in the market place:

- 1) Overall cost leadership, whereby a firm strives to provide a product with features acceptable to customers at the lowest competitive price;
- 2) Differentiation strategy, where a product is differentiated in some way from others in the market place;
- 3) Focus strategy, where a firm focuses on a narrow segment of an industry.

Given that they face particularly great resource constraints, the focus strategy is presented as that most suited to small businesses. This contention is supported by evidence from Siegel et al (1993) which demonstrates that high-growth small companies were more focused than their low-growth counterparts whilst among a sample of larger firms, high-growth was more likely to be associated with a strategy of market and product diversification.

Other potential strategies for successful start-up ('competitive entry wedges') are highlighted by Vesper (1980). Central to the range of variations presented by the author are three strategies:

- 1) New product or service;
- 2) Parallel competition (differentiation strategy);
- 3) Franchise entry, selling a proven undifferentiated commodity in a new area under licence.

Acknowledging the particular constraints faced by new and small firms, Cooper (1981) summarises the most appropriate strategies available to this group. These largely seek to exploit the inherent advantages of being small, although the importance of individual strategy prescriptions changes as firms develop and grow.

- 1) Choose a 'niche' and concentrate on specialist markets where it is possible to gain a competitive advantage;
- 2) Concentrate on opportunities arising from rapid change since larger firms tend to react more slowly to change - SMEs can adapt quickly;
- 3) Concentrate on short production runs, quick delivery and extra service - large firms are less flexible in these areas;
- 4) Use scarce resources, locate in areas with smaller labour forces and utilise unique approaches - large firms are less able to operate in such a way.

Studying successful growth strategies among medium sized firms in Britain and Germany, Taylor et al (1990) also stress the importance of 'niche' marketing. However they show that the nature of the niches exploited differs between British and German firms. They also find that early entry into growth markets was important to success for firms from both countries, a finding supported by Romanelli (1989). However, perhaps because of the larger size of the firms in the Taylor et al (1990) study, other studies provide conflicting evidence. Stuart and Abetti (1986) find that growth firms are not located in attractive growth markets but in more mature markets. They state that *"significant success may be more easily achieved by finding appropriate niches in less attractive, and therefore less crowded and dynamic markets"*.

Similar results are recorded by Westhead and Birley (1995). They find that amongst both new manufacturing and service firms, a strategy of competing with firms employing many people is more effective than operating in markets *"saturated by fellow new and small firms"*. Covin and Slevin (1988) meanwhile show that whilst firms in growth industries outperform those in mature industries, firms in emerging industries perform worse than those in both. Their results seem to support a three stage industry life cycle effect upon business performance and underline the importance of environmental conditions. Additional results show that the strategies adopted by firms vary significantly between industries.

Finding that the success of a particular strategy is contingent upon the stage of a markets evolution, Sandberg and Hofer (1986) conclude that among new ventures, a broad strategy was effective in growing industries at an early evolutionary stage whilst a narrow segment strategy was successful in mature industries at a later stage in their development. Further, ventures are shown to be more successful in industries with heterogeneous products, suggesting that differentiation might provide a useful gateway to successful market entry. However, Stuart and Abetti

(1986) find no relationship between product uniqueness and growth and suggest that this might be more important to new product success than it is to new venture success.

Other studies confirm the importance of market conditions in influencing the effects upon business growth of different strategies. Covin and Slevin (1989) discover that different strategies are appropriate for small firms in hostile and benign environments. In hostile environments, levels of satisfaction with financial performance were positively related to an 'entrepreneurial' strategic posture (high levels of innovation, risk taking and a competitive orientation) as well as to an organic firm structure and a competitive profile characterised by long term orientation, high product prices and a concern for predicting industry trends. Conversely in a benign environment, performance was positively related to a conservative strategic posture plus a mechanistic firm structure and a competitive profile characterised by conservative financial management and a short term orientation, an emphasis on product refinement and a willingness to rely heavily on a single customer.

McDougall and Robinson (1988), examining 247 firms aged less than eight years in the United States, find that variations in "*strategy-industry structure fits*" account for 81% of the variance in company financial performance and 60% of variance in market share growth. Assessing the significance of strategy and industry structure, they conclude that their work "*offers strong evidence that the real key to explaining new venture performance is the interaction of these two variables*".

Examining differences in the survival rates of 29581 US start-ups, Hay, Verdin and Williamson (1993) found that survival chances were significantly better in market environments where:

- 1) The manufactured product requires much service support;
- 2) The purchase frequency is low.

Conversely, the following product-market characteristics were found to feature in hostile environments where the chances of start-up survival was low:

- 1) Need for skilled employees;
- 2) Make-to-order supply environments;
- 3) Dependence on channel support for distribution to customers;
- 4) Fragmented customer base.

Arguing that success in some markets is more likely than in others, the authors conclude that *"careful analysis of product market characteristics prior to choosing your 'battlefield' can give entrepreneurs...a better chance of survival, and with it, potential success"*.

Romanelli (1989), studying the early survival of start-ups through a longitudinal study in the mini-computer industry, finds that for most environmental conditions, aggressive and niche strategies increase the chances of survival. However, if market sales are growing, generalists are more likely to survive than specialists, whereas decreasing market sales see aggressive organisations with a diversified range of products doing less well. Interestingly, Birley and Westhead (1990) find that none of the measures of growth that they use are affected by either a firms total number of product lines, the total number of new product lines nor the degree of reliance on a single product line, though they do not examine the effects of different market conditions. In line with other studies, Romanelli (1989) concludes that *"founders can overcome hazards of start-up by tailoring strategies to environmental conditions"*.

Wynarczyk et al (1993), in assessing what they call the "*structure-conduct-performance paradigm*" state that for economists, the structure of the market is the dominant influence on business growth whilst for strategists, business conduct will be the dominant influence on company performance and that this will in turn influence the structure of the market place. Finding differences between growth USM firms and lower growth firms in the same markets (i.e. where market structure was held constant) the authors conclude that "*there is considerable validity in the argument that it is conduct, rather than market structure, which is the dominant element influencing firm performance*". It is certainly in the area of business strategy that links with the external business environment and its effects upon business growth are clearest.

### **2.3.3 External Factors**

The growth of small businesses can also be viewed as being determined by factors which are concerned not with the nature, abilities and actions of the small business owner-manager and his or her firm, but which relate to the environment outside the firm. The previous section has shown how the effects of different aspects of internal management and strategy may be viewed as being contingent on the nature of the external environment. Though overlaps between the two categories are indeed considerable, here the focus is more explicitly upon external influences and three main perspectives are examined: the *population ecology* approach, the impact of *external barriers to growth* and the effects of organisational *location*, with particular reference to small firms in rural and peripheral areas.

The *population ecology* approach to explaining small business growth argues that firms which are well adapted to their environments will survive and that those that are not will fail (Aldrich, 1990; Hannan and Freeman, 1977). Thus the environment

selects the fittest firms which are most adaptive to change. In so doing, it determines the nature of the business population. Though the phenomena and processes examined by population ecologists are similar in many respects to those explored by strategists, its Darwinian perspective ensures that it takes a more deterministic view on company growth. Thus strategic adaptiveness is seen in the context of the broader evolutionary process.

Aldrich (1990) considers business founding rates through an examination of intra-population processes (prior foundings, dissolutions and firm density) which comprise the structure of the business environment, inter-population processes (competition and co-operation between firms and the actions of dominant firms) which influence the distribution of resources in the environment and institutional factors (such as government policies and cultural norms) which shape the broader context of both sets of processes. From the limited evidence available, the author concludes that intra-population processes have the greatest influence upon businesses once they have been founded. He states that one of the major implications of this is that greater attention should be paid to the overall carrying capacity of markets. This again points to the dominance of the level of demand in relation to the number of firms in a particular market over the effects of different types of strategies.

The influence of different aspects of market structure have already been examined in the previous discussion on strategy. However, some further studies provide additional insights in to the effects of the level of market demand. Though he makes no specific attempt to assess its impact on business growth, Storey (1985) identifies a deficiency of demand as the major problem faced by his sample of new small firms in North East England. Smallbone (1990) too concludes that a lack of demand is the single most important problem facing surviving small businesses, as well as being the biggest cause of business failure. Yet in contrast to Storey (1985), he



argues that improved marketing skills and a more committed approach to the design of business concepts can be effective in overcoming its effect.

Despite the evidence above, the relatively few studies which examine the effect of market demand on small firm growth give mixed results. Macrae (1992) finds no differences between growth and non-growth firms in their perception of the importance of market demand as a barrier to growth. Davidsson (1991) however finds that both market growth and market concentration are associated with small business growth, but that they only account for a very small proportion of growth relative to other factors. Meanwhile, the 1987 London Business School study into reasons for small business failure notes that it is the state of the local economy, as opposed to the national economy, which is the most commonly cited reason for failure.

Through examining inter-population processes, the population ecology perspective also highlights the influence of competition, co-operation and dominant firms within a market. Porter (1985) identifies five external 'forces' which can affect a firm's competitive advantage and thus its performance: the power of competitors, customers and suppliers and the threat of new entrants and new substitute products. For small firms, he argues that competitor strength and customer concentration are of particular importance, with competitor strength having a negative impact but with the effects of customer concentration varying, in part in relation to a firm's sales resources.

Examining the effects of a range of market profiles, Birley and Westhead (1990) find that no measures of growth are affected by the level of reliance on local suppliers or the number of competitors in the market place. However, growth (measured in number of employees and level of sales) is found to be positively related to the total number of customers, the number of new customers, the total

number and number of new suppliers, the distance from customers and the size of the main market competitor.

Macrae (1992) reports that growth firms regard the actions of competitors as being significantly more important than do non-growth small businesses whilst, as already noted, Stuart and Abetti (1986) find that highly competitive, dynamic markets have a negative effect on business growth.

Holl (1993) provides evidence to show that barriers to entry in markets where both small competitive firms and large dominant organisations exist push up costs in 'fringe' SMEs, resulting in lower gross rates of return on capital. Gibb (1987) also points to the influence of decisions made by large firms about sub-contracting arrangements as well as the likely impact of strategic co-operative partnerships between large and small firms (Gibb and Davies, 1990). A number of other studies examine the effects of market conditions on small business growth but as already discussed, this is done in relation to the strategies employed by individual firms.

The links between the strategic approach to explaining business growth and the perspective taken by population ecologists is apparent, stressing as they both do the importance of industry structure and competitive and strategic processes. Aldrich (1990) implies that the main distinction between strategists and ecologists lies in the purpose to which models are put, with the former being concerned with prediction and the latter with analysis. What is perhaps more apparent is that the two approaches present different positions on a scale, both recognising the role of strategy and structure, but each placing a different degree of emphasis on the two elements. Such differences are to a large extent reflective of the different theoretical traditions of management and economics (Wynarczyk et al, 1993). The continuing debate between authors favouring one or other of the approaches is a persistent feature of the literature on the factors influencing small business growth.

The 'institutional factors' referred to in population ecology theory might also be regarded as external burdens or *barriers to growth*. While these vary considerably from sector to sector (Gibb and Davies, 1990), some broad categories can be identified. First there are those that result from governmental action, either at a local, national or pan-national level. Chilton (1984), writing about the regulatory environment in the United States, concludes that *"the best way for government to have a positive influence on the entrepreneurial environment is to do as little as possible to small business rather than to do as much as possible for small business"*. In addition to environmental, safety, labour cost and paperwork requirements and regulations developed during the 1970's, the author is also critical of financial loans, grants and procurement programmes which he argues mis-allocated resources and were ineffective. He favours continued deregulation and a support role which centres upon providing management advice and liaising between businesses, sources of private finance and the central government.

In the UK in 1985, the Department of Trade and Industry (1985) identified the following twelve governmental burdens on business: VAT, PAYE, National Insurance contributions, statutory sick pay, planning controls, fire and building regulations, employment protection law, wage controls, health and safety regulations and company and consumer law. The report argues that for most businesses, the compliance costs are largely related to the loss of staff time rather than direct costs. Robertson (1992) adds business rates to the list of governmental burdens on small firms.

Although the possible effects of certain government regulations have received considerable media attention, relatively little research attempts to assess the impact of such measures on business growth. One exception is the study by Terpstra and Olsen (1993) examining the problems faced by 121 fast growth firms in the USA. They find that regulatory burdens (including insurance, licensing/bonding, changes

in government regulations) are cited as being problems during the later 'growth' period more often than they are in relation to the start-up period. This suggests that they represent a greater burden for more mature firms seeking expansion, though problems associated with internal financial management, marketing, human resource management and general management (planning, leading, work pressure) are all cited more frequently.

An external barrier to growth which has been studied more extensively is the availability of external funding. Terpstra and Olsen (1993) find that at start-up, this represents the second greatest problem after sales and marketing factors, though for older growth businesses, it is considerably less important, a finding supported by Smallbone (1990). Nevertheless, Binks (1979) argues that in trying to expand, small firms face particular problems because lower retained profits mean that any given increase in output requires a higher proportion of external funding.

Following increased public concern and media interest over the last five years, particular attention has been focused upon the role of banks in providing external funding. Much criticism has centred around the level of interest rates and bank charges imposed on firms. The Cambridge Small Business Research Centre (1992) find that among the constraints on a firm's ability to meet its business objectives, the availability and cost of finance for expansion and of overdraft facilities are ranked first and second respectively for fast growth firms. However, White (1993) reports that all recent cuts in base rates have been passed on to bank customers and that where lending margins have become wider, this reflects the high levels of risk involved in lending to small firms. A survey of over 6000 firms by Bannock (1993) for the Forum of Private Business also shows that while interest rates are strongly influenced by the size of businesses, too great an emphasis on the extent to which cuts are passed on to firms is inappropriate. Higher rates reflect the fact that a firm's ability to repay is usually contingent upon project growth being realised. Further,

high interest rates and charges are shown to impact more upon declining firms rather than growing firms. The author argues that the prominence of these issues has served to divert attention away from more important concerns such as the bank's requirement for a larger proportion of fast growth firms to provide personal collateral for overdrafts and the nature of the working relationship between banks and small firms. Both he and Chaston (1994) conclude that closer contact between banks and small firms is central to improving the relationship between them.

Regarding the nature of bank-small firm relations, Cowe (1993) reports that creditors have been criticised by insolvency experts for being too defensive and insufficiently supportive when dealing with firms suffering from financial difficulties. He states that creditors are *"too eager to get their hands on what money there is, without thought to what money there might be in future if a company is allowed to survive"*, a conclusion also supported by Prescott and Welford (1992).

Arguing that higher interest rates also reflect *"the endemic conservatism of bank managers"* Hall (1989), in his review of past studies, concludes that *"some weak evidence suggests that the capital market is an inhibiting force on the growth of innovative firms, but not necessarily cripplingly so"*.

Most empirical studies in the area of external funding focus on the impact that different types of funding have on small firm growth. Birley and Westhead (1990) find that the number of sources of finance used by a firm (excluding bank overdrafts) is not related to levels of employment or sales but is negatively associated with company profit. This suggests that firms that have not obtained external financial investment will perform better in terms of profit. In a later study, Westhead and Birley (1995) employ multivariate analysis to show that for new service firms, employment growth is associated with the avoidance of the use of personal savings, family and friends as sources of investment during start-up. They

argue that those using such sources are more likely to be cautious and risk averse, leading to lower growth. Bivariate results indicate that service firms obtaining finance from customers and suppliers achieved higher employment growth.

Dunkelberg et al (1987), studying 1178 small US firms, find that reliance on different sources of new funds varies between growing and declining firms. Growth firms are more likely to use company earnings, funding from financial institutions and increases in trade credit. However, Turok's (1991) study of 166 businesses in West Lothian was unable to identify any significant differences in the source of start-up capital employed between growth and stable firms, a finding supported by Dunkelberg and Cooper (1982) in their study of employment growth.

Addressing the issue of access to funding in general, Macrae (1992) finds that there were no significant differences between growing and declining firms in their perception of the importance of the availability of suitable finance as a barrier to growth. Also, and in contradiction with Bannock's (1993) results, no differences in perceptions of the cost of finance as a barrier to growth were apparent.

Storey (1994) argues that one factor which distinguishes growth firms is their willingness to share equity as a means of funding expansion. Studies by the Cambridge SBRC (1992), Kinsella et al (1993), Solem and Steiner (1989) and Storey et al (1989) all show that fast growth firms were more likely either to have shared (or be willing to share) equity, although Storey (1994) concedes that to be able to attract investment in the first place, a good past growth record is likely to be important. Research from the USA however suggests that only a small proportion of small firms are able to attract equity financing. This has led to calls for the creation of better targeted and more effective equity investment vehicles and the enhancement of awareness about alternative means of financing among SME OMs (Neiswander and Drollinger, 1986).

One means by which equity investment has developed rapidly in the USA and more recently in Britain has been via the Informal Equity Capital Market (Freear and Wetzel, 1992; Mason and Harrison, 1993). Informal investments in firms by private individuals provide firms at all stages of development with the means required to grow. Such an opportunity is generally not offered by venture capital firms because the investment required by SMEs often fall below the minimum size of investment considered by such organisations.

In the UK, Business Introduction Services (or 'Business Angel' schemes) have been developed through a number of TECs (including Devon and Cornwall) in order to bring together small firms and investors in an attempt to stimulate growth in regional SME sectors (DTI, 1994). The scheme also encourages investors, who are often experienced business people, to play an active role in guiding and advising the small firms in which they have invested. By augmenting management competencies, this too is likely to affect the performance of participating firms in a positive way.

Thus whilst the evidence is by no means conclusive, overall it appears that access to external sources of capital is important to the growth of many small firms.

A further external barrier to growth is the availability of suitable premises. Turok (1991) and Hakim (1989) both find that growth firms are more likely to be based in business premises than at home, showing the obvious requirement for greater amounts of space to facilitate growth. A need for space amongst young small firms seeking to expand is demonstrated by the higher frequency of moves by such firms in relation to older businesses (Storey, 1985). However, among growth businesses, a lack of suitable premises is shown to be surpassed only by a lack of finance as a perceived constraint on expansion by Turok (1991). Further, while overall it is ranked lower than other factors as a constraint on growth in the study by Cambridge SBRC (1992), its importance among fast growth firms is rather higher than is the

case for stable and declining businesses. Cromie (1989), exploring the problems faced by firms experiencing "*demarrage*" (Fourcade, 1985) also finds premises related difficulties to be more important than any other production problem, whilst Smallbone (1990) identifies the problem of unsuitable premises as a serious one amongst successful 'growth potential' small businesses with a turnover greater than £100,000.

Despite this evidence, the lack of prominence given to this factor by other studies (ACOST, 1990; Storey, 1985; Terpstra and Olsen, 1993) does suggest that its importance varies considerably and that local and regional differences in the commercial property market may have an effect.

Labour constraints too are frequently cited in the literature as external barriers to growth. Cromie (1989) states that the problem that stands out above all others is finding sufficiently skilled staff. Some support for this argument is provided by Turok (1991) who finds that a lack of work force and management skills is more of a constraint for growth firms than it is for stable companies. However, other constraints are shown to be considerably more important. Nevertheless, Macrae (1992) finds that a lack of suitably qualified people and the availability of suitable managers are two of just four factors showing significant differences between growing and declining firms in their importance as growth barriers.

The 1990 ACOST report also points to the difficulties of finding and subsequently retaining good staff in order to create an effective management team. A particular problem highlighted is that technical experts often lack more general management skills. The report prescribes improved general education and better training as a solution to these problems.



Storey (1985) finds that among new firms in Cleveland, skill shortages are cited as the main problem being faced. For wholly new firms, skill shortages also represent a problem, particularly amongst high profit firms. The attitude to work of staff was also regarded as a problem by some.

Wynarczyk et al (1993) provide some evidence as to the type of managers that fast-growth firms recruit. They find that recruitment is more likely to be external and that new managers are more likely to be brought in from larger firms. What is less clear from the research is whether such appointments are in fact the cause of higher growth.

A final external barrier to growth considered here is the late payment of debts. The problems associated with debt collection have recently given rise to increased pressures on government by lobbyists and the Labour Party to allow small firms to charge interest on overdue payments (Guardian, 08/11/93). Whilst results should clearly be treated with caution, a recent survey by the Liberal Democrats of OMs in Plymouth and Cornwall shows that over half of those questioned feel that the late payment of debt has been a threat to the survival of their firms. Fifty six percent report that late payment has resulted in cut backs in investment or growth. The collection of accounts receivable is also cited as a problem for growth potential firms by Terpstra and Olsen (1993) and Cromie (1991), though no attempt is made to quantify its impact on growth. Further, the extent to which this problem is truly external in nature or, alternatively, is associated with internal competencies such as credit control and cash-flow management is debatable.

A final area of research of potential importance to this study concerns the spatial aspects of small firm growth. In particular, what effects do a rural and/or peripheral location have upon small business growth? Further, do peripherally based firms face different impediments to growth than urban firms?

North and Smallbone (1993) find that overall, SMEs in rural areas showed higher rates of employment growth than those in both outer metropolitan and urban areas, though the youngest and smallest rural firms did less well. In their study of 126 firms, all aged over ten years, increases in output (which show no significant spatial variation) are more likely to be reflected in employment growth in rural areas. Calculating that a 200% increase in sales turnover would result in an average 60% increase in employment in central London compared to 175% growth in a rural firm, the authors state that "*SMEs may have similar opportunities to grow [in output] in different locations, but their means of achieving it would seem to have very different employment consequences*". They conclude that the labour constraints faced by urban firms (leading to higher levels of capital investment) along with the greater opportunities available to them for subcontracting help to account for differences in employment generation.

Developing their work further, Smallbone, North and Leigh (1993) find that the extent and nature of strategic adjustments made by mature SMEs in urban and rural areas, whilst largely similar, did vary in some instances. They argue that differences in strategic adjustments reflect the varying nature of constraints faced by firms in different locations. For rural firms, the relatively small size of their markets and their distance from other markets is reflected in a greater emphasis on product/market adjustments. Lower levels of economic growth inhibit opportunities for small business growth based on localised markets (O'Farrell and Hitchens, 1988). The authors argue that the resulting demands in relation to finance and management control necessitate particular attention from support agencies. The study also notes that in rural areas, growth is more likely to entail relocation, partly as a result of the smaller size of rural businesses, and it therefore concludes that a policy of providing appropriate industrial space is of some importance.

In a later paper, Smallbone and North (1995) show that variations in employment growth between rural firms and those located in London and outer metropolitan areas are not a result of the younger age of rural firms. Whilst younger rural firms did outperform those located in London during the 1980's, the same was also true of older firms established between 1950 and 1969. Similar results are provided by Cambridge SBRC (1992) who conclude that there is *"a clear general tendency for all SMEs surveyed in rural settlements to record better employment performance than their conurbation counterparts"*.

Keeble et al (1992) also find that employment growth in rural firms has been greater than in urban firms. Between 1988 and 1991, their sample of 1022 firms of all ages, some of which were located in rural and urban areas of Devon and Cornwall, grew on average by 4.1 jobs per firm in remote rural areas, 3 jobs per firm in accessible rural areas but declined by 1.7 jobs per firm in urban areas. However, these differences are largely accounted for by differences in larger firms, with employment growth among smaller firms being broadly similar in each location. In a later paper, Vaessen and Keeble (1995) find that a greater proportion of SMEs in Wales, Northern Ireland and Scotland attained rapid growth than was the case with firms in the South East of England. They conclude that *"economic conditions in peripheral Britain do not inevitably adversely affect the performance and growth of small and medium sized firms located in these regions"*. Comparing firms from different regions, their results suggest that it is *"the high frequency of firms who report employing external training services in addition to internal training programmes which distinguishes rapidly growing peripheral firms from slow growth SMEs (both in the periphery and in the South East) as well as from rapid growth firms in the South East"*.

The Keeble et al (1992) study also highlights a number of internal and external constraints on growth which were significantly more important for rural firms than

urban businesses. The most apparent of these are shortages of skilled and technical workers as well as managerial and professional staff, certain premises constraints (particularly in relation to the availability of larger units) and poor telecommunications and transport facilities. These constraints are broadly reflected by the findings of Townroe and Mallilieu (1993) who isolate constraints related to distance from key markets, labour shortages and the limited physical capacity of firms to expand as the major barriers facing small firms in four rural counties, including Devon. As Keeble et al (1992) point out, these constraints are largely specific to the locality. This gives some strength to the argument of Chell (1988) who concludes that *"whether the location is urban, semi-urban, semi-rural or rural is not important in itself. What is important are the features of the particular locality which may facilitate the entrepreneurial process"*.

General perceived advantages and disadvantages of a rural location are also examined by Keeble et al (1992). Benefits include the effects of an attractive environment on labour force attributes and lower wage and premises costs. Drawbacks include distance from customers, suppliers, service and training facilities along with shortages of labour. Keeble et al (1992) also note that the attraction of the rural quality of life is an important element of business ownership in the countryside. The authors conclude that any policy initiatives must therefore *"recognise the need to maintain the balance between the conservation of the rural environment and an enterprising rural economy"* particularly since it is the appeal of the countryside which leads many migrant founders to set up businesses in the first place. Townroe and Mallilieu (1993) conclude that in addition to influencing the choice of business location, the *"rural lifestyle factor"* also affects the aims and ambitions that people have for their businesses and moreover is likely to *"place a disjuncture between past achievements and experiences and future performance"*.

Blackburn and Curran (1993) examining service small firms in rural Norfolk and four urban localities, find only limited differences between urban and rural firms. Again there is some evidence for higher employment and turnover growth among rural firms along with greater difficulty in recruiting staff, though employee turnover is significantly less of a problem. Overall however, the authors find that differences between urban and rural firms are generally no greater than they are between urban firms in different cities and conclude that these are "*often difficult to link clearly with specific local influences, particularly of a non-economic kind, which show local cultures or associated behaviours at work*". Similarly, Westhead (1995) finds that new owner-managed businesses in rural and urban locations share more similarities in terms of their start-up motivations, characteristics and employment growth than they do differences. However, a small number of differences are identified, including greater labour supply problems in rural areas which the author concludes necessitates the provision of high quality training in rural areas. He also stresses that there is a need for further research using qualitative research techniques in order to more fully evaluate the advantages and disadvantages of a rural location for new and small firms.

Overall, research into the effects of location on small firm growth provides some evidence to show that employment growth is generally higher among rural enterprises. However, at the same time, the absolute size of firms is frequently smaller than is the case in urban areas (North and Smallbone, 1993). Further, the factors influencing small firm growth are generally accepted to vary spatially to a limited degree. Supply side difficulties relating to the availability of skilled workers and managers are particularly apparent in peripheral regions (O'Farrell and Hitchens, 1988; Westhead, 1995), implying a continuing need for training and small business support.

## 2.4 Conclusion

The literature on small business growth is particularly wide ranging in scope. However, reflecting the heterogeneity of the sector and the varying academic interests of those carrying out research in the area, the methodologies and conceptual perspectives adopted differ considerably. This has meant the in relation to the central area of interest - the factors influencing small business growth - little attempt has been made to develop a holistic model to explain small business growth. Whilst the 'stage models' of growth do provide insights into the process of growth, their limitations are well documented, particularly when it comes to explaining the causes or driving forces behind the process. Perhaps the work of Davidsson (1990) comes closest to proposing a viable explanatory mechanism for growth in small business. However, this is only achieved by adopting a deliberately high level of abstraction. It seems that in searching for a more holistic explanatory framework, the inevitable consequence is to lose some sense of the considerable complexity and variety which are fundamental features of the small firm sector.

As regards young post start-up businesses, recent literature concerning growth and the factors that might affect it is very limited. This is reflected in the increased enthusiasm amongst researchers in those middle-sized small firms that are broadly equivalent to the so-called 'middlestrand' businesses heralded as being partly responsible for the success of the German economy. Given the lack of any substantial research on issues of growth as they relate to young post start-up businesses or micro organisations, the preceding literature review has been of a rather general nature, drawing on research from the SME sector as a whole. As such, the literature does not provide a wholly satisfactory foundation for grounding the proposed research. Evidence regarding critical growth factors comes primarily from larger or older firms. However, it does serve to highlight that gaps do exist in our current understanding of post start-up business growth and so indicates where

additional research is required. Of particular importance is need to characterise and understand more fully the nature of post start-up growth businesses as well as a need to examine more closely the possible influences on the growth process.

## **CHAPTER 3**

### **SUPPORT PROVISION FOR SMALL FIRMS**



### **3.1 The Development of Small Firms Policies in the United Kingdom - an introductory overview**

Government assistance to small firms can be seen as a relatively new development in the history of post-war industrial policy in the UK. The changing thrust of government policy over the period reflects the changing nature of attitudes towards public intervention in private organisations of successive administrations

The nature of government assistance to firms of all types during the late 1950s and 1960s can be viewed in the wider context of an approach to industry-government relations which became increasingly interventionist during the period, particularly with the creation of the National Economic Development Corporation (NEDC) in 1963 and later movements towards French style indicative planning. Support was overwhelmingly aimed at the largest corporations whose survival was regarded as crucial to the economic well being of particular regions as well as the nation as a whole.

The formation of the Industrial Reorganisation Corporation in 1966 typified government attitudes of the period, encouraging as it did the concentration of industry through rationalisation and merger in order to capture the economies of scale deemed necessary for firms to compete in international markets. Ad hoc measures, designed to support struggling industries such as aircraft and ship building through the provision of subsidies, also favoured large firms.

Only with the appointment of the Bolton Committee in 1969 and the subsequent publication of its report in 1971 did governments take significant steps specifically designed to help small firms (Beesley and Wilson, 1982). Though the committee concluded that positive discrimination by governments in favour of small firms was not justified, it stated that some aspects of existing legislation had a negative and

discriminatory impact on small businesses (Bolton, 1971). Therefore, subsequent governments, both Labour and Conservative, sought to remove such burdens.

Cable (1986) states that measures to help small firms by the 1970-74 Conservative government reflected a broader movement by the party away from structural solutions and intervention towards increased reliance upon competitive forces. However, social and political considerations forced both that Conservative government and the 1974 Labour government to continue to direct substantial assistance towards large firms. Thus as Wilson (1990) states,

*"By the late 1970s, British industrial Policy was expansive but ineffective, distributing subsidies to many doomed industries in response to political pressures from them".*

The return to power of the Conservatives in 1979 brought about a firm and more permanent shift away from large scale industrial intervention which was accompanied by an increased emphasis on encouraging the development of the small firm sector. Stanworth and Stanworth (1990) link this to a movement towards the development of an " *enterprise culture* " which was essentially political in nature and which sought to promote the attributes and beliefs of the 'petite bourgeoisie' as "*morally and economically superior to rival value systems*". It also accompanied a period of substantial economic restructuring and unemployment and so can be viewed as a necessary policy response to the circumstances of the time.

Some of the more important schemes started before 1988 and run largely by the Manpower Services Commission (MSC) or its successor, the Training Agency (TA), are summarised below:

- 1) *Loan Guarantee Scheme* (1981) - guaranteeing a fixed proportion of a small business loan for an additional interest premium;
- 2) *Enterprise Allowance Scheme* (EAS, 1982) - providing a weekly allowance, initially for one year, for unemployed people seeking to start new businesses. Complimented by training programmes such as the Business Enterprise Programme (BEP) and the Business Enterprise Scheme (BES);
- 3) *Small Firms Service* - information and advisory service. Other sources of information include the Rural Development Commission and government funded Local Enterprise Agencies (LEAs);
- 4) *Business Expansion Scheme* (BES, 1983) - providing income tax relief on shares subscribed to unquoted companies;
- 5) *Enterprise Zones* (1980) - incentives provided within strictly defined inner city areas.

Since 1988, a variety of new schemes have been introduced through the Department of Trade and Industry's 'Enterprise Initiative' (DTI, 1988). These have included the Consultancy Initiative, which provides subsidised external advice on a functional basis, the Small Firms Merit Award for Research and Technology (SMART), to encourage innovation, and the Support for Products Under Research scheme (SPUR) to support the development of new technologies and provide market and technical advice. Other measures included the establishment of Inner City Task Force partnerships and semi-independent Urban Development Corporations.

A more fundamental change in government policy towards small firms came in December 1988 with the announcement that the government intended to establish a network of Training and Enterprise Councils (TECs), which have now effectively

replaced the Training Agency as the main contractor of support services (Meager, 1991). Developed in part from the model provided by the American Private Industry Councils (PICs) (Barnes, 1993) the remit of these private sector led organisations was to plan and provide training and to encourage and provide support for small businesses within the areas that they cover. In partnership with the TECs, Chambers of Commerce and other business support organisations, a growing network of 'one-stop-shop' Business Links has developed since early 1994 (DTI, 1994). Though development has been slow, new Business Links are now established in most areas of Devon and Cornwall. Aimed largely at supplying assistance to more established businesses employing between 10 and 200 people, their focus is upon developing micro strategies for product-market development (ENSR, 1994). The range of services envisaged include an extensive information and advice service, consultancy, export services, innovation, design, quality and technology services, training courses and business 'health checks'. An additional feature of the Business Links is their use of Personal Business Advisors assigned to individual firms to identify needs and assemble support packages. A more proactive approach is also foreseen, with Business Links seeking out companies which they can help (DTI, 1994).

The creation of the TECs in the late 1980s and the more recent development of Business Links has rekindled the flames of a continuing debate over the nature and direction of UK small firms policy. Although very little research is yet available relating to more recent policy developments, academic studies have focused upon two main areas relating to small business assistance. First, issues relating to the direction of the UK government's overall strategy for helping small firms have been explored. Secondly, studies have considered specific aspects of the design of small business support in terms of its content, to whom support should be given and its means of delivery. Most of these studies are prescriptive in nature rather than evaluative with relatively little large scale research into the effectiveness of business

support (Curran and Stanworth, 1989). The following review attempts to examine the literature at each level of debate. A final section examines some aspects of business support as they pertain to small firms in rural areas.

### **3.2 Justifications for Small Firm Support**

Some of the literature on small firm support in the UK concerns itself with the overall direction of broad policy developments and the extent to which any policy should in fact exist. As with many other policy issues, opinion is divided predominantly between those favouring high levels of intervention and those seeking to limit it. Johnson (1992) presents the following five point rationale for a small firms policy:

- 1) To curb the power of monopolies so that consumers can enjoy the benefits of the competitive process;
- 2) To encourage perfect information-small firms have less access to information than large firms due to the high fixed costs involved in gathering data;
- 3) To encourage the risk taking activities which might benefit society but which might not proceed without support;
- 4) To achieve a more socially optimal level, price and mix of finance for new and small businesses from the financial sector;
- 5) To retain the positive externalities which result from increased levels of small business activity (e.g. new jobs, innovations, increased social cohesion).

However, the author adds that a need exists to clarify the objectives of small firms policy which, he argues, have tended to be very broad in scope in the past and

sometimes conflicting, focusing on industrial, employment, social as well as regional policy goals.

Vyakarnum and Jacobs (1994) draw a distinction between those observers who promote a "*holistic*" approach to business support and those advocating a "*minimalist*" approach. The comprehensive and integrated nature of the holistic approach, incorporating financial, training, advice and infrastructural measures, contrasts with the 'short and sharp' assistance (such as one-off master classes, consultancies, short courses and workshops) favoured by minimalists. The authors see the development of Business Links as a move towards the holistic model, but containing some elements more akin to the minimalist approach.

Prominent amongst those who question the usefulness of an interventionist approach to supporting SMEs is Storey (1983). He argues that small firms are not economically or socially more beneficial than large firms, a point underlined by Stanworth and Stanworth (1990) who find that in general, small firms create jobs only for their owners. Furthermore, Storey suggests that small firms policies can actually be damaging since they are regionally divisive, they undermine workers pay and conditions and are falsely presented as "*the panacea for the problems of nearly a century of relative decline in the British economy*", thus diverting attention away from potentially more effective solutions. He argues for a more focused approach to support, claiming that resources might be more usefully spent on 'picking winners' and assisting them in becoming large or medium sized companies.

A further criticism of the direction of small firms policy is aired by Storey (1985) in a paper examining the problems faced by new firms and new branch plants in Cleveland. In it, the author shows that a lack of demand for products is of overriding importance. He therefore concludes that since demand for a product cannot simply be created through, for instance, the teaching of marketing techniques, then there

exists *"little justification for a further programme of assistance and advice to new and small firms."*

Smallbone (1990), whilst agreeing with Storey that there should be more targeting in order to improve the quality of new start-ups and so aid economic growth, disagrees with the author on the need for advisory and support agencies. He argues that the problem of demand deficiency can be alleviated by such agencies since they can assist firms in *"improving the market orientation of new businesses, and in dissuading those who have not clearly identified the market they are aiming to serve."*

Townroe and Mallalieu (1993) draw attention to a dilemma which is central to the issue of small business support. In providing assistance to one business and improving its capabilities, the survival prospects of that business might be improved at the expense of other firms in the market. This raises questions about the worth of providing support in the first instance. However, the authors argue that support provides wider benefits to society through the competitive process. That is, the productivity of labour and capital in the economy will be increased and in the long term, markets will be rejuvenated through innovative product and process developments.

Reviewing the overall strategy for small business support in the UK, Storey (1994) concludes that greater understanding is required of the overall implications of policy for society as a whole. He argues that on the one hand, a failure to clearly establish a relationship between either training or the provision of information and advice and improved business performance, along with uncertainty about the welfare benefits of deregulation and administrative simplification, mean that the justification for small firms policies in these areas remain open to question. However, two positive elements of public policy are identified: financial and other support to high-tech

small firms and the more general provision of financial grants, including start-up grants. Both of these elements of policy, it is argued, have had a positive effect on business performance. In relation to start-up assistance, this is reflected in findings on survival rates. For instance Gray and Stanworth (1986), monitoring changes in the employment circumstances of participants in the London Enterprise Programme, find that 70% of those participants contacted after the course were in self-employment, with a further 7% conducting business on a part-time basis. At a national level, the post EAS survival rate at 78 weeks is 75% (Employment Department, 1992, cited in Joyce and Woods, 1994). Further evidence comes from Business in the Community (1987). Through an examination of the VAT register, it was found that the failure rate for firms supported by enterprise agencies in the first three years after start-up is around 16%, compared to 33% for all new firms.

However, whilst Storey recognises that start-up grants are cost-effective in terms of job creation, two difficulties are identified. First, high failure and displacement rates exist among start-up firms. Whilst greater selectivity in the provision of help might avoid this problem, the author argues that a lack of any proven criteria for making such a selection prior to start-up means that this would be difficult. Secondly, the author argues that support should be focused upon developing firms with growth potential where public returns are likely to be higher, rather than upon simply the number of business starts. Finally, the author contends that apart from in those areas highlighted as being of benefit, the key influence that governments have upon small firms is through macro-economic policy, not through training and advice.

Clearly, considerable variation exists in the literature concerning the exact extent to which there should be policy intervention in the small firms sector. Nevertheless, the prevailing opinion remains that at least some intervention is justified. Thus a central issue becomes that of the form that support should take in terms of its content, to whom support should be given and the means of its delivery.



### **3.3 The Nature of Support - Contents, Recipients and Delivery Mechanisms**

Small business support exists in a number of forms. As highlighted in the above summary of scheme developments, these can include direct financial assistance through loans, grants and subsidies, the provision of advice through, for example, the TECs or, more recently, the Business Links and the provision of training. The EAS and subsequent start-up support programmes have combined financial incentives with training and advisory elements. In relation to the content of small firm support, Gibb and Scott (1985) provide a contrasting view to that of authors such as Storey who emphasise the role of macro-economic policy and direct financial assistance. Studying the early product and market development of 16 small firms in the UK, they emphasise the importance of developing strategic awareness as a means of exploiting opportunities. They conclude that from a policy perspective, such a strategy requires the focus to be upon 'software' instruments (such as information, counselling, training and education) rather than 'hardware' instruments (such as grants, loans and premises provision). Indeed, the proactive application of software support is viewed as an essential prerequisite for effective hardware investment.

Also addressing the question of support content, Mendham (1985) proposes that this could be made to be more appropriate by examining the needs of firms within the context of the stage of their development. Research carried out by the Durham Small Business Club (1984) in the North East of England provides evidence to support this proposition, showing as it does that training needs vary according to both the age and size of firms.

Gibb (1987) suggests that by establishing what tasks need to be carried out by firms at different stages of development, key learning and development needs can be identified and incorporated into a staggered 'process of leaning'. A firm would join a

scheme at the point most appropriate to its own stage of development. By considering the factors important to the successful establishment of a small firm (Gibb and Ritchie, 1982), four key training components are identified: motivation and competency training, business plan development, developing business knowledge and network and contact development. However, recognising that different types of OM (ranging from school leavers to previous business owners), with different types of businesses will require schemes run according to different time scales and with different course content, the author rules out a single, standard support programme. This view is shared by Segal Quince Wicksteed Ltd who state in their 1988 report:

*" It is not easy to classify firms by type and stage of development and to link to this 'typical' forms of support: each business has its own particular product or service, markets and market opportunities, competitive advantages and disadvantages and methods of management and operation. Moreover, the aspirations of key personnel vary..."*

Despite these difficulties, from a sample of firms and support providers, O'Neill (1990) attempts to determine the most appropriate content for small business training programmes. The type of modules regarded as being most urgently needed by respondents related to the following functional areas:

Finance	44.44%
Marketing	33.33%
Management	11.11%
Staff/Personnel	11.11%
Production	Nil

These findings correspond to some degree with those presented by many of the studies cited in Chapter Two relating to factors of critical importance in determining

the growth performance of SMEs. However, as with these studies, different surveys of training needs have given different results. For instance, Hess (1987) finds that among his sample of small firms, selling and marketing activities ranked first among managers in terms of time demands and importance whilst finance and accounting activities were ranked as being of least importance. Noting similar differences in results from his review of seven training needs surveys, O'Neill concludes:

*"Although training needs surveys may identify priority areas, the ideal will still be to establish the individual needs of each firm by means of a thorough organisational and human resource analysis."*

Other limitations of training needs surveys are cited by a variety of writers. For instance it has been found to be the case that small business owners perceptions of their own training needs differ from those of training providers (Gill, 1985; Kiesner, 1985; Stanworth & Curran, 1989) and also those of other advisors, such as bankers (Watkins, 1983). Furthermore, Carswell (1987) finds in his study of engineering, clothing and textile firms that owners from different industries had differing perceptions of their training needs, with greater emphasis being placed upon production skills among clothing and textile companies. Others add that inexperienced businessmen are not likely to be in a position to judge their own training needs authoritatively (Gee, 1987; O'Neill, 1990).

Smith and Delahaye (1988) meanwhile stress that training needs analysis is not as simple a process as is often envisaged since each client consists of a complex mix of buyer roles - initiator, influencer, decider and user - each of which has a variety of needs. In turn, each of these needs combines tangible and intangible aspects, as well as a 'core concept' or underlying required objective. Finally, it should be noted that attempts to identify training needs tend not to relate to the specific ultimate objective of achieving business growth.

Seeking to design a scheme to provide more effective support for new business start-ups up to 12 months old in Devon and Cornwall, Chaston (1992) utilises a strategic planning approach to identify a number of gaps in desired versus existing support schemes in the area. These were judged to include:

- 1) Insufficient assessment of personal suitability to become self employed;
- 2) Insufficient awareness of the need for a business plan;
- 3) Limited knowledge and skills in certain specific areas ( e.g. market evaluation, research and planning; accounting, bookkeeping, financial forecasting, cash-flow planning and tax);
- 4) Poor abilities to assess financial viability and determine appropriate funding policies to handle cash deficit periods;
- 5) Identifying operating problems post-launch and initiating response plans to improve future performance or minimise losses, should closure be required.

In an effort to fill the gaps identified, the author develops a detailed training scheme which places the key knowledge and development needs of OMs in the context of three phases of early small business development: *Considering Self -Employment; Developing/Validating Business Plan; Launch and First Year of Trading*. However, it is concluded that in order to increase SME survival rates further, more research relating to training needs during those phases of development in the period 12 to 36 months after start-up is required.

An area of on-going interest in the provision of small firm support concerns the psychological characteristics of OMs and in particular, their levels of motivation. As discussed previously, contributions by McClelland (1961) highlight a common 'need to achieve' (n'Ach) among entrepreneurs. Other research suggests that high levels of

growth motivation play an important role in the growth of small firms (Davidsson, 1991). A recognition of the importance of motivation among OMs has led to the content of courses being structured in a way that is designed to assess and develop motivation among support users. Gibb (1987) notes that this approach is particularly common in Asia where tests designed to stimulate motivation often precede other inputs relating to idea development and business management. However, the author argues that OM motivation need not be addressed through separate behavioural inputs into schemes. Rather, it could be developed 'naturally' as part of the business start-up and development process, eliminating the need for Achievement Motivation Training. Such an approach is developed by Chaston (1992) in his strategic planning process model for small business support.

Reviewing the effectiveness of TEC marketing efforts, Richardson et al (1992) conclude that one factor acting against the effective promotion of TEC programmes is *"a failure to convey...the way in which participation in a particular programme will be very likely to improve an important aspect of organisational and personal performance"*. They suggest that this might in part be because client needs are not sufficiently understood and that current programmes do not meet these needs. If support is to be effective in reaching those firms requiring assistance, it must be seen to be relevant. It therefore follows that any programme hoping to address the growth needs of small firms must be client led and based upon a clear understanding of what those needs are.

Another important aspect of research into the nature and design of small business support is that concerned with the style of support delivery. Curran and Stanworth (1989) provide a useful starting point with their broad classification of the various styles of small business training and education available:

- 1) Entrepreneurial Education;
- 2) Education for Small Business Ownership and Self-Employment;
- 3) Continuing Small Business Education;
- 4) Small Business Awareness Education.

The authors conclude that whilst 'Education for Small Business Ownership' type schemes are probably the most resource effective form of training, a clear need exists for more 'Continuing Small Business Education' schemes.

Similar conclusions are reached by other writers. Smallbone (1990) in his examination of firms assisted by one London enterprise agency, records high levels of failure among post start-up businesses. Associating high failure rates with the observed tendency of enterprise agencies to discontinue help for firms after start-up, he concludes:

*"unless small business support agencies provide a structured programme of aftercare for the businesses they help to start, they will make little, if any, difference to new business survival rates."*

Gibb (1987) too identifies a need for support in the post start-up period when unanticipated threats to business survival might emerge. At the time of writing, the author criticises assistance for making little provision for follow up support, removing the continuity and linkages deemed necessary for schemes to be effective.

Gill (1985), evaluating attitudes towards a business start-up and support scheme in Yorkshire stresses the need for an after course advice service providing *"a non-evaluative and non-threatening sounding board for business ideas and strategic plans."* Moreover, finding that OMs learn by solving problems rather than by anticipating or planning for them, the need for *"a facility for planned and systematic*

*proactive personal contact*" with advisors is highlighted, so that firms can receive process based help to solve problems as they arise.

Stanworth, Purdy and Kirby (1992) provide evidence to show that such a relationship can be developed. Through an action-research study spanning from 1988 to 1991, the research team involved were able to build a strong enough relationship with the businesses taking part to encourage them into business counselling and subsequently formal off-the-job management development training. The key element to such an approach is the creation of a long term advice and training based relationship between providers (these could be TECs/LECs, banks or any other support organisation) and small businesses. To be successful, the authors argue that this requires targeting based on key size and industrial/commercial sub-sector groups of firms which they term 'Growth Corridor' firms. An additional benefit of this type of support from the providers point of view is the inter-temporal information generated from the action research techniques used.

With specific reference to small business OM management training courses, Gibb (1983) outlines the following categorisation of styles used:

- 1) Short courses - weekends, evenings or 1/2 day courses;
- 2) Project based approaches - focusing on distinct problems, opportunities or areas needing improvement within a company;
- 3) Workshop, or action learning programmes;
- 4) Analytically based programmes including company audit based approaches, inter-firm comparison based approaches and general problem solving based approaches;
- 5) In-company counselling;
- 6) Guest speaker based meetings in loose or formal association.

The author states that start-up schemes represent a further separate and distinct grouping requiring different kinds of assistance relating to specific start-up needs. Here, the author advocates a participative teaching style, incorporating opportunities for developing the prospective OM's motivation, building confidence and augmenting small business competencies. Trainers should adopt a holistic view of business and one of their major roles would be to develop the OM's personal contact networks (Gibb, 1987).

In a later paper, Gibb (1990) argues that business training frequently fails to reach the small firm, partly due to the way that training institutions are organised and their historical emphasis upon teaching students and large firm employers, but also because of the traditional style of training adopted. He advocates an 'entrepreneurial' approach to training, geared towards delivery rather than content and using the trainer as facilitator rather than as an expert handing down knowledge. A more proactive role is envisaged for training participants who would focus upon problems from a multi-disciplinary perspective, learning from mistakes during flexible sessions geared towards individual needs.

Whilst delivery must be entrepreneurial in style, the author proposes a more structured approach to developing support programmes which encompasses ten stages:

- 1) Identifying and segmenting potential customers;
- 2) Identifying the needs of customers;
- 3) Understanding the existing environment and the way it already meets customers' learning needs through counselling, advice and information;
- 4) Being aware of what training programmes already exist and their strengths and weaknesses;



- 5) Identifying the gaps and therefore the objectives for new programme development;
- 6) Developing the appropriate programme;
- 7) Achieving the necessary quality standards in delivery of the programme;
- 8) Marketing the programme;
- 9) Ensuring efficiency and effectiveness through monitoring and control of the delivery process;
- 10) Evaluation of customer satisfaction.

The author concludes that the heterogeneity of the small business population requires that segmentation is essential, along with an understanding of the varying needs of businesses at different stages of development. Stressing that there must be a local capability to deliver support, Gibb argues that developing the quality of trainers is central to the effectiveness of future training strategies.

A similar conclusion is drawn by Johnson (1992) in relation to the delivery of business counselling. The author identifies two key areas of competency in need of development among counsellors: interpersonal skills/communication and analytical/problem solving abilities. He develops a three stage model for the delivery of counselling to small firms:

- 1) Exploration and Understanding (establishment of rapport, examination of plans);
- 2) Challenge and Focus (assessing the OMs commitment, skills and available resources and determining business needs);
- 3) Setting objectives, agreeing a plan of action and resource utilisation.

In a rare attempt to evaluate the effectiveness of support in addressing small business needs, Deakins and Sparrow (1991) examine the provision of support by 150 enterprise agencies to small firms in the UK. In the table below, fifteen need groupings which represent possible bases for segmenting support are ranked according to their importance, as perceived by enterprise agencies. Also ranked is the reported ability of enterprise agencies to meet each need.

**Table 3.1 Ranking Order of EA Perceived Need for and Reported Ability to Give Specific Forms of Support**

Client Group	Ranking Perceived Need	Ranking Reported Ability
Management Skills	1	5
Age	2	1
Employment Status	3	1
Resource Constraints	4	5
Employers	5	4
Industrial Sector	6	12
Turnover	7	5
I.T.	8	15
Gender	9	5
Government Support	10	1
Financial Source	11	5
Trading Status	12	5
Use of Unpaid Help	13	11
Premises	14	13
Marital Status	15	14

Adapted from Deakins and Sparrow, 1991

In many cases, a clear mismatch exists between assessments of client needs and agencies ability to provide the services required. Thus areas of inadequate provision requiring future development within support agencies are highlighted. Such inadequacies might explain in part the variations that exist in owner-manager ratings of support courses. For instance, Watkins (1983) found that while 97 of his 177 respondents felt courses were of no value and 25 that they only had limited value, 54 respondents described the benefits as 'immense'. Gills 1985 research also found

that OM comments on courses comprised of both positive and negative elements. Attempting to explain differences in responses, Watkins suggests that "*some firms had been luckier than others in matching appropriate provision to defined needs.*" However, overall, Deakins and Sparrow's research suggests that there is little commitment among Enterprise Agencies to targeting particular client need groups and this is reflected in the limited attempts at market segmentation undertaken by agencies. The authors conclude that improved co-ordination between agencies within a support network is needed since this would allow increased specialisation to occur, enabling agencies to be more effective in meeting the different needs of different client groups. However, finding that specialisation in UK Enterprise Agencies is limited relative to German support agencies, Deakins and Ram (1995) argue that whilst Business Links offer an opportunity to eliminate this problem through increased rationalisation and co-ordination, Enterprise Agencies in the UK are generally too small to employ specialist councillors to provide targeted and segmented support.

Developing a qualitative approach to the evaluation of training activities in small firms, Johnson and Gubbins (1991) find that only a small proportion of small firms view training as an integral element of the business development process. Where training occurs, it is frequently in response to external developments such as changes in the nature of market demand or new legislation or alternatively results from taking on new workers. The authors find that neither the cost of training nor the risk of trained personnel leaving the firm were major constraints upon training activity. Much more important were a lack of time, management expertise, employee attitudes and the quality and accessibility of training. It is concluded that while existing attitudes to training do need to change, time constraints and other barriers are likely to persist, necessitating greater consideration about how to deliver support. The authors propose that subsidies to facilitate the use of specialist staff or

consultants, particularly in the areas of training and personnel, are a possible solution.

Some studies have adopted an approach which attempts to evaluate the effectiveness of individual schemes and initiatives. One such evaluation is that of Segal Quince Wicksteed Ltd in their 1991 report on the DTI's Consultancy Initiatives. They found that in terms of both employment and value added gains, the effects of the scheme on firms were positive. Furthermore, it was found that having taken part in the scheme, a large proportion of the firms interviewed would be more likely to seek unsubsidised consultancy advice in the future. However, the report states that modifications are required in order to improve the effectiveness of the scheme, particularly in relation to the problem of additionality.

Marshall et al (1993) make a rare attempt to evaluate the impact of a support scheme upon the employment growth performance of recipient firms. Studying 50 SMEs receiving Business Growth Training (BGT) Option 3 support, which provides financial assistance for firms to employ management training and development consultants, the authors conclude that support had little impact on total employment though it did add slightly to managerial employment. Nevertheless, other important benefits were evident. The authors state that "*firms emerged from the scheme better organised, with increased management confidence and investment*" and suggest that such improvements were likely to have a positive effect on future performance and would enable firms to manage for growth in the long term. The report also shows that differences in the extent of organisational and business change resulting from support did occur between firms. While a number of reasons for this were proposed, the authors suggest that these differences were in part a result of variations in the quality of the relationship that developed between firms and their consultants.

Other research has focused upon the effectiveness of support schemes for technology based small firms. Caird (1992) analyses the views of the OMs of hi-tech small firms regarding current support and possible future improvements. She finds that whilst most OMs interviewed regarded the DTI's Small Firms Merit Award for Research and Technology (SMART), as a 'good' or 'excellent' scheme, many also highlighted areas where they feel improvements are required. These include:

- 1) Assistance with administration, technical development, finance, marketing and exporting;
- 2) More longer term support;
- 3) Provision of facilities such as access to technical information and equipment;
- 4) Innovation Steering Groups -to direct innovation in key areas and develop links between institutions;
- 5) Increased emphasis on support for small business-e.g. through the awarding of government contracts.

Interviewing TEC staff, small business owners and other stakeholders (bankers, accountants, Enterprise Agencies) about their views of the TECs, its services and their strengths and weaknesses, Vyakarnum and Jacobs (1994) make four key recommendations regarding how support could be made more market oriented. First, market segmentation is required (based upon, for example, industry sector, size and age) to provide a precise data-base of potential clients. Though blunt in that they fail to distinguish the economic impact of individual firms, data-bases could be developed to include performance related information and an evaluation of growth ambitions. Subsequently, a thorough diagnostic check of business needs, focusing on the health of the business plus management and employee competencies, would be carried out so as to *"establish the market requirements on an individual basis as*

*well as through linkages in the data-bases where more common needs could be identified*". The second step proposed involves the 'bundling' of services under clear functional headings and understandable brand names. Thirdly, appropriate methods of delivery (seminars, workshops, counselling, distance learning and so on) are developed and finally the quality of individual schemes is augmented through the development of centres of excellence, specialising in specific areas of support. The authors argue that the proposed structure allows the supply of support to be tuned to client demand by "*decluttering*" the issues of client definition, form of support and its quality. Further, with the development of Business Links and the need to redefine relationships between providing organisations, the structure facilitates the reduction of over-laps, the re-branding of services to improve client understanding and awareness and the establishment of closer links with small businesses.

El-Namaki (1990) outlines the following proposals for improving the provision of help for OMs at the level of the individual firm:

- 1) Play to the strong side of the entrepreneur - identify and develop strengths;
- 2) Provide feed-back and extend advice - perhaps via 'self-improvement awareness education' or consultancy;
- 3) Encourage "*cross-fertilisation*" - the exchange of views and advice amongst groups of SME OMs;
- 4) In training, stress the vision more than the mechanics - visions should provide the main channel for strategy development;
- 5) Leave room for switching and swapping - the possible non-fulfilment of intended targets should be stressed and flexibility introduced through planning for possible shifts to different activities.

The usefulness of 'cross-fertilisation', or network based action learning, as a means of small business education is also highlighted by Gill (1988). His study of two inner city projects where a variety of groups were involved in actively supporting infant businesses found that there was a general reluctance among OMs to listen to the advice of training advisors. This, the author suggests, was largely a result of class differences and scepticism about the motives and credentials of trainers. One way of overcoming this difficulty was found to be the development of networks which enabled business people to learn from each other. These networks could be widened, with the help of the training providers, in order to establish a diverse network of experts to whom OMs could turn if the need arose. Watkins (1983) also regards action oriented training as a likely future growth area, concluding that *"its educational value is greater because of the continuity and the direct relevance of the problems worked on to the individual."* Such an approach has the potential additional advantage of reducing the time and money burdens on support agencies (Cromie, 1991).

Other recent studies have concentrated on the very specific aspects of how schemes should be delivered in terms of, for example, the length and timing of training modules. Such considerations are important given that one of the single greatest constraints in delivering enterprise support is time, something which is needed if business skills are to be acquired but which OMs have precious little of to spare (Curran & Stanworth, 1987; Kiesner, 1985; Jones et al 1994). Hogarth-Scott and Jones (1993) find that among SMEs, OMs are more willing to seek advice than they are to take up training with either public or private support providers, reflecting clearly the time constraints involved. Yet Robertson (1992) notes that success rates among SMEs increase by a greater amount when support involves elements of training in addition to advice. Attempting to address the issue of owner-managers lack of time for training, Hogarth-Scott and Jones find that for small firms surveyed in West Yorkshire, the most suitable structure for the delivery of training

would consist of two weekly mid-week evening sessions of two to three hours duration. Both Kiesner (1985) and O'Neill (1990) meanwhile find the most preferred formats to be either day release courses or evening and/or weekend courses.

A further interesting finding from O'Neills research was that there was no clear support among his sample of firms for the idea of 'distance learning'. This contradicts the earlier findings of the Durham Small Business Club Report (1984) which, revealing that 60% of those surveyed expressed an interest in home based study, concluded that there exists "*an opportunity for further development of open learning materials.*"

Similar conclusions are reached by Dey and Harrison (1988). They list eight key features which they regard as being necessary to any small firm training and support programme:

- 1) They must be problem centred;
- 2) They must be modular;
- 3) Modules must integrate into a total package with linkages between modules clearly demonstrable;
- 4) Each module must contain work materials, group work and individual counselling;
- 5) There must be flexibility in provision over time and place;
- 6) Content quality must be assured;
- 7) Delivery systems must assure quality of provision;
- 8) Content must be up to date.



Drawing on evidence from case studies, the writers of the report argue that *"distance education and open learning provision come closest to matching these criteria."*

A concern raised by some observers regarding the style of training schemes relates to the apparent trend towards shorter courses and modularisation. As already stated, Dey and Harrison favour modularisation, given that other key criteria are met. Such an approach would seem sensible given the context of time constraints and a desire among OMs for courses to be short and practical (Durham Small Business Club, 1984). Yet stressing the importance of a coherent approach to running a small business, Johnson (1987) warns against the fragmentation of schemes into *"arbitrary modules."*

Similarly, Gibb (1987) argues that whilst shorter courses may produce a higher throughput of new firms, returns in terms of cost-effectiveness are likely to fall. Attention to the continuity of the training process will diminish and links with the real world will become broken as the teaching of 'subject oriented' knowledge replaces action learning. In a later study relating to enterprise education, Gibb (1993) develops a learning approach which *"derives its key components from the organisational dynamics of the small business."* By combining these components and adapting them to a classroom situation, Gibb argues that the end result will be the stimulation of enterprising behaviours, skills and attributes among students.

Component 1. The essences of enterprise in the classroom-e.g. student control, freedom and flexibility, responsibility, informality

Component 2. A project management structure for learning under conditions of uncertainty-projects act as a vehicle for learning

Component 3. Enterprising styles of teaching-e.g. learning by doing, by problem solving and by making mistakes

A similar scheme developed and tested by Sexton and Upton (1987) in the USA proved to be both educationally effective and popular with students. Furthermore, whilst both studies focus on the use of enterprising approaches in formal education, Gibb concludes that the same approach can be applied to business start-up and support training schemes, though he concedes that further research in this area is required.

An additional important aspect of support delivery relates to the promotion of programmes and advice. Studying SME awareness of TEC schemes in Sheffield, Richardson et al (1992) find that although those using TEC services were generally satisfied with the support they received, promotional aspects of the TECs campaign were less than effective. Noting that awareness is an essential prerequisite for support use, the authors call for a strategy to develop more productive networking among those dealing with small firms as a means of promoting higher levels of awareness.

Very similar conclusions are drawn by Briscoe (1995). She finds that both awareness and use of private sources of advice (such as banks and accountants) was far greater than was the case for other providers, including TECs. Also, the quality of advice services from TECs was rated below that provided by accountants, Enterprise Agencies and banks, largely due to problems in accessing advice. It is concluded that improved links between private and other support providers are needed to promote higher levels of awareness.

Townroe and Mallalieu (1993), examining the use of support in rural areas, find that just 25% of firms made use of any kind of training programme and that this generally entailed just one or two days at most. Reasons for limited take-up again included course reputation and the costs in terms of lost time. The authors also argue that a lack of desire for training is reflective of the individualistic nature of

entrepreneurs and their dislike for "*conformist institutions*". This, they contend, points to a role for support in facilitating learning through experience (by reducing the costs of failure) and developing business clubs where experiences can be shared. More formal training should focus less on single short courses and more upon developing a sequence of training experiences for individual OMs.

Also identifying low levels of awareness in relation to TECs, particularly among smaller firms, Jones et al (1994) question whether a one-stop-shop approach, which clearly requires some level of awareness among firms, can be effective in reaching such businesses. From interview based research carried out in South London, the authors argue that the reason why services available to small firms through TECs have tended to be under used is that the costs to small firms of making transactions in the business support market are high. Arguing that the removal of transaction costs in the market would raise both the number of 'transactions' and the quality of support, they make a number of proposals for reducing such costs. First, information acquisition costs could be reduced through the development of effective information services. While the limitations of one-stop-shops are acknowledged, their possible usefulness in acting as a gateway to other services is recognised. Secondly, search costs could also be reduced through more effective promotion. Finding that literature and advertising campaigns make little impact, they advocate a more proactive approach, involving the establishment of personal contact with businesses. Finally, barriers relating to risk-uncertainty and information-asymmetries would be removed through the use of Personal Business Advisors (PBAs). Initial consultancies would be free of charge, with progress to further levels of input by PBAs only occurring with the business owners agreement. If PBAs fail to achieve their objectives, OMs would be reimbursed for any charges made. At a broader organisational level, a role is envisaged for the TEC as a guarantor and "*honest broker*", overseeing transactions and providing information on recommended consultants. The authors argue that TECs are better placed than informal networks,

such as Business Clubs, to adopt this role because of the greater size of their information networks and because of their capacity to assess the quality of contractors in a more objective and reliable manner.

A number of other studies also take an organisational perspective on the delivery of small business support. Much recent debate on small business policy in the UK has predictably focused upon the TECs, the first of which were formed in 1990 following the governments 1988 White Paper, 'Employment in the 1990s' (Department of Employment, 1988). The White Paper outlines various functions which the employer led TECs are required to carry out. These include the drawing up of Local Labour Market Assessments, the management of a number of national training programmes, co-operating and working with the private sector to encourage investment in training and working as a *"local forum and agent for change, building relationships between key interest groups and investing public and private resources to enhance the economic vitality of the community and the social well-being of its citizens"* (Department of Employment, 1988).

Turning to enterprise and the small firm sector, the remit of TECs, as outlined in 1988, is to develop and provide training and other support relevant to local needs. This has included the planning and administration of national schemes such as the EAS.

In most cases, the delivery of programmes is not undertaken by TECs themselves but is sub-contracted out to local providers. Thus a TEC in many ways resembles the type of local *"central contractual agency"* proposed by Johnson (1992) as an appropriate institutional framework for providing a diverse range of assistance, through public and private sector partnership, via a 'one-stop-shop'.

Many other features of the TECs, such as an increased role for the private sector and an emphasis on local strategy, reflect the recommendations of Segal Quince Wicksteed Ltd (1988). Assessing support networks in a number of case study areas before the development of the TECs, they put forward a number of proposals for improved support provision. However, the central concern arising from the study was the lack of overall strategy for delivering support in local areas. This often meant that the needs of the total range of firms found in any given area have not been met. In order that individual providers might recognise more clearly their own role within the broad framework of support provision, the report proposed that one organisation should take the lead in assessing local needs and devising an appropriate support strategy. A more active role for the private sector is also envisaged.

Moran (1990) concludes that the TECs provide a suitable means for ensuring that these recommended policy developments take place. However, referring specifically to the development of Training Access Points, he stresses that issues such as staff training, the dissemination of data, the integration of local services, changing attitudes towards training and 'professionalisation' need to be addressed if schemes like these are to be successful. Further, in a relatively recent study of UK enterprise agencies, Deakins (1993) concludes that among his sample of agencies,

*"policies of support were largely non-targeted,...most agencies had not progressed beyond the steps of informal networks and...only a small percentage had a formal policy and strategy for support."*

Deakins argues that the development of formal networking between agencies provides the best chance of effectively co-ordinating support whilst still retaining flexibility in meeting local needs and that TECs have an important role to play in achieving this.

Despite the organisational benefits of TECs as a means of delivering support, some writers fear that a number of problems substantially weaken the TECs, making them less effective in achieving their aims. Whilst some problems relate specifically to small firm support, many are more general in nature. The most significant criticisms of the TECs are summarised below:

- The current needs and entrenched interests of local employers are likely to divert attention away from future local development needs in an employer led organisation (Meager, 1991);
- Long term economic development objectives have been set aside in order to tackle the short term problem of unemployment (Peck & Emmerich, 1993);
- Funding cuts have left the TECs less able to meet their commitments to the unemployed or their aim of developing skills among the employed. Voluntary private investment has not filled the funding gap, resulting in calls for a 'national training levy' (Peck & Emmerich, 1993);
- Some development needs are better addressed at the regional level (Bachtler, Downes & Yuill, 1993), while the consolidation of labour market analysis and policy making at the regional level would improve the quality and potential of both (Peck & Emmerich, 1993);
- Success in one local economy serves only to widen disparities between areas, regions and labour markets (Evans, 1992);
- Local TECs cannot provide the type of training strategy which is required at the national level (Evans, 1992; Meager, 1991);
- TECs lack accountability at a local level and some groups are not well represented on TEC Boards, e.g. public sector employers (Peck & Emmerich, 1993; Meager, 1991).

Writing in 1995, Vickerstaff and Parker find that the degree of SME involvement with TECs and LECs was significantly greater where TECs employed a small

business liaison officer and where there were formal connections with Industrial Training Organisations (ITOs) and group training schemes. The authors conclude that whilst the importance of small firm liaison officers reflects a general preference among owner-managers for one-to-one contact, such contact is often prohibitively expensive, especially in larger TEC areas, and may not be cost effective. However, the authors argue that the role of industry based organisations such as ITOs in the provision of support is important because they are able to provide a channel for relevant product knowledge and training. They conclude that in developing new small business services, TECs *"cannot afford to neglect the older existing networks and organisations"*.

Deakins and Ram (1995) conclude that with regard to the development of Business Links, the problem of short-term contracts between TECs and Enterprise Agencies, leading to financial uncertainty and a reduced ability to plan support strategies over the long term, is a serious one and contrasts starkly with the situation in Germany where there is relative certainty about the level of future income. Whilst they view the Business Links as a move in the right direction, they believe that the historical development of support services in the UK has led to confusion and a lack of overall co-ordination. They argue that German support efforts have been successful because Chambers act as powerful and well resourced co-ordinating bodies linking a close network of organisations including commercial and state investment banks. However, they view Business Links not as co-ordinators but merely as *"brokers for enterprise support...referring clients to different agencies"*.

The question of whether or not performance target setting is desirable as a means of evaluating the performance of TECs and Business Links, and subsequently determining levels of funding, has caused disagreement among commentators. Evans (1992) argues that target setting is a useful way to achieve some degree of control and standardisation at a national level, enabling a national strategy to be

developed. However, Peck and Emmerich (1993) argue that output related targets, coupled with reduced funding, can only serve to undermine the objective of improving the quality of TEC schemes. Gibb (1993) argues that target setting, rigidly set contracts and a pre-occupation with cost-efficiency may undermine attempts to develop potentially more effective entrepreneurial approaches to support delivery. Bennett et al (1990) add that if performance targets are to be set, then they should be appropriate in terms of local business needs, the profile of local populations and the profile of local providers, so as to be sensitive to local conditions. Finally, Deakins and Ram (1995) argue that quantitatively defined output targets directly conflict with the objectives set for Business Link to 'pick winners' by providing quality support to a small number of fast growth firms.

This issue leads to a final broad area of research in the literature on small business support, that concerned with who support should be directed towards. Of particular interest is the debate between those who favour a more proactive approach which involves 'picking winners' and those who see this task as being impossible, preferring broad support for all new businesses. This interest has developed because research suggests that most of the employment growth seen in the small firm sector has been generated through business expansion and not new business births (ENSR, 1994). Further, a relatively small number of fast growing firms account for much of this expansion. Storey (1994) estimates that over ten years, the fastest growing four firms out of every 100 will create half of the jobs within that group of businesses. Thus academics have argued that there needs to be a move away from a broad, start-up driven approach to small business support towards one which focuses upon assisting existing enterprises with growth potential. In general, TEC schemes (for example 'Business Start-Up') have in the past tended to adopt the former approach, the hope being that at least some of the firms receiving help will emerge as fast growers.



However, a shift in direction among TECs has increasingly become apparent. For instance, Curran (1993) commends innovative steps taken by some TECs towards the development of a more proactive approach towards identifying and helping growing firms. Given evidence of low levels of contact between SMEs and TECs, the author, like others (Vickerstaff and Parker, 1995), cautions against too much reliance upon the 'one-stop-shop' approach which relies upon SMEs to make the initial contact. He criticises the continued unwillingness of many TECs to utilise their freedom to amend "*pre-packaged*" schemes such as the Enterprise Allowance Scheme and Business Growth Training, despite the heterogeneity of the sector and a clear resistance to such normative training schemes amongst small firm OMs. He argues that instead of such a uniform approach, support should be directed towards specific sectors, perhaps through the development of links with industry training organisations and trade associations. Key sectors for support with promising growth prospects therefore need to be identified, with rolling programmes that shift emphasis over time if budgetary constraints prevent sufficient coverage in all important areas.

Whilst the arguments for targeting growth firms for support appear sensible from the perspective of creating more jobs, establishing a criteria for picking winners presents substantial practical difficulties (Storey, 1994; Deakins and Ram, 1995). Thus although Birley (1986) also finds that in terms of employment growth, the size of small firms is generally "*set at the start*" she concludes that:

*"effort would be most fruitful if focused upon improving the foundations of all firms rather than trying the almost impossible task of picking the few 'winners'. Further, if in doing so, each new firm created one extra job, this would have a significant impact on employment levels"*

To carry through this task, the author advocates individual, specific help for each new firm, the exact nature of which would vary according to OM needs. A key

criticism of this view is that the financial cost per job created is likely to be higher than for a more targeted approach.

Despite the difficulties involved in targeting growth firms, some authors have attempted to prescribe approaches for effectively supporting such businesses. For instance, criticising a reliance on non-targeted "*scattergun*" approaches, Stanworth, Purdy and Kirby (1992) identify prospects for targeting 'Growth Corridor' firms as part of their action-research based programme. They argue that the best hopes for increasing the number of firms achieving their growth potential rest upon increased training efforts for firms in the 20 to 49 employee size range, focusing upon assisting the transition from multi-functional co-ordination to delegating team management. This proposal reflects the view that support should be channelled towards growing enterprises because they offer greater possibilities for effectively predicting future success (Storey, 1992, cited in Vyakarnum and Jacobs, 1993).

However, other evidence suggests that overall, the impact on employment of very small micro firms is substantial (ENSR, 1994). For EU countries between 1988 and 1993, the rate of overall employment growth in micro firms outstripped that in both the small and medium size bands. Indeed, during the recessionary period of 1990 to 1993, whilst annual average employment change was -0.7% for small firms and -1.5% for medium firms, among micro businesses growth of 0.1% occurred. Citing evidence from Hughes et al (1992) suggesting that employment growth among micro firms is in fact higher than for larger SMEs, McInerny (1995) argues that within the Business Link framework, there exists "*a need to build smaller firms into the mainstream focus of SME support*".

Vyakarnum and Jacobs (1993) meanwhile describe the development of a new scheme by Essex TEC called 'Superstart' which identifies and provides targeted support for high growth potential firms during the business initiation phase. Their

research shows that in terms of both cost/benefit analysis and employment generation, Superstart is likely to be more effective than the Business Start-Up scheme. Interestingly, most high growth potential firms on the scheme are team based. The authors suggests that this is because members of a management team are likely to be more ambitious and are also able to feed upon each members knowledge, competencies and past business experience. They conclude that if support for new businesses is to move away from a product driven, income replacement approach, greater segmentation of the start-up sector is required.

Despite promising attempts to identify growth firms, predictive capabilities remain limited, particularly at the pre start-up stage (Storey, 1994). Further, it is also apparent that whilst a distinction is often made between start-up support and later support for growth, the two approaches are to a large extent complimentary (ENSR, 1994). From an 'ecological' perspective, the supply of new firms to replace failed businesses is clearly important in order to maintain a pool from which future growth firms might develop. This suggests that it would be unwise to focus on one approach to the extent of excluding the other. Nevertheless, given what is often perceived to have been a traditional over-emphasis on start-up based policy in the UK and the desire to generate greater increases in employment, continued emphasis on the development of growth firms seems likely. The on-going development of Business Link against the background of start-up budget cuts is certainly reflective of this.

### **3.4 The Rural Context**

North and Smallbone (1993) introduce a spatial aspect into the debate over the contribution made to society by small firms in terms of employment generation. As outlined in an earlier section, their comparative study of firms in different locations concludes that output growth amongst small firms is more likely to result in direct

job creation in rural areas. This reflects different approaches to the use of labour and capital, higher urban productivity gains and variable access to subcontractors in different geographical locations. Though some contrary evidence does exist (Westhead, 1995), this research implies that pursuing the goal of employment growth through policies designed to improve small firm growth would be more likely to succeed in predominantly rural areas such as Devon and Cornwall. This would appear to be particularly the case in the light of research by Dobson (1984) which shows that indigenous small businesses in Devon and Cornwall are the firms most likely to accrue economic development benefits which are retained within the two counties.

In their 1995 study, Vaessen and Keeble show that rapidly growing SMEs in peripheral areas differ from other firms in that they make greater use of external training services in addition to internal training programmes. This leads the authors to conclude that there is a need to both *"encourage external provision and utilization of training programmes, and to focus explicitly on the professional quality, rigour and targeting of the training provided"*.

Previous sections have also shown that the factors influencing growth in rural areas are, to an extent, different to those in other areas, suggesting that different approaches to support may be required. For instance, Smallbone et al (1993) conclude that *"the need to extend their markets geographically can create additional demands on rural businesses in terms of finance and management control which business support agencies need to help firms plan for"*. Surveying firms of all sizes, Keeble et al (1992) also highlight areas where a policy response is required to assist rural firms. These include support to facilitate research and development on product innovation and development, labour market policies designed to meet the needs of rural firms and help with the provision of premises. It is also noted that different motivations for starting a business in rural areas must be

taken into account by support providers and in particular, the influence of a desire for a better quality of life and an improved working and living environment. Thus existing evidence leads to the conclusion that in certain respects, the nature of support provision required in rural and peripheral areas may be different to that needed in other locations.

### **3.5 Conclusion**

Literature concerning small business support is again wide ranging. Much relates to the justifications for support and to policy development, with particular emphasis upon the nature and effectiveness of current or emerging institutional delivery frameworks (for example the TECs and Business Link). Rather less research focuses upon evaluating the effectiveness of individual schemes or initiatives. Of those that do, few appear to evaluate schemes in relation to their ability to address growth related issues. Further, whilst some studies have examined evidence concerning business survival during and after start-up support programmes, few review the support needs of firms in the immediate post start-up period or attempt to carry out a thorough evaluation of the range of support options available to such businesses. This is despite an apparent recognition that more on-going support may be needed during this period, which is identified by some (Fourcade, 1985) as that during which growth firms often start to develop.

In some areas of relevance to this study, past research provides some important insights. For instance, studies tend to suggest that in some respects, the support provision made available in rural or peripheral areas needs to be different to that offered in other areas. However, even here research is largely based upon larger or older firms. In relation to the key issue of support for young post start-up businesses, substantive recent research is again lacking. This once more means that the literature review serves more to highlight gaps in our current knowledge than to

form a basis for effectively grounding the research. Given that this was also the case in relation to the literature on small firm growth, it seems likely that emerging aims and hypotheses are to some extent likely to be rather exploratory and pragmatic in nature.

## **CHAPTER 4**

### **RESEARCH AIMS AND METHODOLOGY**

## 4.1 Research Aims

### 4.1.1 *Preliminary Research Aims*

The preceding literature review examined studies dating from 1958 to the present day relating to the two broad themes of small business growth and small business support. In the area of small business growth, issues covered related to the meaning of growth, approaches used in its measurement, the process of growth in small firms and its determinants. In reviewing the literature on small business support, writings examined were concerned with the justification for support, the historical and more recent development of policy and the extent and quality of current and emerging support in relation to its content, its delivery (including consideration of the broader institutional support delivery framework in the UK) and to whom support is provided.

Where possible, emphasis was placed upon studies relating to the growth of young post start-up firms and the support available to them. Given the proposed geographical parameters of the study, research from Devon and Cornwall and other predominantly rural areas was also reviewed separately and in some detail. However, in these key areas, existing research was found to be limited.

The dual concerns of providing quality support for Devon and Cornwall's small businesses in the period during and after start-up and of achieving greater levels of individual small firm growth, and in particular employment growth, gave rise to the central research question for this study. That is, how might business support be made to address more adequately the growth needs of post start-up small firms? In order to answer this question, it is first necessary to examine the role currently played by those delivering small business support in addressing growth requirements. Thus the two main preliminary aims of this study were first to



establish which factors are of critical importance to the growth performance of post start-up small businesses and second to assess the extent to which existing support, both during and after start-up, adequately addresses these factors. Subsequently consideration is given to alternative strategies for addressing any inadequacies found to exist. With these aims in mind, and prior to the literature review, a simple Preliminary Process Model (PPM) was developed. The design, shown diagrammatically in Figure 1.1, served as a guide for carrying out a focused literature review and also represented the building blocks upon which the final design was constructed.

#### *4.1.2 An Overview of the Literature*

The literature review which followed the development of the PPM demonstrated that whilst some aspects of both the initial research question and the subsequent research aims have been addressed by previous studies, considerable and important gaps do exist in current knowledge.

Most critically, it is clear from the literature that the two main preliminary aims of the study have not been adequately addressed by previous research as related elements within a single project. Whilst considerable effort has been made by researchers to establish which factors influence the growth of small firms, none have then proceeded to examine the extent to which any particular support scheme actually addresses these factors. This is perhaps partly because most attempts to explain small firm growth are characterised by an emphasis on a narrow set of influences which generally relate to an authors own area of interest or specialism. Thus a more holistic perspective has often been absent. One result of this is that assessments of support quality have not examined the adequacy of provision in relation to the importance of the wide range of individual factors influencing

business growth. Evaluations that have taken place have tended to focus upon general perceptions of the *overall* usefulness of support schemes, often without laying down any criteria against which judgments might be made. Where criteria are set, the literature shows that the ability of support to address the factors affecting a firms growth performance is not one of them. Rather, support has been assessed in terms of, for example, its ability to provide help for particular need groups (Deakins and Sparrow, 1991), its effectiveness in generating new jobs and initiating organisational and managerial change (Marshall et al, 1993) or the accessibility of assistance and its credibility and appropriateness in relation to unspecified problems (Briscoe, 1995).

In addition to this main justification for the central objectives set for the project, the literature shows that a number of other more specific gaps exist in past research. Some of these relate to the sample population used in previous studies. First, relatively little research has focused upon either the factors influencing business growth or the adequacy of support in Devon and Cornwall, despite the distinctive structure of their economies. Government statistics show that the employment size of businesses in Devon and Cornwall differs to that for the country as a whole. Firms employing ten or less workers represent a larger proportion of businesses in the two counties than is the case for Britain as a whole. Furthermore, such firms employ a greater proportion of total employees in Devon and Cornwall. In terms of industry structure, differences are also apparent. For business units of all sizes, manufacturing industry is less predominant in Devon and Cornwall, representing 8% of firms compared to an average of 10.4% for the whole of Great Britain. The banking, finance and insurance sectors are also much smaller in the two counties, accounting for 13.1% of firms in Cornwall and 16.2% in Devon compared to 21% for the country as a whole. Meanwhile firms within the industry grouping of distribution, hotels and restaurants represent a considerably larger proportion of firms in Devon and Cornwall (40.2% and 43.9% respectively, compared to 34.1%

for Great Britain), most likely reflecting the importance of tourism to the far south west of England (NOMIS, 1996). Both the differences in firm size and industry structure in Devon and Cornwall strongly suggest a need to examine the counties separately. In particular, the dominance of micro firms has implications with regard to examining business growth. Whilst many studies have recently focused upon growth in so-called 'mittlestrand' businesses, it is far less clear from the existing literature what is meant by growth in the context of micro organisations. Given that, across the EU, the greatest levels of business growth in recent years have been seen in the micro sector, this would appear to be a particularly important issue.

What research has been carried out in rural areas tends to suggest that rural small firms generate higher levels of employment growth than urban firms (Smallbone et al, 1993) and that indigenous small firms in Devon and Cornwall are more likely to accrue economic development benefits which are retained within the region (Dobson, 1984). Given the particularly high proportion of micro firms in Devon in Cornwall, these findings suggest that measures to encourage small firm growth might bring particular benefits to the area. Indeed, other research shows that where rapid growth has been achieved in peripheral firms, such businesses are distinguishable from others by their use of external training support and because of this, particular care is needed in ensuring that assistance is used by firms and is of a suitable quality (Vaessen and Keeble, 1995). However, given that the barriers to growth that rural small firms face have been shown to vary in some ways to those faced by urban firms (Keeble et al, 1992), it is possible that the nature of support provision would need to differ in some respects to that available in other areas.

Past research has clearly demonstrated the important contribution made by small firms to the economies of rural and peripheral areas such as Devon and Cornwall. Given that no empirical evaluations of business support focus exclusively on Devon and Cornwall and that those studying broader or other rural areas focus largely on

larger, more mature companies, there is considerable justification for research focusing specifically on young post start-up firms in the two counties. This would establish in greater detail which factors affect the growth of these businesses, the extent to which existing support is able to address such factors, ultimately leading to recommendations as to how support might be improved. It would also help characterise more clearly what is meant by growth in the context of very small firms.

A lack of understanding of the support needs of firms that have completed start-up courses and are in the period 12 to 36 months after start-up is highlighted in the case of Devon and Cornwall by Chaston (1992). This period also encompasses part of the 'demarrage' phase isolated by Fourcade (1985) as that which often marks the early development of high growth potential firms prior to "*take-off*" into sustained growth. Yet a large proportion of studies examining the factors affecting small business growth still treat SMEs as a single homogenous group. Given the apparent importance of the immediate post start-up phase in the development of small firms and the importance of understanding growth related issues and problems in the context of a firms particular stage of development, a focus upon the period 12 to 36 months after start-up would appear to be justified. Further, in the case of most studies examining factors affecting business growth, the fact that company samples are often drawn from either the small business population as a whole or from subgroups defined by age, industry or geographical location means that there is a very limited understanding of the factors influencing growth as they impact upon firms that were established under a particular form of start-up support. Such an understanding is important firstly because those firms established through start-up programmes are often different in their nature and characteristics to those set up without any form of support. Businesses receiving start-up support are often initiated by people with relatively little business experience and are frequently developed as an alternative to unemployment. This may mean that their support

requirements are different to those of other firms and so suggests a need to examine post start-up firms as a separate group. Secondly, given the increasingly growth oriented objectives of business support policy, there are likely to be continued pressures for the improvement of existing schemes and also the development of further programmes offered at later stages in a firms development or on an on-going basis after start-up. If assistance is to be delivered in the context of an on-going support process, such as that envisaged by Gibb (1987), an understanding of the needs of firms that have gone through earlier phases of the support process would seem to be particularly important.

A further deficiency in terms of the sample populations explored by past research is that where studies have examined the factors influencing small business growth, most have focused upon manufacturing firms (Birley and Westhead, 1990) thereby excluding the largest proportion of small firms from their research.

Other important issues brought to the fore in the literature relate to the methodological approaches adopted by researchers. For instance, it has been shown that many studies do not examine growth per se but instead focus upon other performance related issues such as the causes of bankruptcy. More importantly, the literature has highlighted the relevance of the owner-manager's perceptions of the factors influencing his or her company's growth. Davidsson (1990) points to the effects that such perceptions have upon the actual growth performance of a firm through determining the OM's growth motivation. This implies that by finding out more about owner-manager perceptions of the factors influencing growth and then addressing them through appropriate support measures, a positive impact can be had upon the growth performance of small firms. Other research has meanwhile concluded that low levels of usage of support services are in part due to a perception among OMs that the assistance available does not address their real needs (Richardson, 1992). This suggests that it is necessary for those providing support to

develop a better understanding of what owner-managers perceive their needs to be and whether or not they are being appropriately addressed if they are to encourage greater use of the services available. In other words, support should be client-led.

In the context of current and developing small firm support policy, a more general deficiency of existing research is that much of it pre-dates the establishment of the Training and Enterprise Councils. This means that little evidence exists regarding the quality of standardised schemes (such as the Start-Up Scheme/Award) under the TEC support framework, nor that of new small firm initiatives which support providers have, to some extent, been given the freedom to develop. Though many general criticisms have been made about the TECs (for example, Meager (1991) and Peck and Emmerich, (1993)) few evaluations have been based upon specific issues of quality and effectiveness - such as their success in addressing factors influencing small firm growth performance. It is contended here that such research is required if current developments under the Business Link framework are to take into account any lessons learnt from the experiences of small business support provision through the TECs. Furthermore, it might provide a better understanding of whether and how the policy movements towards a greater emphasis upon supporting non-micro firms associated with the establishment of Business Link will affect the growth prospects of young post start-up businesses.

The literature review has demonstrated that very little research has been carried out which has added to our understanding of the extent to which current small business support, either during or after start-up, is successful in addressing those factors most critically influencing the growth performance of young post start-up firms in Devon and Cornwall (or indeed any other part of the UK). More generally, little of the existing body of literature examines issues concerning the nature of growth in small post start-up businesses. Therefore its ability to serve as a platform for 'grounding' a study of these issues is limited. As a result, whilst the literature clearly highlights

areas where further research is required, these very gaps limit the extent to which informed hypotheses can be developed. Therefore many are likely to have a rather pragmatic flavour to them.

A final issue that requires some consideration is whether or not the pursuit of policies to encourage growth among young post start-up businesses is a worthwhile one. Evidence from a variety of sources has shown that only a small proportion of small firms actually achieve rapid growth but that targeting such firms for support purposes is very difficult, particularly at the start-up stage. This has led some authors to conclude that attempts at targeting are fruitless and so support should be available to all new businesses (Birley, 1986). However policy developments in the UK demonstrate a clear commitment to increased targeting of growth oriented businesses. This is demonstrated by movements away from start-up and immediate post start-up based support towards assistance for more established and larger SMEs. Yet evidence indicates that overall, smaller SMEs, which represent the vast majority of businesses in Devon and Cornwall, do make a substantial contribution to employment and employment growth (ENSR, 1994). Meanwhile, Davidsson's (1991) research suggests that business growth motivation and actual growth can actively be developed through addressing owner-manager perceptions of the factors influencing company growth. Thus whilst the growth ambitions of firms clearly need to be considered in developing any new support proposals, it is contended that growth oriented policies, if appropriately implemented, are worth developing for new post start-up businesses.

#### ***4.1.3 Revised Research Aims and Primary Null-Hypotheses***

In recognising that specific gaps in current knowledge exist, it is possible to redefine the aims of the study more precisely. Given that a key element of the research is its focus upon young firms that have been established through completion of a business

start-up scheme, this scheme provides the main focus for evaluating the adequacy of support in addressing factors influencing the growth performance of firms in the post start-up period. This is because it is likely to represent one of the main sources of formal support of which the chosen population of firms have had any experience. However, the role of other types of support, both formal and informal, cannot be ignored and so will also be the subject of examination. Thus the six refined research objectives are as follows:-

- 1) To gain an understanding of the nature and extent of strategic growth amongst post start-up small firms aged between 12 and 36 months in Devon and Cornwall and the attitudes of owner-managers towards it;

The work of Storey (1987) amongst others demonstrates that relatively few small businesses achieve rapid growth. However, no research exists which attempts to quantify growth amongst Devon and Cornwall's small firms. This is despite considerable differences as regards the size and industrial classification of businesses in the region. Similarly, whilst research by Smallbone (1990) and Gray and Stanworth (1986) does examine survival rates amongst post start-up businesses, few attempts have been made to quantify employment growth amongst firms of this type. Neither has there been substantial work characterising the nature of post start-up business growth nor those firms experiencing such growth. Whilst there have been thorough attempts to examine owner-manager attitudes towards growth (Hakim, 1989; Gray, 1992), few studies have attempted to quantify spatial differences beyond acknowledging that the "*rural lifestyle factor*" (Townroe and Mallilieu, 1993) is likely to have a considerable impact. Given a concern for the regional development impact of small business at governmental level and, more locally (in TECs, Business Links and local government), its contribution to job creation in Devon and Cornwall, it is intended in this research to use the level of increase in employment numbers as the key measure for business growth.



Employment data is also more readily available than that relating to other possible measures. It has also been shown by some studies to be related to sales turnover (Storey et al, 1987; North and Smallbone, 1993). To gain an indication of possible future growth, this study also resolves to ask the firms under examination about their future employment growth intentions.

- 2) To determine the level of importance attached by owner-managers of post start-up businesses aged 12 to 36 months in Devon and Cornwall to factors that have been proposed as possible influences upon business growth and to understand the reasons for these views;

As previously mentioned, considerable research efforts have been made to determine which factors influence the growth of smaller businesses. However, most studies are very narrow in focus, with many researchers exploring only the impact of factors relating to their own area of expertise. Relatively few reviews or original studies attempt to take a more holistic perspective (examples include Davidsson (1991), Gibb and Davies (1990) and Storey (1994)). More importantly, almost none give any indication as to how applicable results are in different geographical locations. Similarly, few examine growth in the context of a particular stage of development or age range or from the perspective of firms with a common support history.

- 3) To assess the extent to which existing support provided through business start-up programmes is perceived by owner-managers of post start-up firms aged 12 to 36 months in Devon and Cornwall to be adequate in addressing those factors important in influencing business growth and to understand why owner-managers have these perceptions;

Whilst a number of studies have been carried out to assess the impact of various business support schemes (Deakins and Sparrow (1991); Marshall et al (1993); Briscoe (1995)), little attempt has been made to quantify how adequately such initiatives address the factors influencing business growth. In relation to business start-up programmes, the focus of research has tended to be upon survival and failure (for example, Smallbone, (1990)), reflecting the targets set by government for such schemes.

- 4) To assess the likely contribution to addressing issues of strategic growth among post start-up businesses aged 12 to 36 months in Devon and Cornwall of other TEC and non-TEC initiatives and sources of advice through an examination of owner-managers awareness, use and perceptions of them;

A number of previous studies (Briscoe (1995); Townroe and Mallilieu (1993); Hogarth-Scott and Jones (1993)) have examined issues of awareness and use of support services provided by the TECs and other organisations. However, there is little indication from this research of the extent of awareness and use amongst firms established through start-up programmes. Therefore there is little current understanding of the degree to which such businesses are on-going users of support. If support providers are attempting to provide assistance as an on-going process, there is therefore no evidence to demonstrate the effectiveness or otherwise of such an approach. Further, with the possible exception of Marshall et al (1993), there exists no research which attempts to quantify owner-manager perceptions of such assistance in relation to its ability to aid growth.

- 5) To assess both owner-manager and support provider views as to how current support might be developed;

A large proportion of the prescriptive research concerning small business support is based primarily on large scale survey work (for example, Deakins and Sparrow (1991); Hess (1987); Carswell (1987); Smallbone (1990); Keeble et al 1992; Westhead (1995); North and Smallbone (1993)). Where qualitative approaches are adopted, the focus is rarely upon micro sized businesses (one exception is Gill (1988)) and generally fails to contrast or attune the views of both business owners and the providers of assistance.

- 6) To draw upon the research findings to propose, where necessary, changes and improvements to the existing support framework;

Whilst it was deemed appropriate to use both quantitative and qualitative research techniques to achieve the aims outlined above, a deductive hypothesis testing method was initially utilised to provide a basis for later analysis and interpretation. To this end, ten Primary Null-Hypotheses are listed below:-

- 1) There exist no significant differences in employment growth between post start-up firms aged 12 to 36 months in Devon and Cornwall;

Though evidence is often inconclusive or contradictory, past research on other groups of small firms indicates that one might expect to see variations across a range of owner-manager and company characteristics. These include gender (Rosa et al, 1995), education (Macrae, 1992; Dunkelberg and Cooper, 1982), previous work or business experience (Macrae, 1992; Siegel et al, 1993), use of planning (Robinson et al 1984; Bracker et al 1988) and rural/urban location (North and Smallbone, 1993; Keeble et al, 1992).

- 2) There exist no significant differences in employment growth ambitions between post start-up firms aged 12 to 36 months in Devon and Cornwall;

Davidsson's (1991) model suggests that variations in growth motivation relate to owner-manager perceptions of a range of factors, with need related factors being of greatest importance. However, Davidsson's research covers only a limited number of factors and firms surveyed, whilst generally very small (all employed less than 20 staff), were restricted to four industries in Sweden. Therefore results from the survey population chosen for this research might be expected to vary somewhat from those of Davidsson.

- 3) There exist no significant differences in the importance attached by owner-managers to those factors influencing small business growth between post start-up firms aged 12 to 36 months in Devon and Cornwall;

The common view amongst researchers is that there exists a high degree of heterogeneity amongst firms in relation to the factors influencing small business growth (Storey, 1994). For instance, stage models of growth point to variations between firms in different phases of development (for example, Scott and Bruce (1987) and Churchill and Lewis (1983)). It is less clear, however, whether such a high degree of heterogeneity is apparent amongst young post start-up businesses. Furthermore, other than Davidsson (1991), few researchers focus upon owner-manager perceptions of the factors of importance in influencing growth. Rather, a common approach is to examine variations in characteristics between 'growth and 'non-growth' firms (for example, Macrae (1992)).

- 4) There exist no significant differences in the extent to which start-up support is perceived by owner-managers to adequately address the factors influencing small business growth between post start-up firms aged 12 to 36 months in Devon and Cornwall;

As indicated earlier, few evaluations of support schemes have focused upon the impact of assistance on growth. An exception is that undertaken by Marshall et al (1993). Their study found that although employment benefits were limited for all firms, variations in organisational and business change resulting from BGT Option 3 support (e.g. new products and services) did exist between businesses. These variations resulted from a range of factors, including the extent of senior management commitment and the quality of the relationship between the client firm and the consultant. However, very little evidence currently exists which examines variations in owner-manager perceptions of support adequacy in relation to its impact upon growth, either for start-up assistance or any other form of support.

- 5) There exist no significant differences in owner-manager awareness of other TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall;
- 6) There exist no significant differences in the use of other TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall;

Research by Briscoe (1995) and Richardson et al (1992) shows that levels of awareness of TEC coordinated support schemes is limited, with Briscoe also finding low levels of support use compared to the use of private sources of assistance (e.g. banks and accountants). However, no attempts are made to examine variations in awareness and use. However, Vaessen and Keeble (1995) do find variations in the

use of external training services between firms in urban and rural areas. It is possible that such variations will also be evident within a single region, such as Devon and Cornwall. It will also be of interest to observe whether differences occur between such variable as owner-manager sex and previous ownership experience.

7) There exist no significant differences in the reasons for the use of other TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall;

8) There exist no significant differences in the reasons for the non-use of TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall;

Reasons for the non-use of support cited in the literature include poor promotion by the TECs (Richardson et al, 1992), a lack of time (Townroe and Mallilieu, 1993), the inability of owner-managers to access support and a lack of awareness of the support available (Briscoe, 1995). However, no studies focused specifically on post start-up businesses whose reasons for not seeking support may vary. For instance, they might include a lack of any desire to grow or contentedness with support already received through their start-up programme.

Whilst a number of researchers have focused upon the reasons for the non-use of support by firms, there appears to have been very little attempt to explore the question of support use from the perspective of the positive reasons that firms have for utilising assistance. For instance, do firms seek support in order to assist with growth, or perhaps to overcome a particular operational problem? If support agencies are aiming to be client-led (Richardson et al, 1992), it would seem to be particularly useful to understand why firms *use* the services available, in addition to why they do not.

- 9) There exist no significant differences in owner-manager perceptions of the usefulness of other TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall;

Richardson et al (1992) find that of those firms using TEC support, most do find it to be of a satisfactory standard. However, no analysis is made to establish how perceptions of usefulness vary between firms. Such analysis might aid our understanding of why some firms find support to be useful and why some do not and so could help us in developing more appropriate client-led assistance. This should help to avoid the type of situation described by Watkins (1983) who concluded in his study that variations in perceptions of support usefulness resulted because *"some firms had been luckier than others in matching appropriate provision to defined needs"*.

- 10) There exist no significant differences in the use of non-TEC coordinated sources of support between post start-up firms aged 12 to 36 months in Devon and Cornwall.

As previously described, Briscoe's (1995) research finds that there is greater use of private sources of assistance than there is of TEC support amongst small firms. However, again there is little indication as to how patterns of use vary between firms.

For each primary hypothesis, a number of more specific secondary null hypotheses were proposed. These are outlined in full in Chapters 5 and 6 which examine the results of the two phases of empirically based research carried out during the study.

Figure 4.1 provides a representation of the four main phases which comprise the research process. For each phase, the associated research aims, hypotheses and

methodological approaches are given along with the corresponding Chapter numbers.

**Figure 4.1 The Research Phases**

	Phase 1	Phase 2	Phase 3	Phase 4
Research Aims	1 and 2	3 and 4	5	6
Hypotheses	1,2 and 3	4,5,6,7,8,9 and 10		
Methodology	Mail Survey 1	Mail Survey 2	In-depth Interviews	Model Building
Chapter	5	6	7	8

## **4.2 Research Methodology**

The aims of the research project have a number of practical implications as regards the methodological approach pursued. The following section examines issues concerning research philosophy and the appropriateness of different approaches in relation to this project. After this, the ensuing section looks in more depth at the methodology adopted and data collection techniques used during the different phases of the study.

### ***4.2.1 Research Philosophy***

Two central philosophical traditions can be said to exist within the social sciences from which different views about how research should be conducted emerge (Easterby-Smith, Thorpe and Lowe, 1991). The first, an early proponent of which



was Comte (1798-1857), is positivism. This tradition views research as a value free process where the observer is independent of what is being studied - that is, the social world is external to the observer. The second tradition, phenomenology, has developed more recently, partly as a reaction against the dominant positivist paradigm. This takes the opposite view that the world is socially constructed, meaning that the observer is not independent but in fact part of what is being studied (Husserl, 1859-1938). Further, rather than being value free, research is very much influenced by human interest.

Due to the different views of reality encompassed by the two traditions, equally different ideas about what the purpose of research should be and how it should be conducted have developed. Positivists favour a focus upon that which can be observed, the establishment of laws, the use of a reductionist approach and the testing of hypotheses. As a result, research methods employed involve recording precise measurements of phenomena and the use of large samples. Such methods can be broadly classified as being quantitative in nature. Conversely, the phenomenological tradition proposes that research should focus on meanings rather than facts and upon trying to understand phenomena by taking a holistic view. Further, instead of using data to test hypotheses, phenomenologists emphasise its use as a means of developing new ideas or 'grounded' theories. Preferred research methods include the in-depth study of small samples and can be broadly labeled qualitative.

In deciding upon the most appropriate broad methodological approach for this research, consideration was given to both the strengths and weaknesses of quantitative and qualitative techniques and how they might facilitate the attainment of the specific aims of the study. The key advantage of the quantitative approach is that it allows for the measurement of responses from a large number of cases, facilitating the statistical aggregation of data and comparisons between cases

(Patton, 1987). Such methods lend themselves to the first two phases of this study because many of the research objectives centre around the testing of hypotheses and so require the opinions of many OMs to be measured in order that any differences in responses can be registered and comparisons made. Also, the larger sample size made possible through the use of quantitative techniques increases the likelihood that the responses received are representative of the population of interest as a whole.

Whilst the advantages of a quantitative approach during the earlier phases of the study are evident, certain disadvantages can be identified. In particular, many of the detailed insights into the experiences and opinions of individuals which might be revealed through qualitative techniques are lost. Instead, quantitative research requires that responses are categorised using rather less meaningful labels such as 'Yes' or 'No'. One result of this is that the validity of the data obtained is reduced (Hakim, 1987) since such labels may not accurately reflect a persons views or experiences which are likely to be far more complex in nature. Thus an important role for qualitative methods of enquirey in the context of this study would be to add depth, detail and meaning to the quantitative responses from stages one and two, so assisting the interpretation of results. As well as adding depth to findings from these two stages concerning *what* associations and differences exist between the responses of different groups of firms, the strengths of a qualitative approach, with its emphasis on meaning, are also suited to providing greater insights into *why* such differences might exist. Patton (1987) also points to the particular effectiveness of qualitative methods in evaluating the quality of programmes and in undertaking formative evaluations for the purpose of improving programmes. Thus in phase three, considerable use is made of qualitative techniques of enquirey.

Whilst philosophical objections to combining methods associated with different paradigms in the way that is proposed do exist (Easterby-Smith, Thorpe and Lowe,

1991), Patton (1987) argues that in practice, it is both possible and often desirable to set aside concerns about methodological purity and use both qualitative and quantitative approaches. Through adopting a design which utilises a mix of methodological approaches (or *methodological triangulation* (Todd, 1979)) the strength and rigour of research is increased by combining the strengths of individual techniques and in doing so correcting some of the deficiencies of using a single methodological approach.

#### ***4.2.2 Data Collection Techniques***

To meet the aims of Phases One and Two of the research, two mailed questionnaire surveys were implemented. In depth interviewing techniques were adopted during the third phase.

##### ***4.2.2.1 Questionnaire Surveys One and Two***

###### ***Design Considerations and Survey Execution***

The first two data collection phases involved the implementation of two mailed questionnaire surveys. The sometimes detailed nature of the questions asked in the questionnaires excluded the possibility of using telephone interviews, as did the high costs that would be involved. Cost considerations also made personal interviews impractical given the size and spatial distribution of the sample required during the initial phases.

Despite their practical and cost advantages, mailed questionnaires do have a number of disadvantages. Without doubt the greatest of these is the possibility of a low rate of questionnaire returns. Therefore in designing both questionnaires, consideration

was given to maximizing their 'user-friendliness' in order to make completing the forms as easy as possible. Given the substantial time constraints faced by busy OMs, this was regarded as being crucial to the success of the surveys.

Moser and Kalton (1971) make a number of suggestions for improving the design of mail surveys in order to increase the proportion of questionnaire forms completed and returned. Their first is to gain sponsorship from an organisation likely to lend credibility and weight to the research. The name of the collaborating organisation involved in this research (Devon and Cornwall TEC) was therefore added to the cover of both questionnaires, along with the University of Plymouth logo (see Appendix 1). Some possible problems were foreseen in linking the name of the TEC to the research because certain questions in the second survey related to the respondents experience of the schemes coordinated by the organisation. However it was felt that the assurances of confidentiality provided would allow respondents to answer these questions freely and honestly.

A second important design concern relates to the style and content of the covering letters (see Appendix 1). In addition to addressing why and by whom the survey is being carried out and how the addressee was chosen, Moser and Kalton suggest that the main purpose of a letter's content should be to state why it is important for the individual to reply. Given the objectives of the research, the possible contribution of the research towards designing future support for small firms was therefore emphasised. This served the additional purpose of highlighting the general subject matter of the questionnaire which, given its relevance to the chosen sample population, might be expected to generate a high level of interest and thus a larger response rate (Adams and Schvaneveldt, 1991). With regard to the style of covering letters, much disagreement appears to exist amongst writers as to the significance of any benefits attached by some to particular approaches. However, from experience of past research within the Faculty, it was decided to follow the advice of Adams

and Schvaneveldt who recommend the use of personally signed letters with official letterheads.

Other guidelines which were followed include the use of free return envelopes, an order of questions which avoided raising potentially off-putting questions too early into the questionnaire (Weisberg and Bowen, 1977; Fowler, 1993) and the use of brief explanatory sentences before certain questions or groups of questions (Oppenheim, 1992). Also, for the second questionnaire, use was made of an open-ended question asking for general comments and opinions concerning small firms and how they might be encouraged to grow. Moser and Kalton argue that such questions, as well as providing useful qualitative insights, provide an incentive to complete questionnaire forms since the respondent can be assured of an opportunity to 'speak their mind' in addition to simply answering the questions that the researcher wants them to answer.

Two other frequently cited means of increasing response rates were rather less easily applied to this research. In particular the use of follow-up requests and reminders was not practical. Since the data base of addresses used for the survey was protected under the Data Protection Act, direct access to this information was restricted. As a result, it was not possible to devise a coding system which would allow respondents (and therefore non-respondents) to be identified. The objectives of each questionnaire survey also meant that difficulties existed in attempting to restrict the length of the questionnaires. It is likely that this may have discouraged some members of the sample population from responding. Nevertheless, Oppenheim (1992) argues that the quality of questionnaire design can have more of an impact upon the level of returns than the length of the form. Therefore greater emphasis was placed upon developing a clear and attractive design. Also, throughout the design process, each questionnaire was critically pre-tested by a

selection of individuals from both academic and non-academic backgrounds (Fowler, 1993) before being piloted amongst a small sub-sample of 20 firms.

In order to fulfill the data requirements of Phases 1 and 2, information needed to be retrieved from the owner-managers of firms that a) were aged between 12 and 36 months and b) had received start-up support. In drawing a sample from a frame of firms that had already received assistance through their participation in a start-up scheme, the aim was to gain an understanding of the extent to which the important 'growth needs' highlighted in the first survey have already been addressed. This is important in the context of an on-going support process because if we are to provide businesses services in the period 12 to 36 months after start-up, we need to gain an understanding of what skills and knowledge firms have already acquired during their first twelve months of operation. By using a sample of previous start-up participants, it is possible to develop a broad understanding of the extent to which the 'best trained' of firms in the post start-up stage have had their needs satisfactorily addressed. Thus a maximum level of support facilitated development can be estimated for all firms in the 12 to 36 month period.

It could be argued that to some extent, this choice of sample frame might limit the applicability of conclusions drawn from the research to firms that have taken part in a start-up scheme. This certainly needs to be borne in mind when interpreting results. However, it might also be hypothesised that the needs of firms that have not participated in such schemes are likely, in many instances, to be greater than those that have, and so results provide an indication of the minimum support requirements of *all* firms in the post start-up stage. Although, given the variations in the previous management and business ownership experience which inevitably exist among small firm owner-managers, individual circumstances and business service requirements are likely to differ considerably, in general, an understanding of the needs of a group of firms which might be perceived as having received a 'good start' in relation to

business support services is likely to be valuable when considering the requirements of all firms in the period 12 to 36 months after start-up.

The data-bases used for both questionnaires were drawn from the records of the six main start-up support providers in Devon and Cornwall: North Devon College, ACT, Ultra Training, West Cornwall Enterprise Trust Ltd, Enterprise Plymouth and CC Training. The geographical spread of the areas covered by these organisations extends across the whole of the two counties and the number of questionnaires allocated to each was calculated roughly in accordance with the size of the population within each area.

In the case of each support provider, firms that had attended a start-up course and were aged between 12 and 36 months were randomly selected to form a representative sample of each areas start-up firms. With Devon and Cornwall TEC coordinating the mailing operation, all the sampled firms were then sent a questionnaire. For the first questionnaire, a total of 587 questionnaires were sent out between mid February and mid March. For the second, 580 were released during October 1994. It was deemed appropriate to carry out two surveys instead of one for two reasons. The first is a practical reason. Combining the questions from both survey forms would have made for a particularly long and arduous to complete questionnaire. The impact of this on response rates may have been significant. More importantly, two surveys were used in order that the answers given to questions asked in the first questionnaire could not be influenced by a knowledge of the the ultimate purpose of the survey research. This was made clear in the second questionnaire. Using this approach, the adequacy of start-up support could be rated against a separate and independent assessment by OMs of the factors affecting business growth rather than against a normative view of 'what should be taught at start-up'. Such normative views might influence responses to questions concerning

the importance of particular factors to growth if OMs were given too much prior awareness of the purpose of the research.

By having two separate questionnaires, a truer assessment of start-up support in relation to its ability to address factors important to growth could be achieved. However, some disadvantages to this approach are apparent. First, it means that there is some degree of repetition in the two questionnaires. More importantly, it means that some of the firms responding to the second questionnaire might not have responded to the first (and vice versa). This in turn might have some impact upon the validity of any comparisons between surveys. However, in reality, this impact is likely to have been relatively limited. Questionnaires for both surveys were sent to the same sample of post start-up firms (minus known failures). Subsequent analysis showed the characteristic profile of responding firms to be broadly similar. It was also apparent from the name and address details provided by around 60% of respondents that the vast majority of firms that had responded to survey one also responded to survey two. Whilst possible minor differences between the two responding groups should certainly be borne in mind when drawing comparisons between responses, it was concluded that the advantages of a two survey approach outweighed any potential disadvantages.

### *Questionnaire Contents*

#### *a) First Survey*

The broad aim of the first questionnaire, a copy of which can be found in Appendix 1, was to establish which factors are of greatest importance in influencing the growth performance of the responding small firms. The questions asked were broken into five distinct sections.



The first section (Questions 1 to 5) was concerned with establishing the *characteristics of each firm*. The factual and uncontentious subject matter involved made for a suitable set of questions with which to begin the questionnaire. The main purpose of the section was to enable subsequent analysis to examine how the importance of particular factors influencing company growth varies according to firm characteristics. The characteristics recorded related to *Company Age, Type of Industry, Company Size, Company Ownership* and *Company Location*.

As regards the industrial classification used in Question 2, the categories used were chosen in order to reflect the particular industrial make-up of the regions economy with separate categories being created for tourism and agriculture.

In Question 3, the number of people employed, along with the number of sites or outlets used, were used as measures of company size. In each case, figures for the start of the first years trading, a year after start-up and the current position were asked for in order to quantify any growth in company size. Thus variations between firms in the level of *actual* growth could be examined, in addition to differences in owner-manager *perceptions* of the importance of different factors. As a result, the first aim of this study (to gain an understanding of the extent of growth amongst post start-up firms) could be achieved. One problem associated with this was that in order to gain an accurate reflection of the extent of business growth in Devon and Cornwall, a random sample of post start-up firms needed to be used. This in turn raised the possibility that the proportion of growth firms responding to the survey could be relatively low, reflecting low levels of post start-up firm employment growth in the two counties. Thus it might be argued that the potential for drawing conclusions relating to small business growth from the results of the survey could also be limited. This problem is to some extent be addressed by the third phase of the study which examines a small sub-sample of growth businesses in depth. Further, with regard to the first questionnaire survey, it was concluded that in

relation to the key set of questions pertaining to growth (i.e. how important are the following factors in influencing the growth performance of your firm?), the perceptions of all firms would be valuable. Just as there will be important influences upon the positive growth performance of a particular firm, it is also possible for an owner-manager to identify reasons for the non-growth of his or her firm. Moreover, to exclude non-growth firms to any large extent from the sample frame might lead to a misrepresentation of the overall support needs of post start-up firms. This could lead to recommendations for support provision where in reality little or none may be needed. Therefore it was regarded as being important to take a broad, macro level view of post start-up firms before focusing in on the information rich perspectives of growth businesses.

Financial measures also provide an important measure of a firm's size. However, these were largely excluded from this study with numbers employed being the key measure used. Only a subjective measure of satisfaction with current profit levels was sought. Three main reasons exist for this. First, whilst it is certainly the case that it is possible for a company that is small in employment terms to be very large in terms of profitability and other financial measures, research does suggest that in general, employment levels do provide an accurate reflection of company size and also correlate well with some other measures of growth, in particular sales turnover (Storey et al, 1987; North and Smallbone, 1993). Secondly, the main focus of economic and political interest in small firms has been, and continues to be, their potential for creating jobs. Whilst debate continues about the quality of the jobs created by small firms, it remains the case that from an economic development perspective, their contribution to employment remains the most important measure for assessing their success. Thirdly, it was felt likely that OMs would be more willing and able to answer questions about the number of people they employ than they would about specific aspects of their financial position.

The second group of questions contained in the first questionnaire relate to the *characteristics of the owner-managers* of the firms surveyed. Here again, the primary purpose is to find out whether differences exist in the importance attached to particular factors influencing company growth, this time between OMs with different personal characteristics. The questions asked refer to the OMs *Prior Business Ownership, Prior Occupation, and Reasons for Starting in Business* along with his or her *Educational Qualifications, Sex* and *Age*. As with questions from other sections, an additional '*Other*' category was introduced to questions where it was not possible to list every possible response.

The third section of the first questionnaire is devoted to questions about business planning. Whilst much research has examined the still unclear relationship between planning and small firm performance, the extent to which the scope and depth of planning activities is associated with the way that OMs perceive the factors affecting the growth of their firms has not been fully addressed. Question 12 asks *whether* firms plan, *how formal* planning is and *how far ahead* firms plan. In establishing the degree of planning formality, the criterion used is whether or not plans are written. Question 13, which is adapted from Shrader, Mulford and Blackburn's 1989 survey, attempts to establish a measure for the *depth of planning*. This is done by asking the respondent whether or not particular procedures are used or factors considered as part of the planning process.

The fourth and most important section of the questionnaire asks the respondents about the factors influencing the growth performance of their firms. Altogether, 47 possible influences are listed. These factors were drawn from an extensive search of existing literature in the area. Whilst the list cannot claim to be comprehensive - indeed the diversity of the small firm sector undoubtedly precludes this - it is reflective of those factors cited most frequently in the literature. In order to assist in the analysis of results, and also to improve the design of the questionnaire from the

user's perspective, factors were divided into three groups: *External Factors* (Question 14), *Internal Factors* (Question 15) and *Owner Manager Factors* (Question 15). However, the fact that some factors could be classified as belonging to more than one group is recognised. Also, given that some factors either missed during the literature search or not addressed by existing studies may have been excluded, space is provided at the end of each question to list any other factor that the respondent might think important.

Since the research requires a measure of how important a particular factor is in influencing the growth of a firm, a Likert scale was used. For each factor the respondent was asked to tick one box on a one to five scale, one being 'Extremely Important' and five being 'Extremely Unimportant'. Some disadvantages do exist in relation to the use of Likert scales. For instance, different individuals' interpretations of what constitutes 'very important' as opposed to 'important' might vary. This could also be a problem when comparing perceptions of two different phenomena measured using Likert scales. It is possible that respondents might rate 'importance' in a different way to 'adequacy'. However, in the absence of more appropriate means of assessing perceptions on a large scale and in a way that can be quantified, the Likert scale is perhaps the best measurement tool available.

The final section of the questionnaire deals with the objectives and the financial performance of the surveyed firms. Once again, the aim was to establish whether or not these were associated with the OM's perception of how important different factors were in affecting his or her firms growth performance. Furthermore, given the aims of the research it was felt to be of importance to find out the extent to which growth, particularly in employment, is an important objective for young post start-up companies. The particular questions asked relate to *Profit Objectives*, *Profit Performance*, *Employment Growth Objectives* and *Non Devon and Cornwall Trade Performance*. A final question uses a Likert scale to establish how important

particular factors are as barriers to expanding into markets outside Devon and Cornwall.

*b) Second Survey*

The primary aim of the second questionnaire was to find out how well the factors highlighted in the first questionnaire as being of importance to growth are addressed by existing support and, in particular, by start-up assistance. Once again the questionnaire is divided into five sections. The first three of these, on *Company Characteristics*, *Owner Manager Characteristics* and *Company Performance and Objectives* are broadly identical to the corresponding sections in the first questionnaire. The reason for this was the need to examine whether certain types of firms were more or less satisfied with the support that they received than others. The minor changes that were made to these sections reflected lessons learnt from the first survey. In particular, some response categories which were only ticked very infrequently or not at all were removed. The section on business planning was also excluded from the second questionnaire. It was felt to be unlikely that any strong relationship would exist between the planning characteristics of a firm and its degree of satisfaction with the support it has received.

Section four of the questionnaire deals with the key issue of how satisfactory support users felt start-up support to be in addressing particular factors influencing small firm growth. The level of satisfaction with support in addressing each factor was again gauged using a Likert scale. The factors chosen, each of which represent an area where support or training could be provided, were all derived from those factors listed in questions 14, 15 and 16 of the first questionnaire. It is however clearly beyond the remit and capabilities of support providers to attempt to address some of the factors listed within these questions. Because of this, a number (mostly 'external factors') were excluded from the list used in the second questionnaire.

The last section of the second questionnaire asks respondents about their awareness, use and assessment of any sources of small firm assistance other than the start-up scheme. Given that a number of schemes exist which are more obviously directed towards helping firms to grow than Start-Up, it was felt necessary to examine whether or not these were being used, for what reasons and also how effective they are seen to be. Equally important, for firms not seeking further help, the reasons for this are pursued. The schemes and initiatives listed in the questionnaire were taken from the most recent edition of Devon and Cornwall TEC's support guide, the 'TEC Digest' (DCTEC, May 1994). Firms are also asked about their use of sources of assistance not directly linked to Devon and Cornwall TEC or the local support providers in order to gain as complete a picture as possible of the types of assistance used by Devon and Cornwall's post start-up businesses. Finally they are invited to make comments on how they believe support could be improved to encourage small firms to grow and take on more workers. As well as providing qualitative insights to add greater meaning to the findings of the survey, the question also served to provide a degree of 'pre-understanding' (Gummesson, 1991) in relation to the issues to be explored through in-depth interviews during phase three of the research.

#### **4.2.2.2 *In-Depth Interviews***

The overall aim of this final data collection phase was to add greater depth, detail and meaning to the statistical information gleaned from the two questionnaires through the use of in-depth interviews. Following the broad perspective taken by the two questionnaire surveys, in this phase, the emphasis was upon post start-up businesses that had experienced employment growth.

More particularly, the objectives of the interviews were to gain a better understanding of *why* certain factors were perceived as being of critical importance to the growth of individual companies, *why* individual owner-managers held certain

views about the adequacy of the support they have received and how these views in turn related to the needs of their particular business. Also of interest was whether any failings were due to the content and relevance of the support provided or the style in which it was delivered. Through the use of case interviews it was hoped that light might be shed upon the nature of individual outcomes for different participants of the start-up scheme and help to explain them. A further aim was to find out how OMs felt that support could be improved to better assist their growth and why they believed such changes would be effective.

A final reason for examining the chosen sample of firms in-depth was to enable the development of an accurate description of what a growth firm is in the context of this study. Given that the firms being studied are relatively young, it is unlikely that they will match the profile of the type of firms usually described in the literature as 'growth businesses'. Indeed, most are likely to be micro firms. Therefore, through an examination of their various characteristics, it is important to clarify the nature of the growth post start-up business in the context of this study.

During the third phase of data collection, interviews were also carried out with the providers of start-up support. It was felt that in doing this, further triangulation benefits would be gleaned through gaining the perspective of a different sample population on broadly the same issues of concern. The different perspectives of OMs and support providers on issues such as the factors affecting post start-up business growth, the adequacy of support in addressing such factors and how support might be improved could then be compared and differences and similarities in responses highlighted.

### *Sampling Procedure*

In choosing a sample of case firms to study in-depth, the approach taken differed substantially to that adopted during phases one and two. As Miles and Huberman (1994) emphasise, a key feature of qualitative sampling is that it is 'purposive' rather than random - that is, the purpose of the research drives the sampling process, with the focus being upon selecting information rich cases from which a great deal is likely to be learned about the particular subject of interest. The central concern of this research is to examine how support for small firms might be improved to encourage more successful growth among young post start-up businesses. Thus firms of particular interest to the study are those that have actually demonstrated some success in achieving employment growth. It is from such firms that much can be learnt about what influences growth, how adequately current support helps 'growth firms' and what might be done to improve assistance for these types of enterprises. These are the firms that have actually gone through the process of growing and experienced the associated problems first hand. Therefore the insights that they have to offer with regard to possible support improvements are likely to be extremely valuable.

In choosing firms for interview, a criterion sampling approach (Patton, 1987) was adopted, selecting only firms that had experienced increases in employment since start-up. At the same time, care was also taken to ensure that, as far as possible, firms were drawn from a variety of geographical locations, industrial sectors and age groups. The advantage of applying maximum variation sampling in this way is that any common themes that exist among the heterogeneous firms that meet the 'growth criterion' can be identified. As Patton (1987) states, "*any common patterns that emerge from great variation are of particular interest and value in capturing the core experiences and central, shared aspects or impacts of a program*".



In total, fourteen case firms were selected for investigation from those respondents to the two questionnaires that a) met the criteria for selection and b) supplied their name and address. A short list of reserve firms was also compiled. The owner-manager of each firm was sent a letter thanking them for their help with the research so far and asking them if they would be willing to help further by agreeing to be interviewed (see Appendix 1). As with the questionnaire surveys, a promise of anonymity was given. Recognising the busy schedules of owner-managers, flexibility in the time and date of any interview was also assured. Furthermore, also enclosed with the letter was a brief, visually attractive *'Executive Summary'* which drew together some of the main findings of phases one and two and also raised some of the issues to be covered in the interviews (see Appendix 1). It was hoped that the inclusion of this summary would add weight to the importance of the study and make potential interviewees more amenable to becoming involved further in the research. This strategy proved very successful, with all of those firms who were subsequently contacted by telephone and found still to be in business agreeing to be interviewed.

A similar approach was adopted in making contact with support providers and representatives from five of these were subsequently interviewed.

### *Interview Design and Technique*

Robson (1993) describes three approaches to conducting research interviews based upon differing degrees of formality and structure. At one extreme is the *'fully structured interview'*, featuring standardised questions and response options. Such an approach, frequently used in market research, shares many of the qualities of quantitative postal surveys and so leaves little room for qualitative insight. At the other extreme is the *'unstructured (completely informal) interview'*. Easterby-Smith, Thorpe and Lowe (1991) warn that such a 'non-directive' approach can lead to poor

and subsequently difficult to interpret data since a clear vision of what questions respondents are answering can be easily lost. Equally, respondents themselves are prone to being left with no clear idea of what issues they should be addressing in their answers.

Because of the weaknesses inherent in both the structured and unstructured approaches, a number of authors favour what Robson (1993) calls the '*semi-structured interview*'. Here, an interview question guide is used to ensure that the subject areas of importance are covered in each interview carried out. McCracken (1988) identifies three further functions of this type of approach. First, it enables prompts to be carefully crafted and precisely situated in the interview. Secondly, it establishes channels for the direction and scope of discourse. Finally, the plan allows the questioner to give all of his or her attention to the informants responses.

Whilst the interview guide approach introduces an element of structure to the questioning, it does not preclude variations in the exact wording or order of questions. Nor does it stop the further exploration of relevant issues arising from the respondents testimony which, whilst guided, remains open-ended and unstructured in nature. In sum, the semi-structured approach "*keeps the interaction focused, but allows individual perspectives and experiences to emerge*" (Patton, 1987). Thus qualitative insights are gained within a framework which ensures that these insights are meaningful and relevant to the issues under analysis.

For the reasons given above, an interview guide was developed for use with the chosen sample of firms (see Appendix 1). The guide, by its very nature, is not an accurate record of either the exact wording nor the order of questions asked during a particular interview. Indeed in many instances, where issues were addressed elsewhere in the respondents testimony, or were felt not to be of relevance to a particular firm, some questions were not asked. However, by making certain that all

of the broad issues of importance were covered, the guide ensured that most of the information generated was of direct relevance to the aims of this stage of the study.

In conducting the interviews with owner-managers, care was taken to follow the recommendations regarding style and technique put forward in the literature. Many of these recommendations relate to the wording and phrasing of questions. Patton (1987) emphasises the importance of using a form of questioning which facilitates 'open' responses, rather than driving a respondent towards one of a closed set of possible replies. For example, by asking how important something is, the respondent is effectively being forced to select one of a finite number of replies ranging from 'very important' to 'very unimportant'. Other guide-lines laid down in the literature include the avoidance of jargon as well as of questions which are loaded, leading, double-barreled or double-negative (Glesne and Peshkin, 1992; Patton, 1987; Robson, 1993; Oppenheim, 1992; Marshall and Rossman, 1989).

A second general area where interviewing skills need to be developed relates to the process of personal interaction between interviewer and interviewee. One important issue is the use of probes to sharpen up or expand upon a particular response. Easterby-Smith, Thorpe and Lowe (1991) identify a number of types of probes each of which utilises a different technique to achieve a specific purpose. For instance, the *silent probe* (i.e. an expectant pause) can be used to encourage a respondent to follow the line of their argument further whilst the *mirroring* of a respondents reply in the interviewers own words gives him or her the opportunity to rethink their answer and construct another, perhaps more enlightening response. Of particular relevance to this research is the use of *exploratory probes*. Using *what*, *why* and *how* questions, the reasons for particular view points held by interviewees can be uncovered.

Other important interpersonal skills cited as being necessary in conducting effective depth interviews include learning to give 'praise' to respondents by showing interest in their replies, developing a rapport with the interviewee whilst at the same time maintaining neutrality and being considerate to the respondents feelings, particularly where sensitive issues (for example relating to a firms financial position) are being addressed. Oppenheim (1992) argues that such skills are essential if the person being interviewed is to continue to feel happy about co-operating to their fullest ability throughout the course of the interview.

Making use of the guidelines outlined in the literature, fourteen interviews were conducted during April and May, 1995. Thirteen of the interviews were tape recorded and all but one were carried out at the interviewees place of work, facilitating supplementary observational insights. On average, each interview lasted around one hour, though some were shorter owing to time constraints faced by the owner-managers concerned. Where information was subsequently found to be incomplete or if views required further clarification, follow-up telephone calls were made.

The five support provider interviews were carried out during May and June 1995. In each case, interviews were taped at the providers place of work. These interviews were generally longer than those with OMs, lasting up to two or three hours. Four interviews were with the Chief Executive of the provider company, the remainder being with the Chief Executive's immediate deputy. In three cases, input was also provided by other business support staff present during the interview.

The completion of the two rounds of in-depth interviews resulted in the data collection requirements of the study being fulfilled. The next chapter describes the analysis techniques employed to explore the data gathered together over the course of the first three phases of the study and examines in depth the results that emerged.

## **CHAPTER 5**

### **QUESTIONNAIRE SURVEY 1 RESULTS**

## **5.1 Introduction**

In this Chapter, the results of the first phase of data collection, Questionnaire Survey 1, are presented and analysed. Following a preliminary examination of descriptive statistics, subsequent steps in the analysis make use of Pearson's chi-squared, cluster analysis and discriminant analysis to test Primary Null-Hypotheses 1, 2 and 3 as outlined in Chapter 4. To add focus to the analysis, a number of Secondary Null-Hypotheses are also proposed and tested.

From the 587 questionnaire forms sent out to firms aged between 12 and 36 months randomly selected from the client lists of the six start-up support providers in Devon and Cornwall, a total of 181 were completed and returned giving an overall response rate of 31%. A small number of these were discarded as they were insufficiently completed. As a result, 178 small firms that had benefited from business start-up support in Devon and Cornwall were left in the sample used for statistical analysis. First and second wave responses were compared as a means of testing for non-response error. No significant differences were found and thus it was concluded that the population inference was valid.

## **5.2 Descriptive Statistics and Sample Company Profile**

The following sections describe the sample population through a basic analysis of frequencies relating to company characteristics, owner-manager characteristics, the nature of business planning activities, the objectives of firms and aspects of their performance. Frequency tables are contained in Appendix 2.

### *5.2.1 Company Characteristics*

The survey results show that the single largest group of responding firms (46.1%) were between 19 and 24 months old, with only 11.8% having been established for longer. As regards the industrial sector in which companies operated, there was a strong bias towards services among the post start-up firms surveyed. Only 10.7% were in manufacturing industry with a further 11.8% in agriculture, transport and construction. This is broadly reflective of the industrial structure of Devon and Cornwall's economy as a whole.

The vast majority of firms were owned by single owner-managers (87.1%) with the remainder being either partnerships (10.1%) or limited companies (2.8%). Where partnerships existed, most comprised members of the same family (82.4%). Thus almost all firms were owned by a single individual or were family businesses.

74.7% of the firms in the survey were based in Devon and 60% were located in rural areas (villages or small towns) rather than urban areas. Differences between the two counties mirror their different populations whilst the latter result reflects the predominantly rural nature of the two counties and their diffuse population distribution.

As expected, in terms of numbers employed, all firms were very small. At the time of the survey, just 1.8% employed more than three people with most employing just one person (53%) or none at all (28.7%). Between start-up and the time of the survey, 16.2% had grown in employment terms, 2.4% saw a fall in numbers employed while the vast majority remained the same size. The number of sites or outlets operated from by firms also reflected their small size with 89.2% either working from a single site or running a mobile service. Thus overall, a picture

emerges of a fairly static post start-up firm population, but with a significant minority moving towards some degree of employment growth.

### ***5.2.2 Owner-Manager Characteristics***

70.2% of the OMs in the survey were male. OMs were also largely middle aged. The largest group were aged 25-34 (30.9%) with the groups aged 35-44 and 45-54 each representing 24.7% of respondents. For the majority of OMs (77%), their current business was the first they had owned. This is also shown by the previous occupations of those surveyed, with just 9% indicating that they were self employed prior to start-up. The largest single group chose 'Unemployed' as their previous occupation (30.9%). Although all participants in the programme had to have been unemployed for six weeks to qualify for assistance, this figure reflects the extent to which start-up support is in particular seen as a valid option by the longer term unemployed. Nevertheless, around half of the OMs surveyed were employed by others, either in an industry different to that in which their own firm operates (25.8%) or the same (23.6%).

A lack of any alternative employment is cited as the main reason for starting up a business (36.5%), reflecting the role of start-up support as a vehicle for reducing unemployment through self employment and the large proportion of OMs who classified their previous employment as 'Unemployed'. A desire for independence also featured highly (33.7%) lending some validity to those studies which construct a psychological profile of entrepreneurs as non-conformists with a strongly independent nature. Only 11.8% of firms were started as a result of the identification of a promising market opportunity. For a large proportion of firms setting up therefore, the owner-managers motivations did not stem from a calculated assessment of potential business opportunities. Indeed in many cases, motivations were entirely negative.



The level of educational attainment reached by the OMs surveyed was reasonably high. Only 7.3% had no qualifications at all whilst 72.5% possessed O' Levels/GCSEs and 30.3% had A' Levels. Levels of vocationally oriented education were also high as indicated by the fact that 38.8% of OMs had gained some form of professional qualification.

### ***5.2.3 Business Planning, Objectives and Performance***

66.5% of the firms surveyed undertook some form of business planning. Of these, 55.6% planned informally, not using written plans. Further, planning tended to take place over the medium term with most companies planning over one month ahead (94.3%) but few planning over one year ahead (18.8%). From questions similar to those developed by Shrader, Mulford and Blackburn (1989) from a study by Lindsay and Rue (1980), it was possible to create a measure for the depth of planning. Since the classification proposed by the authors proved inadequate in accounting for all the responses from this sample, an adapted version was devised. This showed that in addition to the 33.5% of firms that undertook no planning, 47% were 'moderate' planners using some of the planning techniques and approaches available whilst 18.5% were 'deep' planners undertaking fairly comprehensive strategic management. These findings to a large degree support the findings of previous studies (for example, Birley, 1986; Gibb and Scott, 1985) by showing that planning in small firms tends to be relatively short term in nature and also informal. Nevertheless, of those owner-managers who did plan, a large minority used written plans. This is most likely a consequence of the emphasis placed upon developing a formal business plan by start-up programmes. However, whilst it may be the case that formal planning amongst post start-up businesses is more common than it is among other small firms, the fact that a third of the firms surveyed do not plan at all

suggests that many owner-managers do not regard planning as something that is necessary, either formally or informally, on an on-going basis.

Most of the firms surveyed carried out no trade outside of Devon and Cornwall. However, it would appear that as firms grew older, they are more likely to trade externally. This is demonstrated by the fall in the proportion of firms carrying out no external trade between start-up (65.7%) and the time of the survey (49.7%). The fall in the size of this category is matched by a sharp increase in the proportion of firms for whom 1-20% of trade is external (16.3% at start-up compared to 25.4% at the time of the survey). 16.6% of the firms carried out 60% or more of their trade with customers outside of Devon and Cornwall. The most highly ranked reasons given for not carrying out more external trade were the cost of expansion, competition in other areas and transportation costs.

Turning to company financial objectives, the smallest proportion of respondents aimed to achieve large profits (11.3%). Most were happy to achieve medium (46.3%) or small (28.2%) profits whilst 14.1% were content to just 'get by' financially. Most firms were either 'satisfied' or 'very satisfied' with their current profit performance (66.7%) with only 4% 'very unsatisfied'. Thus a picture emerges of modest financial objectives and broad satisfaction with levels of financial gain achieved. The majority of post start-up businesses might therefore be labeled *satisficers* with regard to their financial objectives. In terms of employment growth over the next 5 years, very few firms wanted to grow by over 100%. Yet most wanted at least some expansion with 72.4% favouring between 1 and 100% growth. Therefore again objectives are generally modest, with only a small proportion of firms apparently seeking very rapid growth. However, only 15.2% had no growth ambitions at all.

### 5.2.4 Factors Influencing the Growth Performance of Firms

In Table 5.1, each factor listed in the questionnaire is ranked according to its mean importance rating for the whole group of firms surveyed. Associated frequency tables are shown in Appendix 2.

**Table 5.1 Factors Influencing Growth Performance - Rank Order**

Rank	Factor	Mean Rating	Standard Deviation
1	ABILITY TO COMMUNICATE WITH CUSTOMERS	1.23	.52
2	OM PERSISTENCE	1.40	.57
3	LEVEL OF DEMAND	1.42	.69
4	OM DRIVE	1.43	.61
5	OM VALUES	1.45	.59
6	OM ABILITY TO COPE WITH PRESSURE	1.51	.63
7	LEVEL OF CASH FLOW	1.56	.71
8	OM TRAINING	1.62	.77
9	OM EXPERIENCE	1.62	.86
10	MARKET KNOWLEDGE	1.68	.63
11	OM FAMILY SUPPORT	1.80	.98
12	MARKETING ABILITY	1.89	.78
13	STATE OF REGIONAL ECONOMY	1.93	.90
14	STATE OF NATIONAL ECONOMY	1.94	.81
15	ABILITY TO KEEP FINANCIAL RECORDS	1.99	.83
16	ABILITY TO MANAGE FINANCE	2.01	.87
17	QUALITY OF COMPETING PRODUCTS	2.10	.97
18	PRICE OF COMPETING PRODUCTS	2.12	.95
19	LEVEL OF VARIABLE COSTS	2.13	1.04
20	SPEED OF DEBT PAYMENT	2.16	1.28
21	SECTOR SPECIFIC PROBLEMS	2.17	1.05
22	ABILITY TO PLAN FOR THE LONG TERM	2.23	.93
23	ABILITY TO ENTER NEW MARKETS	2.29	1.09
24	ABILITY TO CARRY OUT MARKET RESEARCH	2.30	.91
25	PRODUCTIVE CAPACITY OF FIRM	2.31	1.17
26	LEVEL OF FIXED COSTS	2.34	1.13
27	ABILITY TO GENERATE FUNDS INTERNALLY	2.35	1.07
28	ABILITY TO DEVELOP NEW PRODUCTS	2.42	1.14
29	LEVEL OF STAFF SKILLS	2.47	1.45
30	ACCESS TO KNOW-HOW	2.60	1.02
31	ACCESS TO NEW TECHNOLOGY	2.62	1.15
32	PURCHASING ABILITY	2.66	1.33
33	CORPORATE CULTURE	2.73	1.30
34	ACCESS TO ADVISORS	2.73	1.07
35	ACCESS TO NETWORKS	2.80	1.15
36	AVAILABILITY OF MATERIALS	2.83	1.46
37	LEVEL OF INTEREST	2.94	1.42
38	ABILITY TO MANAGE STOCK	2.97	1.26
39	LOCATION OF FIRM	2.98	1.25
40	BORROWING ABILITY	3.03	1.23
41	ABILITY TO DEVELOP NEW METHODS OF PRODUCTION	3.08	1.26
42	ABILITY TO MANAGE STAFF	3.08	1.26
43	AVAILABILITY OF FINANCE FROM LENDERS	3.09	1.35
44	AVAILABILITY OF SUITABLE PREMISES	3.11	1.35
45	LEVEL OF BUSINESS RATES	3.12	1.38
46	PLANNING RESTRICTIONS	3.57	1.21
47	AVAILABILITY OF SUITABLE LABOUR	3.69	1.13

The table shows that overall, the 'Ability to Communicate with Customers' was seen as the single most important factor influencing growth, with 98% regarding it as either 'important' or 'very important'. Though the importance of marketing related competencies is widely recognised in the literature, relatively little attention has been paid to the communicative abilities of owner-managers. This finding therefore provides strong evidence to support research by Atkin and Perrins (1995) which argues that there is a link between the entrepreneurs ability to communicate and the growth of his or her firm.

Ranked second by respondents was OM Persistence. The importance attached to this factor and also to the OM's Desire to Succeed (ranked 4th) reflects the importance of motivation and a drive to achieve growth to the actual attainment of growth. A number of other OM related factors - OM Values, OM Ability to Cope with Pressure, OM Training and OM Experience - also appear in the top ten ranking. This suggests that in very small young firms, it is the owner-manager, his traits and his background which are among the most important factors influencing a firms growth performance. This in turn reflects the extent to which, amongst such businesses, the owner-manager *is* the company. The fact that relatively less importance is attached to access to external sources of assistance such as advisors (34th) and networks (35th) underlines the impression that most owner-managers perceive that it is their own efforts and experiences which most critically affect their firm's growth performance.

The Level of Demand is ranked as the third most important factor influencing growth. 93.8% of respondents felt that it was either 'Important' or 'Extremely Important'. Although the state of both the regional (13th) and the national economy (14th) are also ranked relatively highly, other external factors (for example the Level of Interest Rates and Business Rates) appear much lower down the ranking.

Ranked seventh among the factors influencing growth performance is the Adequacy of Cash Flow. 92.1% of respondents regarded this as either 'Important' or 'Very Important'. This is borne out further by the importance attached to the speed of debt payment. Though further down in the rank order (20th out of 47), 73% of OMs felt that this factor was of importance. Although the importance of keeping accurate financial records and developing the skills to do this are recognised (15th and 16th), other financial factors are ranked much lower in terms of their influence on growth. In particular, 'Borrowing Ability', 'Availability of Finance' and the 'Level of Interest' are ranked amongst the least important factors, suggesting that post start-up small firms attach more importance to internal financial management skills than to the availability of finance from external sources.

A further group of factors given a high ranking all relate to marketing. Ranked twelfth, 'Marketing Ability' was judged to be 'Very Important' by 31.5% of respondents and 'Important' by 52.2%. 'Market Research Ability' was ranked 24th, though both this and 'Marketing Ability' were rated as less important than 'Market Knowledge' (ranked 10th). This underlines the importance of and reliance upon strategic awareness in market development among small post start-up businesses. However, some importance is also attached to the OM's 'Ability to Plan for the Long Term' (22nd), a further reflection of the fact that some two thirds of respondents undertook some form of business planning. Therefore the degree to which market knowledge and strategic awareness are substitutes for planning or, alternatively, represent integral parts of it is less clear. 'Market Diversification' was also rated as being 'Important' or 'Very Important' by most OMs (64.6%), indicating some awareness of the role played by product/market development in business growth.

It is also worth noting that responding firms attached a certain amount of importance to sector specific problems (ranked 21st). The fact that some of the issues faced by post start-up businesses are very individual in nature is clearly

significant given the generally relatively broad non-specialised approach taken to the delivery of start-up support in the UK.

Some of the factors ranked as least important include 'Planning Restrictions', 'The Availability of Premises', 'The Availability of Labour' and 'Personnel Management'. This is interesting given that other studies (Keeble et al, 1992; Townroe and Malleliou, 1993) find the availability of suitable premises and labour to be more significant as barriers to growth in rural areas. Overall, it is apparent that lower levels of importance were attached to factors associated with employing workers. This is clearly indicative of the low levels of employment among the majority of small businesses surveyed.

Whilst Table 5.1 provides a useful starting point for examining the relative importance of the different factors influencing small firm growth, in many cases differences in mean importance ratings between factors are small. Further, whilst the ranking provides an overview of factors as they affect the sample as a whole, it masks considerable variations between firms. Such variations are made apparent by the high standard deviations associated with certain factors (see Table 5.1).

### **5.3 Variations in Employment Growth**

Company growth was examined by classifying firms as 'growing', 'static' or 'shrinking' according to how the number of people they employed changed from the start of their first years trading to the time of the survey. 16.2% grew in employment terms, 2.4% contracted and 81.4% remained the same size. Using the non-parametric Pearson's Chi Squared test, the Primary null-hypothesis that there exist no significant differences in employment growth between firms was tested. This was achieved by proposing a number of more precise Secondary Null-Hypotheses. In order to facilitate a more concise statement of these (and all subsequent

Secondary Null-Hypotheses), individual variables were grouped into Company Characteristics (company age, industrial sector, company ownership, nature of partnerships, number of partners, county location, urban/rural location, start-up employees, current employees, start-up sites/outlets and current sites/outlets), Owner-Manager Characteristics (sex, age, prior business ownership, previous occupation, start-up reasons and educational qualifications), Planning Characteristics (use of planning, formality of planning, planning timescale and depth of planning), Business Objectives (profit objectives and employment growth ambitions) and Performance Characteristics (employment growth, profit performance and non-Devon and Cornwall trade). In order that a successful analysis could proceed, and where such action was appropriate, some infrequently chosen response categories to questions concerning the characteristics of responding firms were combined. This was necessary so that the chances of generating non-valid results (i.e. those where more than 20% of cells in a cross tabulation show an expected frequency below 5) could be minimised. Questions 1, 2, 3a-f, 4a, 7, 12c, 13 and 19 were therefore recoded, giving slightly different response categories to those in the original questionnaire. Data from two other questions (Questions 4b and 4c) was excluded from the Chi-Squared analysis because of either low absolute levels of response or extremely limited variation in the responses chosen by OMs.

The five Secondary Null-Hypotheses tested were as follows:

*There exist no significant differences in employment growth between target firms*

- with*
- i) different company characteristics;
  - ii) different owner-manager characteristics;
  - iii) different planning characteristics;
  - iv) different business objectives;
- and*
- v) different performance characteristics.

No significant differences in the employment growth of firms were initially found to exist, so each Secondary Null-Hypothesis was at first accepted. However, when the small number of firms that decreased in employment size were combined with those that showed no change, some significant variations did come to light meaning that in three instances, the associated null-hypothesis could be rejected. Table 5.2 summarises the significant differences observed.

**Table 5.2 Chi-Squared: Variations in Employment Growth**

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Prior Business Ownership	4.56417	0.03265
Growth Ambitions	9.68697	0.00788
Use of Business Planning	3.96507	0.04645

The table indicates that prior business ownership has an influence upon employment growth, with 27.8% of firms owned by managers with previous experience expanding numbers compared to 13% for those with none (see Appendix 2). This clearly shows the benefits of experience and also perhaps a tendency for those who have run firms before to be less cautious than a first time owner might be in terms of taking on workers in the first two to three years of operation. An association between the use of business planning and employment growth is also apparent. Whilst 19.6% of firms that undertook business planning grew in employment size, just 7.5% of non-planning firms took on new workers. However, no differences existed between businesses in terms of the depth or the formality of planning. This implies that in the case of small post start-up businesses, the existence of any planning activity, no matter how formal or how in depth, can be enough to make a difference in terms of company growth. An element of caution might also be required in interpreting this result however. Given their "*need for applause*" (Kets de Vries, 1985) owner-managers whose firms have achieved growth might be more



inclined to take the credit for this by claiming to have planned for it than to admit that growth occurred through luck or by chance. Further, it is clearly the case that rather than being a cause of employment growth, the use of business planning may in fact simply be a result of such growth.

Finally, an examination of the relevant cross-tabulation shows that a higher proportion of firms with high employment growth ambitions had achieved employment growth. 28.6% of high ambition firms (those wanting over 50% growth over the next five years) had increased numbers compared to 7.7% of firms with no ambition to grow. This result in itself does not reveal whether high ambitions result in growth or whether the achievement of growth boosts future growth ambitions. Perhaps most likely is that a 'virtuous circle' exists in relation to these two variables.

Overall, these results provide some limited basis for predicting growth among post start-up firms in the period 12 to 36 months after start-up. However, the associations, whilst significant, are not especially strong, particularly in the case of prior ownership and the use of business planning. Indeed, the fact that significant differences in the use of business planning exist between firms with varying growth ambitions suggests that this variable is a symptom of another cause (i.e. growth ambitions) and not a particularly important cause itself. This is borne out by the discriminant analysis results below. A stepwise selection procedure (based on the minimisation of Wilkes Lambda (Norusis, 1985)) was used to identify, from variables associated with significant differences, those which most improve classification success rates. The results show that using the stepwise selection procedure, only 'Growth Ambitions' and 'Prior Ownership' were included in the analysis.

**Table 5.3 Discriminant Analysis: Employment Growth**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Growth Ambitions Prior Ownership	Canonical Correlation	0.3252
	Wilkes lambda	0.8942
	Eigenvalue	0.1183
	Chi-square	11.181
	Significance Level	0.0037

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Group	
		Growth	No Growth
Growth	13	76.9%	23.1%
No Growth	90	34.4%	65.6%
Ungrouped	5	60%	40%
% Correctly Classified			66.99%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Group	
		Growth	No Growth
Growth	14	78.6%	21.4%
No Growth	50	46.0%	54.0%
Ungrouped	6	83.3%	16.7%
% Correctly Classified			59.38%

The first section of the classification table above shows classification results for a randomly selected 60% of cases from which the discriminant function was derived. The second section presents classification results for when this function is applied to the remaining 40% of firms. Whilst the discriminant function was successful in classifying 66.99% of the 60% of cases selected for the analysis, this fell to 59.38% for the remaining 40% of firms (i.e. non-selected cases). This lower 'posterior probability' suggests that the function has relatively limited predictive power.

Although, given their prior probabilities (i.e. the proportion of firms that might be expected to be successfully classified by chance), the proportion of the small group of growth firms successfully classified is high, it is rather lower for static and contracting firms because many were wrongly classified as being growth firms. In other words, using these two variables, there is a fairly high chance of non-growth firms being identified as growth firms. This provides more evidence to suggest that the targeting of potential growth firms on the basis of such characteristics is likely to be difficult. Interestingly, when 'Use of Business Planning' is included in the analysis along side the other two variables, the proportion of cases successfully classified falls for both selected and non-selected cases, adding weight to the argument that any causal link between planning and employment growth is a weak one.

Using the current number of people employed as a further measure of employment growth, similar chi-squared results emerge. The Secondary Null-Hypothesis that no significant differences exist in the current number of people employed by firms whilst accepted in the case of most characteristics, was rejected in four instances (see Table 5.4).

**Table 5.4 Chi-Squared: Variations in the Current Number of Employees**

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Prior Business Ownership	9.19603	0.01007
Use of Business Planning	7.72967	0.02097
Depth of Business Planning	13.97964	0.00736
Company Ownership	33.04176	0.00000

An examination of the appropriate cross-tabulations (see Appendix 2) shows that whilst 13% of first time business owners employ two or more people, the proportion

is 33.3% for those OMs with prior experience of running a firm. This might suggest that more experienced owner-managers start-up with more employees, a conclusion confirmed by subsequent testing using Chi-Squared. 22% of firms owned by people with previous ownership experience employed two or more people, compared to 6.6% among those with no prior experience. However, a comparison of these figures with those relating to current employment levels shows that whilst growth in the proportion of firms employing more than two people has occurred in both firms managed by first time owners and those run by more experienced owners, the size of the increase is greater amongst those with previous experience, thus confirming earlier findings.

As far as business planning is concerned, 23.2% of planners employ two or more people whilst the same is true of only 5.7% of non-planners. The association between planning and numbers employed is also borne out by the fact that a significantly greater proportion of deep planners employ two or more workers. However, in a similar manner to earlier findings, it is likely that a greater planning effort is the result of the larger number of employees, rather than the other way around.

Another characteristic which appears to account for differences in numbers currently employed by post start-up firms is the nature of company ownership. One possible concern here is that despite the instructions given, OMs might have counted themselves amongst their employees. This would explain the large proportion of sole traders employing one person and the larger amount of 'other' firms (by far the greatest proportion of which are partnerships) employing two or more. However, following further clarification in the second questionnaire, significant differences again emerged, thus supporting the validity of the original finding.

Overall, these results imply that those businesses that are established as more 'serious' ventures - that is, they are planned more carefully and have been established as partnerships or Limited Companies - are more likely to employ more people. When combined with earlier results, there is also some evidence to suggest that they are more likely to have grown in employment terms than other post start-up businesses. Perhaps the most significant results are those relating to prior business ownership since the associations recorded can clearly only operate in one direction.

#### **5.4 Variations in Employment Growth Ambitions**

In order to test for variations between firms in employment growth ambitions for the next five years, all responding companies were categorised as either 'High Ambition Firms' (those wanting to grow by more than 50%), 'Low Ambition Firms' (those wanting to grow by between 1% and 50%) or 'No Ambition Firms' (those wanting to stay the same size). As there were no significant differences in ambitions between firms employing different numbers of people, such a percentage scale was deemed an acceptable measure of growth ambitions. To test Primary Null-Hypothesis 2, five Secondary Null-Hypotheses were again proposed:

*There exist no significant differences in employment growth ambitions between target firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different planning characteristics;
- iv) different business objectives;
- and* v) different performance characteristics.

As shown in Table 5.5 below, significant differences were observed in four instances, and so the associated Secondary Null-Hypotheses were rejected.

**Table 5.5 Chi-Squared: Variations in Owner-Managers Growth Ambitions**

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Employment Growth	9.68697	0.00788
Industrial Sector	19.01395	0.00414
Financial Objectives	17.98819	0.00626
Use of Business Planning	8.03680	0.01798

In addition to the previously discussed differences relating to employment growth and the use of business planning, significant variations between firms from different industries and with different financial objectives were also found to exist (see Appendix 2). Not surprisingly, a greater proportion of firms aiming to achieve large or medium profits had high growth ambitions (45% and 47.6% respectively) than was the case for firms aiming to achieve low profits (20%) or simply to get by (16%). Meanwhile, the greatest single proportion of manufacturing firms (including construction and transport) and retail firms aimed to achieve high employment growth (52.9% and 44.8% respectively) whilst the largest single proportion of service and 'other' firms had low growth ambitions (57.1% and 61.3% respectively). Over a quarter of retail firms also claimed to have no growth ambitions, demonstrating a wider spread of ambitions amongst this group. Thus the clearest finding overall is the consistently higher level of growth ambitions amongst manufacturing firms.

The table of discriminant analysis results below shows the predictive power of selected variables in classifying firms according to their growth ambitions.

**Table 5.6 Discriminant Analysis: Growth Ambitions**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Financial Objectives	Canonical Correlation	0.2881
	Wilkes lambda	0.9170
	Eigenvalue	0.0905
	Chi-square	8.664
	Significance Level	0.0131

<b>Selected Cases</b>				
Actual Group	No. of Cases	Predicted Group		
		No Growth	Low Growth	High Growth
No Growth	21	0%	38.1%	61.9%
Low Growth (1-50%)	54	0%	53.7%	46.3%
High Growth (50% or more)	33	0%	24.2%	75.8%
Ungrouped	0	0%	0%	0%
% Correctly Classified				50.0%
<b>Non-Selected Cases</b>				
Actual Group	No. of Cases	Predicted Group		
		No Growth	Low Growth	High Growth
No Growth	6	0%	50%	50%
Low Growth (1-50%)	34	0%	61.8%	38.2%
High Growth (50% or more)	29	0%	20.7%	79.3%
Ungrouped	0	0%	0%	0%
% Correctly Classified				63.77%

The results show that using the stepwise selection procedure, 'Financial Objectives' was the only variable included in the analysis. Interestingly, the posterior probability shows a considerable improvement upon the classification results for selected cases. Given the level of prior probabilities, results suggest the function to be an effective one. However, no non-growth oriented firms were correctly identified for either selected or non-selected cases. Further, the function is based purely upon a measure of financial aims and so might be expected to closely reflect growth ambitions.

### **5.5 Variations in Owner-Manager Perceptions of the Importance of Factors Affecting Growth**

Since the data provided by OM responses to Questions 14-16 is ordinal in nature with that from all other questions used either ordinal or nominal, Pearson's Chi-Squared was again used in initial attempts to examine differences between firms in their perceptions of the importance of individual factors.

For each of the factors influencing the growth performance of small firms examined, and to test Primary Null-Hypothesis 3, the following Secondary Null-Hypotheses were assumed:

*There exist no significant differences in OM perceptions of the importance of each given factor between firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different planning characteristics;
- iv) different business objectives;
- and* v) different performance characteristics.



In most cases, the null-hypothesis was accepted, either because a 95% confidence level was not attained or on the grounds that the conditions for accepting a significant test result as valid could not be met. However, a number of tests did result in valid significant differences being identified, allowing the associated secondary null hypothesis to be rejected.

The results of those tests where significant differences in responses between groups were shown to exist are summarised in Table 5.7.

**Table 5.7 Chi-Squared: Variations in the Importance of Factors Affecting Growth**

<b>Factor Influencing Growth Performance</b>	<b>Variable Associated with Difference</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Availability of Materials	County Location	12.539	.0137
Availability of Suitable Premises	Type of Industry	26.284	.0097
Availability of Suitable Premises	Sex	12.257	.0155
Level of Business Rates	Type of Industry	36.873	.0002
Availability of Finance from Lenders	Employment Growth	11.853	.0185
Availability of Finance from Lenders	Employment Growth Ambitions	15.382	.0521
Availability of Finance from Lenders	Type of Industry	33.674	.0008
Availability of Finance from Lenders	Number of Employees One Year After Start of First Years Trading	16.200	.0396
Availability of Finance from Lenders	Current Number of Employees	25.114	.0015
Availability of Finance from Lenders	Previous Business Ownership	10.603	.0314
Availability of Finance from Lenders	Use of Business Planning	9.919	.0418
Level of Interest Rates	Employment Growth	15.800	.0033
Level of Interest Rates	A Levels	11.342	.0414
Level of Interest Rates	Type of Industry	44.308	.0000
Level of Interest Rates	Current Number of Employees	25.080	.0051
Speed of Debt Repayment by Customers	Urban/Rural Location	11.012	.0254
Speed of Debt Repayment by Customers	Sex	22.844	.0001
Planning Restrictions	Depth of Planning	16.136	.0404
Ability to Develop New Production Processes	A Levels	9.941	.0414
Ability to Enter New Markets	Urban/Rural Location	12.365	.0148
Ability to Enter New Markets	Use of Business Planning	14.651	.0055
Ability to Manage Stock	Employment Growth Ambitions	17.539	.0250
Ability to Manage Stock	Use of Business Planning	11.398	.0224
Ability to Manage Stock	Depth of Planning	21.646	.0056
Purchasing Ability	Employment Growth Ambitions	18.684	.0166
Purchasing Ability	Degree	11.120	.0253
Ability to Manage Staff	Type of Industry	27.751	.0060
Ability to Manage Staff	Number of Employees One Year After Start of First Years Trading	22.445	.0042
Ability to Manage Staff	Current Number of Employees	29.622	.0003
Ability to Manage Staff	County Location	11.366	.0227
Ability to Borrow	Employment Growth Ambitions	21.097	.0068
Ability to Borrow	Number of Employees One Year After Start of First Years Trading	24.386	.0020
Ability to Borrow	Previous Business Ownership	10.077	.0392
Ability to Generate Funds Internally	Previous Business Ownership	14.213	.0067
Ability to Generate Funds Internally	Use of Business Planning	10.081	.0391
Level of Variable Costs	Degree	11.145	.0250
Level of Fixed Costs	Degree	11.853	.0185
Level of Fixed Costs	Urban/Rural Location	14.777	.0052
Productive Capacity	County Location	9.723	.0454
Productive Capacity	Sex	10.551	.0321
Level of Staff Skills	Number of Employees One Year After Start of First Years Trading	17.124	.0289
Level of Staff Skills	Current Number of Employees	18.452	.0181
Access to New Technology	County Location	9.685	.0461
OM Drive	Use of Business Planning	8.596	.0136
Ability to Develop a Corporate Culture	Employment Growth	21.326	.0002
Ability to Develop a Corporate Culture	Current Number of Employees	15.994	.0425
Ability to Develop a Corporate Culture	Previous Business Ownership	12.776	.0124

Some of the largest values of Chi-Squared found in Table 5.7 relate to significant differences in the responses of firms operating in different types of industry. One of the factors where significant differences are observed is the availability of suitable premises. An examination of the appropriate cross-tabulation (see Appendix 2) shows that retail firms, those involved in manufacturing, construction or transportation and those placed in the 'other' category regard this factor as being of greater importance in its influence on company growth than do service firms, 59.5% of which regard the factor as being either 'unimportant' or 'very unimportant'. This most likely reflects the fact that unlike most manufacturing or retail concerns, many service businesses can be, and often are, run from the owner-managers home. The level of business rates is another factor over which OMs from different industries differ in opinion with regards to its importance to growth. 68.9% of retail firms see it as either 'important' or 'very important' compared to 47.1% in manufacturing and just 17.9% for service companies. This again reflects the different premises requirements of different types of business.

Similar differences exist between firms in their perception of the importance of financial factors. Both manufacturing and retail firms regard the availability of finance from lenders and the rate of interest charged on loans as being of greater importance to their growth performance than do firms in other industries, indicating a greater degree of reliance upon external funding among such firms. With regard to the OM's ability to manage staff, manufacturing firms again see this as being more important as an influence upon growth than do other types of firm. Though manufacturing firms do not employ significantly more people than other types of business, this finding is consistent with the fact that a significantly greater proportion of manufacturing businesses have high employment growth ambitions (see section 5.4).

It is not just the industry to which a company belongs that is associated with differences in perception among OMs about the importance to growth of personnel management skills. Chi-Squared test results show that perceptions differ significantly between firms employing different numbers of people. Not surprisingly, larger firms regard personnel management skills to be much more important as an influence on growth than firms employing fewer staff or no staff at all. The size of a firms workforce has a similar effect upon perceptions of the importance of both corporate culture and the level of staff skills, again reflecting the greater relevance of these issues to firms employing more staff.

Similar differences exist in relation to the importance of three of the financial factors affecting the growth performance of post start-up firms. The availability of finance from lenders, the OM's ability to borrow and the rate of interest on loans are each regarded as being of greater importance by firms employing two or more workers than by firms employing one worker or none at all. These results illustrate the greater financing requirements of larger businesses. Perhaps more importantly, similar significant differences in the importance attached to the level of interest and the availability of finance from lenders occurred between firms experiencing different levels of employment growth. In each case, a greater proportion of firms that had increased in size viewed the factor as being either 'extremely important' or 'important' than did static and declining businesses. This clearly demonstrates the particular need for external finance and affordable finance among growth businesses. These findings are underlined by similar results showing significant differences in the importance attached to the availability of finance and the OM's borrowing ability between firms with different growth ambitions.

Further differences between businesses with varying levels of employment growth and growth ambition relate to non-financial factors. The fact that a greater proportion of firms that had experienced increases in numbers employed regarded

corporate culture as either 'important' or 'extremely important' to growth is a further indication of the importance of personnel related issues to firms employing more people. Meanwhile, the greater proportion of high growth ambition small businesses attaching importance to the owner-manager's purchasing ability and stock management ability reflects the fact that a greater proportion of retail and manufacturing firms have high growth ambitions.

Although differences in industry type, company size, employment growth and growth ambitions account for many of the largest significant differences shown in Table 5.7, other variations in company characteristics are also important. For instance, significant differences in the importance of some factors exist between those companies located in Devon and those located in Cornwall. The availability of materials, personnel management skills and the productive capacity of a firm are all seen as being of greater importance in influencing growth by Cornish firms than by firms in Devon. A different picture emerges in the case of the importance of access to new technology. Although 13.5% of Devon's post start-up firms feel that this factor is 'extremely unimportant' (compared to none in Cornwall) a greater proportion of firms in Devon also regard it as either 'important' or 'extremely important' with the largest single proportion of Cornish firms (51.1%) being committed neither way. Given that no significant differences exist between firms from different counties in terms of their employment size or industrial sector, these differences are more difficult to explain. As those characteristics that do differ significantly between firms from the two counties ('Urban/Rural Location', 'Previous Occupation' and 'Company Age') are not associated with differences in the importance of the factors cited above, it is possible to conclude that other factors related to the distinctive nature of each of the two counties, but not covered in the questionnaire, may account for the variations observed. These might include the more peripheral location of Cornwall and, in relation to 'The Availability of Materials', perhaps a greater proportion of craft based firms in this county.

An association also appears to exist between the sex of a firm's OM and the importance attached to some factors. Male OMs see both the speed of debt payment by customers and the productive capacity of their firms as being more important in influencing the growth performance of their companies than do female OMs. The association between sex and debt payment as a factor influencing growth may result from the fact that 64.2% of male OMs have their firms located in rural areas compared to 50% of female OMs. Other results show significant differences in the importance attached to debt recovery between rural and urban firms, possibly resulting from differences in the distance of firms from their customers. An alternative explanation might simply be that female OMs are more effective than male OMs in recovering debts and therefore regard it as less of an important factor. A somewhat less clear picture emerges regarding the influence that OM sex has upon perceptions associated with the importance of the availability of suitable premises. The distribution of responses from females is closer to being 'U' shaped than that from male OMs, a larger proportion of whom feel that the factor is 'neither important nor unimportant' (i.e. the distribution is approaching normality). This might in part be a reflection of the fact that 26.4% of female OMs are in the retail sector compared to 12% of male business owners.

The Chi-Squared test also uncovered significant differences in the importance of some factors influencing small firm growth between those firms run by first time business owners and those with prior ownership experience. Those for whom their current business was not their first felt that the availability of finance from lenders, their ability to borrow and their ability to generate funds internally were of greater importance to their company's growth than did first time business owners. This suggests that experienced owner-managers are more aware of the difficulties involved in securing external finance or building their business up enough to generate funds from within the company. These two problems are likely to be related in as much as the availability of initial external funding at start-up can

determine the extent to which a firm can become sufficiently well established to be able to generate its own funds for expansion and growth. As already seen, a greater proportion of firms run by people with prior ownership experience have achieved growth during the post start-up period. They also tend to have higher growth ambitions. This shows once again that access to finance is much more of an important issue for those firms that have achieved employment growth or who desire to achieve it.

Further significant differences occurred between firms in urban areas and those in rural areas. For both their ability to enter new markets and the speed of debt payment from their customers, the main differences between firms in rural and urban areas arise largely in the extent to which they see the factors as being 'extremely unimportant' or 'extremely important', as opposed to just 'unimportant' or 'important'. In both cases, it is noticeable that a larger proportion of urban firms than rural firms see the factors in question as 'extremely unimportant', perhaps indicating the disadvantages of a rural location in terms of distance from debtor customers and potential new markets. Overall however, the importance of each factor is rated highly by firms in all locations. A clearer picture emerges in the case of the level of fixed costs which are regarded as being of greater importance by firms in rural areas.

Significant differences in the importance attached to factors by OMs with different educational backgrounds are also apparent. Those OMs without degrees are, on balance, more likely to attach greater importance to the level of variable and fixed costs and purchasing ability. Meanwhile, those without A' Levels attach greater importance to the level of interest rates, but less to the development of production processes. Overall, the results suggest that those OMs without higher level qualifications are less concerned about practical production related issues than those without but are perhaps more concerned about external environmental factors such

as interest rate levels. However, in each but the latter case, the results are likely to be affected by a tendency for a larger proportion of those OMs with A' Levels or a degree to select the neutral 'Neither Important nor Unimportant' response option.

A final group of factors which appear to account for some significant differences in the responses of OMs relate to the nature of planning in small firms. In particular, differences exist between those firms that do plan and those that do not. The availability of finance, the drive of individual OMs, a firms ability to enter new markets, to manage stock and to generate funds internally all appear to be viewed as being more important to growth by planning firms than by non-planning firms.

The differences that exist between planning firms and non-planning firms predictably become less significant when comparing non-planners, shallow planners and deep planners. Only differences in the importance attached to stock management competencies remain significant, though associations with all of the factors cited above come close to being significant. Interestingly, the importance of an additional factor, 'Planning Restrictions', shows significant differences between firms that plan to varying depths. Again the factor is viewed to be marginally more important by deep planners, though the main difference amongst firms is the high proportion of shallow planners choosing the neutral response option. Such a 'U' shaped distribution might imply that other factors are more critical in accounting for the differences observed. More generally, the likelihood that OM perceptions of the importance of particular factors in affecting their firms growth might influence the approach to planning adopted by a firm should be borne in mind when interpreting some of the results. In other words, the possibility of mutual (or reverse) causation must be considered. Alternatively, it could be the case that other company characteristics account for both the nature of planning in a firm *and* its OMs perceptions as to those factors most critically influencing growth. In particular, this is likely to be the case for firms that have experienced differing degrees of



employment growth or that employ different numbers of people. Thus associations relating to particular planning procedures might in fact detract from the real reasons for the variations seen.

An examination of the associations revealed by the Pearson's Chi-Squared test shows that the significant differences that exist are accounted for by a relatively small amount of recurring characteristics, the most important of which appear to be industry type and the number of current employees. Other characteristics of importance relate to employment growth, growth ambitions, company location, prior business ownership, OM sex and the nature of business planning procedures. Characteristics which appear to have no significant effect on the importance attached to factors influencing small firm growth include: company age, company ownership, OM's previous occupation, OM's reasons for starting their current business, OM age, the formality and timescale of business planning, company financial objectives, current profit performance and the extent of non Devon and Cornwall trade.

Whilst Pearson's Chi Squared test was able to provide a number of useful results, certain limitations are apparent. First, although Chi-Squared is able to identify differences in responses between cases, it is less able to confirm direct cause and effect relationships. In addition to this, whilst the test was able to identify significant differences in relation to individual variables, broader patterns in the way that firms with particular characteristics perceived the importance of different types of factors influencing small firm growth were less apparent. In particular, it would be useful to understand differences in perception regarding the importance of external factors, internal factors and OM related factors. Through gaining such an understanding, conclusions could be drawn regarding the broad approach that support should take. That is, should the emphasis be upon developing internal competencies or on the OM's personal development and should the emphasis be different for different types

of young post start-up business? Further, what might the implications be of differences in perception with regard to the importance of external factors which might be more difficult to address through support provision. In order to examine the data further and attempt to develop a clearer vision of any such broad patterns, other statistical techniques had to be employed. Cluster analysis is one technique which is particularly appropriate to this task in terms of both the nature of the data being analysed and the objectives of the research.

### **5.5.1 Cluster Analysis**

Aldenderfer and Blashfield (1984) define a clustering method as *"a multivariate statistical procedure that starts with a data set containing information about a sample of entities and attempts to reorganize these entities into relatively homogenous groups"*. Thus the main aim of cluster analysis is to identify groups of similar entities (clusters) in a sample of data. In relation to the data generated from the first questionnaire survey, its usefulness stems from its ability to identify groups of cases on the basis of their similarity in responses to Questions 14 to 16. OMs expressing similar views on the importance of the factors listed in each question can be identified as belonging to a particular cluster group. By examining the nature of cases within each group, it may then be possible to develop an appropriate classification. If exploratory analysis proves successful, hypothesis testing can subsequently take place. Through this, it can be established whether or not significant differences exist in the various company, owner-manager, planning, objective and performance characteristics of firms between the different cluster groups. As a result it may be possible to identify broader patterns in the way that firms with different characteristics perceive the importance of factors influencing their growth performance, thus adding a different perspective to the earlier tests of Primary Null-Hypothesis 3.

Using SPSS for Windows, cases were grouped according to their responses to Questions 14 - 16 using the Ward's clustering method (Ward, 1963). This is an agglomerative hierarchical clustering technique which carries out successive fusions of individual cases up to the point where all individuals are contained within one group. In the Ward's method, merger occurs between those two clusters (these can be individual cases or groups of cases) "*whose fusion results in the minimum increase in the error sum of squares*" (Everitt, 1980). This process continues on a step-by-step basis until all clusters combine to form one group. In establishing how alike different entities are, the Euclidean distance measurement is used (for alike entities, *distance* measures are small whereas *similarity* measures are large). Since the variables corresponding to Questions 14 to 16 are all measured using an identical Likert scale, standardisation was not necessary.

The dendrogram and agglomeration schedule resulting from the cluster analysis of Questions 14 to 16 combined are shown in Appendix 2. As Everitt (1980) points out, no completely satisfactory technique for determining the number of clusters within a data set of cases has been developed. Indeed a lack of any clear definition of what constitutes a cluster, and the inability of existing statistical theory to unravel the complicated mix of different multivariate sampling distributions that make up 'real world data', make the likelihood of any such technique being developed remote (Aldenderfer and Blashfield, 1984). However, using a purely heuristic approach, it is apparent that two clear clusters are present within the data being examined. With the cases divided in to two groups by the first major branching off in the tree formation shown by the dendrogram, the first cluster contains all the cases listed on the vertical axis between 77 and 118 whilst the second cluster comprises those between cases 36 and 64. The choice of two clusters is also shown to be appropriate by the substantial increase in the size of coefficients between stages 149 and 150 in the agglomeration schedule - that is between the one and two cluster solutions (Norusis, 1985). In the final analysis, more rigid statistical techniques, even if they

existed, might not be productive in determining the optimal number of cluster groups since, as Gnanadesikan and Wilk (1969) reflect, interpretation and simplicity are also important features of data analysis.

In order to examine the differences between the two clusters in terms of their responses to Questions 14-16, frequency tables for each cluster were calculated and compared. From these, it became clear that a higher proportion of firms in Cluster 1 viewed the factors listed to be 'important' or 'very important'. Conversely, a larger proportion of firms from Cluster 2 rated each factor as either 'unimportant' or 'very unimportant'. Whilst the extent of these variations differed considerably from factor to factor, in each case (and as would be expected given the purpose of the technique) the differences were either significant or were approaching significance when Pearson's Chi-Squared test was applied. Thus in broad terms, Cluster 1 firms can be categorised as those tending to attach a high degree of importance to the factors whereas Cluster 2 firms are those that tend to attach a lower degree of importance to them.

Having proposed the above categorisation, it is possible to proceed to explore its usefulness in helping to explain differences in the perceived importance of factors influencing the growth performance of the sample of firms surveyed. Using Pearson's Chi-Squared test, the following Secondary Null-Hypotheses were tested:

*There exist no significant differences in cluster membership between firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different planning characteristics;
- iv) different business objectives;
- and* v) different performance characteristics.

Table 5.8 shows that in the case of eight characteristics, associated null-hypotheses were rejected.

**Table 5.8 Chi-Squared: Variations in Cluster Membership** (for clusters based on responses to Questions 14, 15 and 16 combined)

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Industrial Sector	30.08155	0.00000
Current Employees	12.24040	0.00220
Company Ownership	4.64324	0.03118
Use of Business Planning	10.57874	0.00114
Depth of Business Planning	13.51274	0.00116
Financial Objectives	7.80007	0.05033
Employment Growth Ambitions	14.71749	0.00064
Employment Growth	12.63597	0.00038

The cross-tabulation associated with each significant difference is contained in Appendix 2. These show that important and distinct differences exist in the characteristics of firms from different clusters. These characteristics relate to the company itself, its planning procedures, its objectives and its performance.

The very high level of significance associated with differences in industrial sector between the two cluster groups results from the strong bias towards manufacturing

firms and retail establishments among Cluster 1 firms, against the far larger proportion of Cluster 2 firms in service industries and other sectors. As regards the number of employees, whilst 36.2% of Cluster 1 firms employ two or more workers, this is the case for only 11.8% of Cluster 2 firms, a far larger proportion of whom employ no workers at all. Corresponding to these findings, a smaller proportion of Cluster 1 firms are run by sole traders than is the case among Cluster 2 businesses.

Turning to business planning procedures among survey respondents, Cluster 1 firms have a much greater propensity to plan than do Cluster 2 firms. Furthermore, whilst only 12% of Cluster 2 firms are deep planners, 29.4% of Cluster 1 firms carry out planning in depth.

Significant differences also exist between clusters in their company performance objectives. An examination of profit objectives shows a tendency for Cluster 1 firms to be more ambitious with 70.6% of firms hoping to achieve large or medium profits, against 52% of Cluster 2 firms. Nevertheless, a reasonably large proportion of firms from both clusters were happy to simply 'get by' financially. Larger disparities are apparent in the case of employment growth ambitions. 54.9% of Cluster 1 firms expressed a desire to expand by over 50% in the next five years compared to 25% of Cluster 2 firms, a further 20% of whom did not want any growth at all. In terms of actual employment growth (from start-up to the time of the survey), a much larger proportion of Cluster 1 firms (34%) had increased in size than Cluster 2 firms (9.7%). Conversely, 90.3% of Cluster 2 firms remained static or declined in employment size compared to 66% of Cluster 1 companies. The fact that no significant differences existed in the age of firms between Clusters 1 and 2 suggests that this result is unlikely to have been caused by differences in the length of time that firms have been operating.

To summarise, the significant differences found using Pearson's Chi-Squared test show that in certain respects, the nature of firms from the two cluster groups is different. Cluster 1 firms, which attach greater importance to all the factors influencing small firm growth listed in Questions 14 - 16, tend to operate in the retail or manufacturing sectors, employ more workers, are more often run by partners or as limited companies, are more likely to undertake business planning, and in greater depth, have higher profit and employment growth ambitions and have grown more in employment terms than Cluster 2 firms. Overall, the results suggest that it is these types of firm that are most concerned about their internal and external environment. This is clearly a reflection of the greater commitment that their OM's have to their businesses as serious ventures.

Further insights as to how owner-manager views vary can be gained by performing a cluster analysis based upon the responses of firms to particular groups of questions among Questions 14 - 16. In particular, the characteristics of those firms emphasising the importance of external factors, internal factors and owner-manager factors can be examined and compared.

The agglomeration schedules and dendrograms resulting from the separate clustering of firms on the basis of responses to Questions 14 (external factors), 15 (internal factors) and 16 (OM factors) are shown in Appendix 2. In each case, the Euclidean distance measure and Ward's clustering method was used.

Again an examination of each agglomeration schedule and dendrogram suggests that while a larger number of smaller, less distinct clusters could be argued to exist (particularly in relation to responses to Question 15), two main cluster groups emerge most clearly from the analysis. In all three, the responses of those firms in Cluster 1 show that they attach greater importance to the factors listed under the

relevant question than do those in Cluster 2. As the dendrograms suggest, these differences are most distinct in the case of Questions 14 and 15.

Using Pearson's Chi-Squared, the characteristics associated with significant differences between cluster groups were identified for each of the three analyses. In each case, the Secondary Null-Hypothesis proposed was again that:

*There exist no significant differences in cluster membership between firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different planning characteristics;
- iv) different business objectives;
- and* v) different performance characteristics.

Table 5.9 shows that in relation to differences between the two clusters of firms based upon responses to Question 14 (on the importance of external factors), the associated null-hypothesis was rejected in six cases. The characteristics associated with the differences all relate to the company itself, the owner-manager or the firm's business planning procedures.

**Table 5.9 Chi-Squared: Variations in Cluster Membership** (for clusters based upon responses to Question 14)

Variable	Pearson's Chi-Squared	Significance
Company Age	10.73008	0.01328
Industrial Sector	18.30300	0.00038
Urban/Rural	4.80886	0.02831
County Location	7.28660	0.00695
Use of Business Planning	5.46137	0.01944
Start-Up Reasons	13.28705	0.00996



The cross-tabulations in Appendix 2 reveal the nature of the significant differences observed. They show that a greater proportion of Cluster 1 firms (i.e. those that, overall, attach a higher degree of importance to external factors) are aged over 18 months than is the case for Cluster 2 firms. Conversely 38% of Cluster 2 firms are aged 13 to 18 months compared to 18.6% of Cluster 1 firms. A greater proportion of Cluster 1 firms also tend to operate in the manufacturing (27.5%) or retail (17.6%) sectors in relation to Cluster 2 businesses (8% and 4% respectively), 68% of which are in the service sector. Further, a higher proportion of Cluster 1 firms are found in rural areas (66.7% compared to 47% for Cluster 2 firms) and are located in the county of Cornwall (32.4% compared to 12% for Cluster 2 firms). Cluster 1 firms are also more likely to undertake business planning (71.3% compared to 52%) and to have started-up because of the identification of a market opportunity.

Table 5.10 shows the characteristics associated with significant differences between those firms which attach greater importance to internal factors (Cluster 1 firms) and those that, relative to Cluster 1 firms, do not (Cluster 2 firms). These differ in some cases to those listed in Table 5.9. The associated null-hypothesis was rejected in seven cases.

**Table 5.10 Chi-Squared: Variations in Cluster Membership** (for clusters based upon responses to Question 15)

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Current Employees	11.29425	0.00353
Company Ownership	4.47692	0.03436
County Location	3.98166	0.04600
Urban/Rural	4.48718	0.03415
Prior Business Ownership	4.11354	0.04254
Depth of Business Planning	9.00758	0.01107
Employment Growth	6.24603	0.01245

The cross-tabulations in Appendix 2 show similarities to the previous cross-tabulations relating to external factors in the case of county location and the rural or urban location of the firms surveyed. Again, significantly more Cluster 1 firms are found in rural areas and in Cornwall. However, significant differences also exist between Cluster 1 and 2 firms in the number of people currently employed, with 22.1% of Cluster 1 firms employing 2 or more people compared to 4.4% of Cluster 2 firms. Further, a greater proportion of Cluster 1 firms have experienced employment growth (20.5% compared to 4.4% of Cluster 2 small businesses). Significantly more Cluster 1 firms are owned by partners and by people with previous experience of business ownership. Cluster 1 firms also exhibit greater depth in their planning activities, with 23.8% of Cluster 1 firms categorised as deep planners compared to 4.2% of Cluster 2 firms.

Table 5.11 shows the significant results of the Chi-Squared test when applied to the two clusters of firms based upon responses to Question 16 on the importance of owner-manager factors. In five cases the proposed null-hypothesis was rejected.

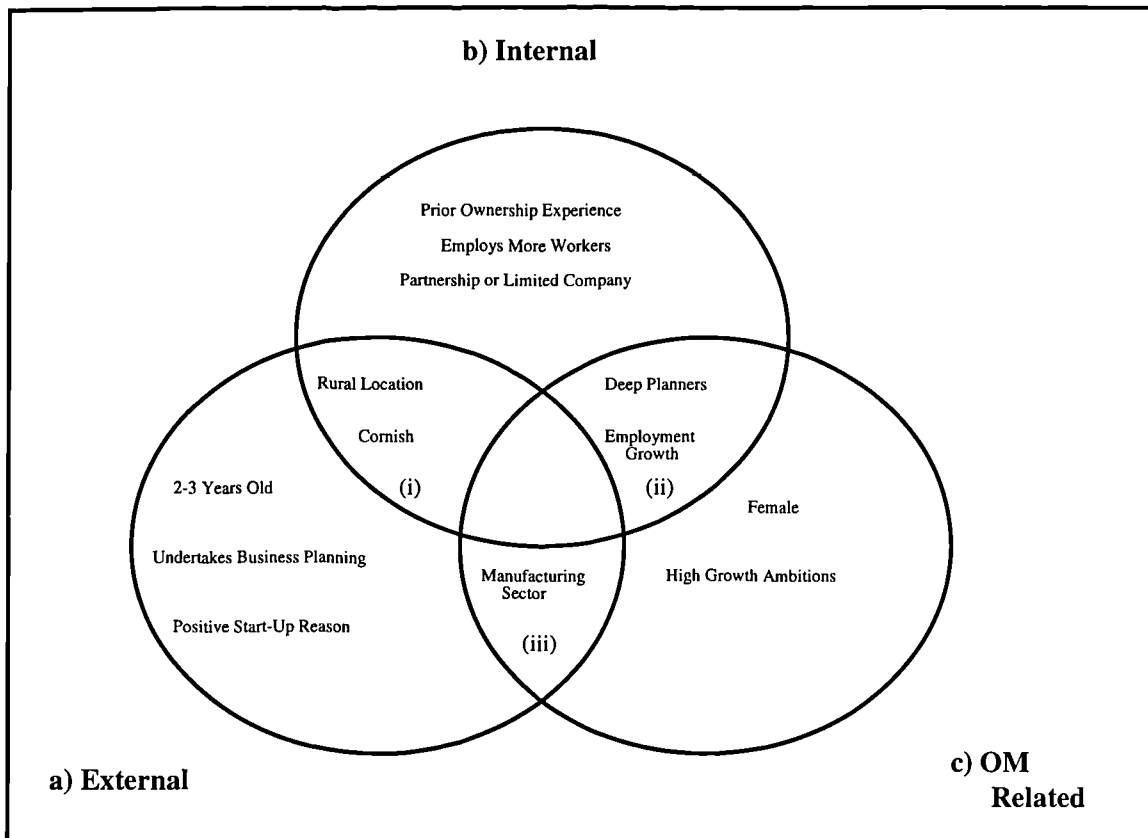
**Table 5.11 Chi-Squared: Variations in Cluster Membership** (for clusters based upon responses to Question 16)

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Owner-Manager Sex	6.13426	0.01326
Industrial Sector	11.25563	0.01042
Depth of Business Planning	6.25879	0.04374
Employment Growth	3.99653	0.04559
Employment Growth Ambitions	10.86926	0.00436

The cross-tabulations in Appendix 2 show that a greater proportion of Cluster 1 firms (that is those rating the importance of OM factors in influencing growth more highly) are owned by women (37.3% compared to 20% for Cluster 2 firms). A greater proportion of Cluster 1 firms have also experienced employment growth than Cluster 2 firms. Conversely, 90.3% of Cluster 2 firms remained static or shrank compared to 78.7% of Cluster 1 businesses. Furthermore, a greater proportion of Cluster 1 firms had high employment growth ambitions (45.1% compared to 21.3% for Cluster 2 firms). They are also more likely to operate in the manufacturing sector and to plan in greater depth.

Figure 5.1 below summarises the results given in Tables 5.9 to 5.11 and Appendix 2 by showing those company characteristics associated with a tendency to attach a high degree of importance to a) external factors, b) internal factors and c) OM related factors. Characteristics associated with significant differences in more than one analysis are shown in the overlapping areas.

**Figure 5.1 Summary of Characteristics Associated with a Tendency to Attach a High Degree of Importance to a) External Factors, b) Internal Factors & c) OM Related Factors**



The figure above draws out a number of important issues. First, it demonstrates that firms with different characteristics attach varying degrees of importance to different groups of factors as well as to different individual factors. This has implications in terms of the ability of support to satisfy certain groups of firms. These rest on the assumption that within the present resource constrained business support framework, it is easier to develop internal competencies through training and other assistance than it would be to influence external factors (such as interest rates or the state of the economy) or owner-manager related factors (such as the owner-managers drive or work experience). If this is the case, then those who would gain the most benefit from support would be those who attach a greater degree of importance to internal factors - that is more 'trainable' factors. The results presented

above suggest that these would include those firms employing a greater number of people, those that are not owned by one single person and those owned by individuals with prior ownership experience. Equally, and given the assumption that external and OM related factors are in fact more difficult to address through training, those firms possessing the characteristics shown in circles (a) and (c) would be less likely to gain from training unless alternative approaches to support were developed and adopted. Those firms with the characteristics shown in overlaps (i) and (ii) would gain some benefit from training but other factors of importance to their growth performance are less likely to be satisfactorily addressed. Thus the analysis presented in Figure 5.1 provides a possible basis for the targeting of support towards those firms most likely to have their needs addressed through competency based training. If the growth needs of those firms attaching higher degrees of importance to external and OM related factors are to be addressed, then support would clearly need to take an approach which is not based purely on competency development. This might, for instance, include motivation training and help with infrastructural development.

A second issue relates to the levels of employment growth attained amongst post start-up businesses in the period 12 to 36 months after start-up. It would appear that a greater proportion of those firms tending to attach a higher degree of importance to internal and owner-manager related factors have performed well in this respect. This would seem to suggest that if support efforts are to aim towards the achievement of growth, then a focus on internal and owner-manager related issues would be desirable. However, as with earlier findings, it could be the case that in fact past growth *leads* to heightened concern about internal and owner-manager related factors since they then become more important to the successful operation of the business. Thus it would be wrong to presume that support in these areas would result in growth. However, they clearly are areas in which growth firms might

require more help and as such could usefully form the basis for any support for firms that have grown, are in the process of growing or perhaps that want to grow.

By using cluster analysis and Pearson's Chi-Squared test, it has been possible to demonstrate that firms attaching differing degrees of importance to particular groups of factors are significantly different with respect to certain of their company, owner-manager, planning, objective and performance characteristics. Thus a broad picture of the varying 'growth needs' of different types of firm has emerged. However, from a policy perspective, there is clearly a need to understand and quantify how important different characteristics are in distinguishing between firms that attach varying degrees of importance to internal, external and OM related factors if resources are to be allocated efficiently. In other words, to what extent can this information be reliably used to successfully identify firms with different growth needs? This is a particularly important question in relation to the importance of internal, more 'trainable' factors. Thus in the next stage of the analysis, discriminant classification techniques are employed to test the discriminating power of those characteristics isolated by previous tests as being potentially useful in distinguishing between cluster groups of firms. Significant differences in characteristics between those firms that are successfully classified and those that are not are also examined in order to isolate potential reasons for misclassification.

### **5.5.2 Discriminant Analysis**

For each separate discriminant analysis, a stepwise variable selection procedure was adopted, based upon the minimisation of Wilkes Lambda (Norusis, 1985). Using this approach, the 'best' predictor variables were identified from those previously found to be associated with significant differences between clusters. In other words, those variables that did not substantially improve classification success rates were excluded from the model.

The result tables below show both the variables selected for inclusion in the analysis and the classification results for each of the tests on the four cluster pairs (i.e. those associated with perceptions of the importance of a) external factors, b) internal factors, c) owner-manager factors and d) all factors combined). In each case, cluster categorisation is based upon a function derived from a randomly selected 60% of cases and applied to the remaining 40% of the cases in order to calculate the *postier probability*.

**Table 5.12 Discriminant Analysis: Clusters Based on Responses to Question 14**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Company Location	Canonical Correlation	0.2876
	Wilkes lambda	0.9173
	Eigenvalue	0.0902
	Chi-square	7.988
	Significance Level	0.0047

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	63	36.5%	63.5%
2	33	9.1%	90.9%
Ungrouped	12	33.3%	66.7%
% Correctly Classified			55.21%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	39	25.6%	74.4%
2	17	17.6%	82.4%
Ungrouped	14	14.3%	85.7%
% Correctly Classified			42.86%

Table 5.12 relates to the application of discriminant analysis to predict the membership of firms to clusters based upon the importance they attach to the external factors listed in Question 14. It shows that from the six independent predictor variables initially included in the analysis, all but one - Company Location - were excluded by the stepwise selection procedure. The classification results show that for those 60% of cases selected for the analysis, 55.21% were correctly



classified whilst the posterior probability for cases not selected was 42.86%, demonstrating that the function is a poor predictor. This was due largely to the considerable proportion of Cluster 1 businesses that were incorrectly classified. However, if a stepwise selection procedure is not used and all variables are simultaneously included in the analysis, the successful classification result for those 40% of cases not selected for the analysis increases to 64.81%.

Table 5.13 shows the results of the analysis applied to the two clusters of firms based on their perceptions of the importance of internal factors. Two variables - First Business and Urban/Rural - were selected by the stepwise procedure. Classification results show that a higher proportion of cases were correctly classified by this discriminant function: 71.96% for selected cases and 61.76% for non-selected cases.

**Table 5.13 Discriminant Analysis: Clusters Based on Responses to Question 15**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Prior Ownership Urban/Rural Location	Canonical Correlation	0.3486
	Wilkes lambda	0.8785
	Eigenvalue	0.1383
	Chi-square	12.828
	Significance Level	0.0016

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	77	81.8%	18.2%
2	30	53.3%	46.7%
Ungrouped	0	0%	0%
% Correctly Classified			71.96%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	53	66.0%	34.0%
2	15	53.3%	46.7%
Ungrouped	0	0%	0%
% Correctly Classified			61.76%

The results of the analysis relating to the two OM factor clusters are presented in Table 5.14. From the five predictor variables initially included, two were excluded by the stepwise selection procedure, leaving the variables Growth Ambitions 3, Sex and Company Type included in the analysis. The proportion of cases successfully classified was 66.67% for selected cases and 62.32% for non-selected cases.

**Table 5.14 Discriminant Analysis: Clusters Based on Responses to Question 16**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Employment Growth	Canonical Correlation	0.3815
Ambitions	Wilkes lambda	0.8545
Sex	Eigenvalue	0.1703
Industrial Sector	Chi-square	16.438
	Significance Level	0.0009

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	63	66.7%	33.3%
2	45	33.3%	66.7%
Ungrouped	0	0%	0%
% Correctly Classified			66.7%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	39	71.8%	28.2%
2	30	50.0%	50.0%
Ungrouped	0	0%	0%
% Correctly Classified			62.32%

The final table summarises the results of the discriminant analysis as applied to the two clusters emerging from the responses of firms relating to Questions 14 to 16 combined. The two independent variables included in the analysis after stepwise selection were Growth Ambitions 3 and Planning Depth (depth4). As the table shows, the classification success rates were higher than in previous analyses, with

72.92% of selected cases being successfully classified, falling slightly to 70.91% for non-selected cases.

**Table 5.15 Discriminant Analysis: Clusters Based on Responses to Questions 14-16**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Employment Growth	Canonical Correlation	0.4117
Ambitions	Wilkes lambda	0.8305
Depth of Business	Eigenvalue	0.2040
Planning	Chi-square	16.340
	Significance Level	0.0003

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	30	56.7%	43.3%
2	66	19.7%	80.3%
Ungrouped	12	50%	50%
% Correctly Classified			72.92%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	21	61.9%	38.1%
2	34	23.5%	76.5%
Ungrouped	15	40%	60%
% Correctly Classified			70.91%

Other than in the case of those clusters based upon responses to Question 14, the discriminant functions appear reasonably successful in predicting the cluster membership of cases when making a simple comparison of prior and posterior

probabilities. However, the proportion of cases successfully classified varies markedly between individual cluster groups. For the two analyses summarised in Tables 5.13 and 5.14, the proportion of firms successfully predicted to be members of Cluster 1 was relatively high whilst the proportion successfully predicted as members of Cluster 2 was rather lower. In other words, a relatively high proportion of the small number of firms attaching a lower degree of importance to external and OM related factors were wrongly classified. Thus to some degree, the promising classification results for Cluster 1 firms are undermined by poorer prediction rates for Cluster 2 businesses. Only results relating to all factors influencing growth combined showed levels of successful prediction that were considerably better than might normally be expected in relation to prior probabilities for both Cluster 1 firms and Cluster 2 firms, although this was most noticeably the case for Cluster 2 businesses. This suggests that whilst it may be possible to discriminate between those firms that generally view all factors to be important and those that generally view all factors to be rather less important, discriminating between firms whose owner-managers perceive that particular *types* of factors are important and those that do not is more difficult. Thus although the results indicate that significant differences do exist between businesses with different characteristics in terms of the importance they attach to different groups of factors influencing small firm growth, these differences appear not to be clear enough to allow successful prediction to occur. This was most clearly the case in relation to the levels of importance attached to external factors with discriminant analysis failing to correctly classify any more cases than would be expected by chance.

Whilst the more promising results relating to all factors combined may be useful from a policy perspective in as much as they might be said to isolate the strategically aware from the less strategically aware, even here, improvements in predictive performance in relation to what might be expected by chance are

moderate. Low eigenvalues also suggest that all of the discriminant functions are relatively poor ones.

Given these results and in order to gain a greater understanding of why cases were misclassified, Pearson's Chi-Squared test was used to establish what significant differences exist between those firms that were correctly classified and those that were not. For each set of results, a new variable was created, with different values assigned to correctly classified cases and those cases that were misclassified. In each instance, the following Secondary Null-Hypotheses were assumed:

*there exist no significant differences in the success of case classification between firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different planning characteristics;
- iv) different business objectives;
- and* v) different performance characteristics.

Table 5.16 summarises those results where the null-hypotheses were rejected at either a 5% or 10% level of significance.

**Table 5.16 Chi-Squared: Differences in Classification Success - All Cluster Groups**

<b>Variable</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
<i>Question 14</i>		
Urban/Rural Location	17.37132	0.00003
Prior Ownership	10.90354	0.00096
Depth of Business Planning	5.49426	0.06411
<i>Question 15</i>		
County Location	24.20116	0.00000
Current Non-Devon and Cornwall Trade	6.61692	0.08516
<i>Question 16</i>		
Owner-Manager Age	12.04640	0.01701
<i>Questions 14-16 Combined</i>		
Employment Growth Ambitions	6.55345	0.03775
County Location	3.67443	0.05525
Number of Employees at Start-Up	5.55019	0.06234

The table shows that for the two clusters based upon the importance attached by OM's to external factors, significant differences exist at the 5% significance level in both the OM's prior ownership experience and the urban/rural location of a firm between correctly and incorrectly classified cases. An examination of the cross-tabulations in Appendix 2 shows that the proportion of urban firms and first time businesses successfully classified (50% and 61.8% respectively) is lower than is the

case for rural firms (80%) and businesses owned by people with prior ownership experience (89.7%). At a 10% level of significance, significant differences were also observed in relation to the depth of business planning undertaken by firms, with 84.8% of firms undertaking deep planning being correctly classified compared to 62.7% for shallow planners and 66.1% for non-planners.

The only variable that differed significantly at the 5% level between correctly and incorrectly classified cases for the two clusters based upon the importance attached to internal factors was county location. 38.9% of Devon firms were correctly classified, compared to 84.6% of Cornish firms. At the 10% level of significance, differences also existed in the extent of non-Devon and Cornwall trade, with a higher proportion of firms 'exporting' 1-20% or over 60% of their product or service being misclassified.

For the two clusters of company cases based upon the importance attached by OMs to owner-manager related factors, just one variable, OM Age, varied significantly between correctly classified and misclassified firms. Here, the cross-tabulation in Appendix 2 suggests that it is the very youngest and the very oldest of OMs whose firms are most likely to be misclassified.

Significant differences were also recorded in the characteristics of firms between correctly and incorrectly classified cases where clusters were based on the importance to growth attached to all factors combined. The only one that was significant at the 95% level of confidence occurred between firms with different growth ambitions. 47.2% of High Growth Ambition firms were incorrectly classified compared to 26.7% for Low Ambition firms and 26.1% for No Growth Ambition businesses. Tests that were significant at the 90% level of confidence suggest that a higher proportion of Cornish based firms were successfully classified (78.9% compared to 61.9% for Devon firms). Finally, results suggest that those



firms employing greater numbers of workers at start-up are less likely to be successfully classified than those employing no workers at all. 71.4% of firms with no employees were successfully classified compared to 67.9% for those employing one worker and 41.2% for those employing two or more.

Overall, it is interesting to note that the characteristics associated with significant differences in classification success are, by and large, different for each discriminant analysis. Clearly the reasons for misclassification are numerous. Variations occur between a number of characteristics and these in turn vary between each discriminant analysis. Thus whilst prediction rates might be improved by taking into account the variables associated with differences in classification success, on a practical level the prospects for this are relatively limited simply because of the range of associations that exist.

**CHAPTER 6**  
**QUESTIONNAIRE SURVEY 2 RESULTS**

## **6.1 Introduction**

For the second questionnaire survey, 580 forms were sent to the sample group of firms. 183 of these were returned. All were completed sufficiently well to be used for analysis, giving a rate of return of 31.6%. This was surprisingly high given an assumption that some of the firms from the sample were likely to have ceased trading since the time of the first survey. The higher rate may well be a result of the more obviously policy orientated nature of the second survey and the opportunity it provides to owner-managers to express their views upon issues of clear relevance to their experiences of developing a business. An examination of response waves to test for non-response error suggested that the population inference was valid.

Again, following a preliminary examination of descriptive statistics, analysis proceeds through the application of Pearson's Chi-Squared test, cluster analysis and discriminant analysis. Primary Null-Hypotheses 4 to 10 are tested by proposing a number of more specific Secondary Null-Hypotheses.

## **6.2 Descriptive Statistics and Sample Company Profile**

### ***6.2.1 Company Characteristics, Owner-Manager Characteristics, Business Objectives and Performance Characteristics***

In order for a meaningful comparison of results to be made between the two questionnaire surveys, questions relating to company characteristics, owner-manager characteristics, business objectives and performance characteristics were in most cases identical. Since the sample was drawn from the same population for both surveys, response frequencies were by and large similar and so most are not examined here (see Appendix 3 for full Questionnaire 2 frequency tables). However, some differences in responses between the two questionnaires were

apparent. First, the time between the execution of the surveys meant that those firms responding to the second questionnaire tended to be a little older, with 43.1% aged between 25 and 36 months. A second difference was that a higher proportion of responding firms (70.1% rather than 60% in Questionnaire 1) were located in rural areas. Also, levels of educational attainment amongst respondents were generally a little lower among survey two respondents. Since the same sampling procedures were used for both surveys, it could be the case that these differences are a reflection of the nature of surviving firms.

More significant than the above differences was the lower proportion of respondents from the second survey currently employing any workers, with 48.9% employing no staff. This is most likely a result of the continuing effects of the recession during the months between the two surveys. Thus for the population of firms as a whole, it appears likely that any initial employment growth has not been sustained. The proportion of firms that had experienced employment growth was similar for both surveys, the slightly higher figure of 19.8% for the second questionnaire most likely reflecting the slightly advanced age of responding firms. This very marginal increase on the previous figure again brings into question the extent to which post start-up growth, as measured in this research, can be said to be an important or significant phenomenon.

Further important differences observed relate to the business objectives of responding owner-managers. In the case of financial objectives, a far greater 27.3% of firms in the second questionnaire aimed purely to 'get by financially', though the proportion wishing to achieve large profits was similar in both surveys (11.3% in Questionnaire 1 and 9.8% in Questionnaire 2). Further, 41.5% of Questionnaire 2 firms claimed to have no ambitions to increase employment over the next 5 years, compared to just 15.2% in the first survey. Both of these differences may be indicative of a higher degree of realism amongst owner-managers after a longer

period in business or a less optimistic view of trading conditions. Alternatively, they might suggest that those firms that previously wanted to grow have already achieved their desired employment size (which may be their minimum efficient size) and so no longer want to achieve growth. Whatever the reason for these differences, what is clear is that the longer term growth ambitions of the group of firms being examined are rather lower than the findings from the first questionnaire imply. Thus for the group of firms as a whole, it might be concluded that post start-up business growth is largely absent. Given the size of the sample used, it can be assumed that this is reflective of the population as a whole. Further, the limited growth ambitions expressed by owner-managers indicate that there is little prospect of any more significant employment growth occurring in the short to medium term future.

Given the focus of both survey questionnaires upon the importance of various factors in affecting post start-up growth, this clearly raises questions concerning the relevance and validity of many of the survey results. However, as previously stressed, the survey design enables owner-managers to comment upon the various factors in relation to their impact upon their firm's *lack* of growth as well as in relation to any actual growth that might have occurred. Therefore, the results still provide useful insights into the likely influence of factors upon a firm's growth performance, whether it be positive, negative or neutral.

### ***6.2.2 The Adequacy of Start-Up Support Provision in Addressing Factors Influencing Small Business Growth***

Table 6.1 ranks each of the factors influencing small business growth listed in Questionnaire 2 according to its mean start-up support adequacy rating for the whole group of responding businesses. For comparison purposes, associated importance rankings derived from the results of the first questionnaire survey are also given.

**Table 6.1 The Adequacy of Start-Up Support in Addressing Factors  
Influencing Growth - Rank Order**

<b>Factor</b>	<b>Paired Importance Rank</b>	<b>Adequacy Rank</b>	<b>Adequacy Mean Rating</b>	<b>Adequacy Standard Deviation</b>
Keeping Financial Records	7	1	1.90	.85
Doing Accounts & Managing Finance	8	2	1.99	.90
Doing Market Research	17	3	2.22	.83
Understanding Your Market	5	4	2.24	.92
Managing Costs	15	5	2.27	.88
Getting Business Advice	27	6	2.28	.89
Communicating With Customers	1	7	2.35	.98
Achieving Adequate Cash-Flow	4	8	2.45	.99
Marketing Products/Services	6	9	2.49	.87
Long Term Planning	14	10	2.51	.93
Setting Prices	10	11	2.67	.99
Borrowing Money	32	12	2.73	1.03
Achieving Quality Standards	9	13	2.73	1.01
Market Diversification	16	14	2.76	.88
Purchasing	25	15	2.77	.91
Managing Stock	30	16	2.79	.88
Maintaining Your Motivation	2	17	2.82	1.11
Developing New Products	21	18	2.84	.85
Getting Access to Know-How	23	19	2.86	.95
Understanding Government Regulations	36	20	2.90	1.08
Understanding Sector Specific Problems	13	21	2.93	1.06
Developing Staff Skills	22	22	2.93	.87
Retrieving Debts from Customers	12	23	2.95	1.02
Finding the Best Location	31	24	2.95	.93
Expanding Productive Capacity	18	25	2.96	.78
Developing New Methods of Production	33	26	2.97	.80
Acquiring Materials	29	27	2.97	.91
Getting Access to Networks	28	28	2.98	.89
Managing Staff	34	29	2.98	.85
Finding Suitable Premises	35	30	3.00	.88
Coping With Pressure	3	31	3.02	1.01
Generating Funds Internally	20	32	3.05	.94
Acquiring Labour	37	33	3.07	.84
Acquiring New Technology	24	34	3.07	.81
Creating a Business Culture	26	35	3.11	.93

The five most highly ranked factors in Table 6.1 suggest that respondents felt start-up support to be most adequate in addressing factors relating to financial management (Keeping Financial Records, Doing Accounts/Managing Finance, Managing Costs) and the product/service market (Doing Market Research,

Understanding Your Market). In each case, two thirds or more of the respondents felt that the factor was 'adequately' or 'very adequately' addressed. Thus in terms of dealing with what might be termed *the basics of business*, there is a relatively high degree of satisfaction with the support provided amongst owner-managers.

Not surprisingly, most OMs also felt that the subject of 'Getting Business Advice' was well covered by the start-up providers, with 67.8% reporting that it was either 'adequately' or 'very adequately' addressed. Nevertheless, a substantial minority of firms felt that this area was inadequately dealt with, suggesting that either support providers are failing in some instances to effectively communicate what after care services they provide or that the nature of the services available is too confusing for some owner-managers to comprehend.

Over half of the respondents also felt that 'Communicating with Customers', 'Long Term Planning', 'Achieving Adequate Cash Flow' and 'Marketing Products/Services' were either 'adequately' or 'very adequately' dealt with. These results again reflect the focus of start-up programmes upon basic financial management and product-market development along with the emphasis placed upon customer care and business planning, particularly in terms of developing an initial business plan.

For the remaining factors listed, less than half of the respondents felt that they had been 'adequately' or 'very adequately' addressed by start-up support. This would appear to be largely a result of the fact that for all but three of the remaining factors (Setting Prices, Borrowing Money and Maintaining Motivation), by far the largest single group of respondents chose the neutral 'neither adequate nor inadequate' option.

Interestingly, the standard deviation figures shown in Table 6.1 are rather lower overall than was the case in Table 5.1. This suggests that there is greater agreement

among owner-managers with regard to the adequacy of start-up support in addressing growth factors than was the case in relation to the importance of such factors. In order to explore the extent and nature of the differences that exist between firms in their perceptions of the adequacy of start-up support, Pearson's Chi-Squared test was again used.

### **6.3 Variations in Owner-Manager Perceptions of the Adequacy of Start-Up Support in Addressing Factors Influencing the Growth of Post Start-Up Small Firms**

Following the appropriate recoding of data, Primary Null-Hypothesis 4 was tested for each growth factor listed in Question 16 by assuming a number of Secondary Null-Hypotheses. These are outlined below:

*There exist no significant differences in the extent to which start-up support is perceived by owner-managers to adequately address the factors influencing post start-up business growth between target firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different business objectives ;
- and* iv) different performance characteristics.

The limited variation in perceptions inferred by the low standard deviation values in Table 6.1 were confirmed by the Chi-Squared tests, results from which showed that in the vast majority of cases, the Secondary Null-Hypotheses could be accepted at the 95% confidence level. In just ten instances were the associated null-hypotheses rejected. In five of these, the variable associated with significant differences in OM



perceptions of adequacy was the owner-managers prior business ownership experience (see Table 6.2 below).

**Table 6.2 Chi-Squared: Variations in Perceptions of the Adequacy of Start-Up Support in Addressing Factors Influencing Growth**

<b>Factor Influencing Growth Performance</b>	<b>Variable Associated with Difference in Adequacy</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Government Regulations	Prior Ownership	14.62	0.0056
Market Diversification	Prior Ownership	9.68	0.0462
Stock Management	Prior Ownership	18.36	0.0011
Borrowing Money	Prior Ownership	13.13	0.0107
Generating Funds Internally	Prior Ownership	9.09	0.0589
Generating Funds Internally	Other Qualification	12.93	0.0116
Generating Funds Internally	Degree	13.68	0.0084
Achieving Adequate Cash flow	O'Levels	10.43	0.0337
Communicating with Customers	Professional Qualification	9.34	0.0532
Coping with Pressure	Other Qualification	11.59	0.0207

The cross-tabulations given in Appendix 3 demonstrate that overall, OMs with prior ownership experience generally tended to view support in relation to each of the five factors listed as being slightly less adequate than did first time OMs. Two of the five growth factors for which perceptions of support adequacy vary between OMs with different ownership experience relate to funding (Borrowing Money; Generating Funds Internally) whilst the others relate to aspects of internal

management (Stock Management), market strategy (Market Diversification) and the external environment (Government Regulations). However, differences occurred largely between those selecting the 'adequate' and the 'very adequate' option or alternatively between those choosing the 'inadequate' or 'very inadequate' option. Additionally, rather fewer OMs with prior experience opted for the neutral 'neither adequate nor inadequate' response, indicating that because of the prior business experience that they have had, their opinions of start-up support are more clear cut.

The remaining five significant differences listed in Table 6.2 occur between OMs with different levels of educational attainment. An examination of the associated cross-tabulations reveals no clear patterns as to the way in which OM perceptions of support adequacy vary. In the case of OMs with 'Other' qualifications (these are largely low level, trade related certificates), the results suggest that support was perceived by these individuals to be slightly more adequate overall in addressing the issues of the internal generation of funds and dealing with pressure. Differences associated with the possession of O' levels and a degree arise largely from a greater tendency among those without such qualifications to select the neutral 'neither adequate nor inadequate' response. Conversely, a higher proportion of those with a professional qualification chose the neutral option in relation to the adequacy of start-up support in addressing communication with customers.

Whilst a small number of variations do exist between firms in their perceptions of the adequacy of start-up support, these are by no means clear in their meaning. The overall picture presented by the Chi-Squared results is one of conformity in owner-manager opinions. This conclusion is reinforced by subsequent cluster analysis results. Cluster analysis was carried out to establish whether any differences exist between those firms that tend to regard the support received as adequate in relation to all factors cited in the questionnaire and those that do not. Cases were assigned to groups on the basis of their responses to Question 16 (which asks about the

adequacy of support in addressing the various factors), again using Ward's clustering method and the Euclidean distance measurement. The dendrogram and agglomeration schedule resulting from the analysis are contained in Appendix 3. Both suggest that either a two or three cluster solution would be most appropriate for this set of data. In order to avoid the possibility of missing any variations between firms, both cluster group solutions were used in subsequent calculations.

Cross-tabulations reveal that for the two cluster solution, a greater proportion of the 28 cases in Cluster 1 tended to regard support to be 'inadequate' or 'very inadequate' in relation to any given growth factor, whilst a larger proportion of the 152 cases in Cluster 2 viewed it as either 'very adequate', 'adequate' or 'neither adequate nor inadequate'. In the three cluster solution, the 28 Cluster 1 firms again tended to regard support as being more inadequate, the 112 Cluster 2 firms generally tended to view it as 'neither adequate nor inadequate', whilst the greatest proportion of the remaining 40 cases tended to view the adequacy of support more positively. Thus overall, the three cluster solution provides a rather more accurate reflection of the spread of responses given by firms. Perhaps the most striking outcome from this solution is the very large number of owner-managers tending to choose the 'neutral' middle response option. This high degree of indifference in perceptions of support suggests that whilst most owner-managers would not say that the support received was poor, neither did it have a particularly strong positive impact upon the firm. It could also be an indication that owner-managers were less concerned about the quality of the training and guidance that they received and perhaps more concerned about other aspects, in particular the grant assistance that they were awarded.

Primary Hypothesis 4 was tested further by using Pearson's Chi-Squared to examine differences in cluster group membership. To facilitate this, the following Secondary Null-Hypotheses were assumed:

*there exist no significant differences in cluster membership between target firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different business objectives ;
- and* iv) different performance characteristics.

As Table 6.3 shows, the Secondary Null-Hypotheses were accepted in all instances but one. For both the two and three cluster solutions, significant differences occurred between clusters in the location, urban or rural, of firms.

**Table 6.3 Chi-Squared: Variations in Cluster Membership**

<b>Variable</b>	<b>Cluster Solution</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Urban/Rural	3 Cluster	6.03652	0.04889
Urban/Rural	2 Cluster	4.35858	0.03682

The cross-tabulations relating to these results (see Appendix 3) suggest that for both cluster solutions, a greater proportion of those firms in Cluster 1 are located in urban areas than is the case for other clusters. This in turn implies that a greater proportion of firms in urban locations regard the support that they received at start-up to be less adequate in addressing the factors influencing post start-up growth than was the case for firms in rural areas. The spatial nature of this variation in perception suggests a possible link between views of support adequacy and the support provider used. However, differences between support providers proved not to be significant at a 90% significance level.

Overall, results from the cluster analysis show that relatively little variation exists between OMs in their perception of the adequacy of support in addressing both

individual growth factors and in addressing factors affecting growth taken as a whole. This suggests that any discriminant model is likely to be ineffective at predicting the cluster membership of individual cases. Indeed, for the more informative three cluster solution, this proved clearly to be the case. Using the stepwise variable selection procedure, just one variable relating to the possession or otherwise of a university degree was selected for inclusion in the analysis. The classification results in Table 6.4 below show that for both the 60% of cases selected for the analysis and the 40% of firms not selected, just 25% were correctly classified. This compares poorly to what one might have expected to have been correctly classified by chance. In fact no cases were successfully identified as belonging to the largest cluster group (Cluster 2), with a very high proportion of firms belonging to Clusters 1 and 2 being wrongly classified as members of Cluster 3.

**Table 6.4 Discriminant Analysis: Support Adequacy - 3 Cluster Solution**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Degree	Canonical Correlation	0.2946
	Wilkes lambda	0.9132
	Eigenvalue	0.0951
	Chi-square	9.081
	Significance Level	0.0107

<b>Selected Cases</b>				
Actual Group	No. of Cases	Predicted Cluster		
		1	2	3
1	14	42.9%	0%	57.1%
2	75	18.7%	0%	81.3%
3	23	4.3%	0%	95.7%
Ungrouped	1	0%	0%	100%
% Correctly Classified				25.0%
<b>Non-Selected Cases</b>				
Actual Group	No. of Cases	Predicted Cluster		
		1	2	3
1	14	7.1%	0%	92.9%
2	37	16.2%	0%	83.8%
3	17	5.9%	0%	94.1%
Ungrouped	2	50%	0%	50%
% Correctly Classified				25.0%

Rather more success is achieved in predicting case membership of clusters in the two cluster solution. As Table 6.5 shows, three variables were included for analysis following stepwise selection.

**Table 6.5 Discriminant Analysis: Support Adequacy - 2 Cluster Solution**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
A Levels	Canonical Correlation	0.4189
BTEC	Wilkes lambda	0.8245
Urban/Rural	Eigenvalue	0.2128
	Chi-square	19.198
	Significance Level	0.0002

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	14	64.3%	35.7%
2	94	27.7%	72.3%
Ungrouped	1	0%	100%
% Correctly Classified			71.3%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	14	21.4%	78.6%
2	52	26.9%	73.1%
Ungrouped	2	100%	0%
% Correctly Classified			62.12%

Whilst overall the proportion of successfully classified cases is relatively high for both selected and non-selected cases, the proportion of cases in Cluster 1 which were correctly classified falls dramatically for the 40% of non selected cases. What is more, the two cluster solution used in the analysis is rather less reflective of the true distribution of responses as it less accurately distinguishes between those OMs who tended to feel that start-up support was 'adequate' or 'very adequate' and those who tended to give a neutral, mid-scale response. Further, and as is also the case

with results relating to the three cluster solution, some accuracy is likely to be lost due to the low absolute number of cases in Cluster 1. Thus whilst variables relating to both the location of a firm and the qualifications of its OM have some predictive power in relation to perceptions of the adequacy of start-up support in addressing factors influencing business growth, this is limited, particularly in the case of the three cluster solution.

Table 6.6 below highlights some possible reasons for the misclassification of cases by showing the test results for the following Secondary Null-Hypotheses:

*there exist no significant differences in the success of case classification between firms with*

- i) different company characteristics;
- ii) different owner-manager characteristics;
- iii) different business objectives ;
- and* iv) different performance characteristics.

**Table 6.6 Chi-Squared: Differences in Classification Success - 2 and 3 Cluster Solutions**

<b>Variable</b>	<b>Cluster Solution</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Professional Qualification	3 Cluster	7.38108	0.00659
Other Qualification	3 Cluster	5.85012	0.01558
Industrial Sector	2 Cluster	6.64498	0.08412
Company Age	2 Cluster	7.41337	0.05983
Qualifications (yes/no)	2 Cluster	3.96944	0.04633
O Levels	2 Cluster	4.92936	0.02640
A Levels	2 Cluster	52.31333	0.00000
Degree	2 Cluster	12.44509	0.00042



The two variables associated with results where the associated null-hypothesis was rejected for the three cluster solution both relate to the OMs possession of particular educational qualifications. The same is also true of many of the significant differences for the two cluster solution. The greatest value of Chi-Squared is associated with the possession or otherwise of A' levels. Here, the results given in Appendix 3 suggest that those with A' levels are less likely to be successfully classified than those without. The same is also true to a slightly lesser extent for O' levels/GCSEs, degrees and professional qualifications. Conversely, a higher proportion of firms whose OMs possessed no qualifications or had 'Other' qualifications (largely low level trade certificates) were correctly classified. This suggests a greater level of variability in responses amongst OMs with higher formal academic or professional qualifications.

One other difference between successfully and unsuccessfully classified cases that comes very close to being significant at the 5% level of significance is in the age of firms. As shown in Appendix 3, a much higher proportion of firms aged over 12 months is correctly classified whilst 62.5% of the few firms aged less than 13 months are incorrectly classified, suggesting that greater levels of homogeneity in opinion with regard to the adequacy of start-up support are only arrived at after OMs have gained at least a years experience in business. This makes sense on an intuitive level because support adequacy can only be judged in relation to ones current understanding of the requirements of a business and this in turn is likely to become more clearly defined over time. Thus it is easier to predict cluster membership for older firms because they possess a firmer understanding of their business needs.

Significant differences in the success of classification also exist between the industrial sector of firms, though only at a 10% level of significance. Though differences are not huge, the results in Appendix 3 show that manufacturing and

retail firms are more likely to be correctly classified than those in the service sector or the 'Other' category. Overall therefore, it would appear that the ability of the discriminant functions to successfully classify cases is diminished where OMs possess higher level academic or professional qualifications or, in the case of the two cluster solution (and at a 10% significance level), where firms are less than 13 months old or are not in the retail or manufacturing sectors.

#### 6.4 Inter-Survey Comparisons

Primary Null-Hypothesis 4 was also tested by comparing results concerning the importance of factors in affecting growth from Questionnaire One to those concerning the adequacy of support in addressing these factors from Questionnaire Two. In this way, the adequacy of support could be assessed in relation to the importance of each factor. This was achieved by merging the SPSS data files relating to the two questionnaires and examining differences between related results from the two surveys. An initial comparison of differences in the rank order of factors affecting growth indicates that mismatches do exist between the importance of particular factors and the ability of start-up support to address them (see Table 6.1). This is demonstrated by a Spearman's Correlation coefficient of 0.5373 (significance 0.001) which shows that whilst some correlation does exist between the two ranks, it is not particularly strong. However, this result only highlights differences in the relative order of factors and does not show clearly the extent and nature of differences in the importance of a particular factor in affecting growth as compared to the extent to which start-up support adequately addresses it. To clarify the nature of any such 'gaps', Pearson's Chi-Squared test was used to examine differences in the importance and adequacy ratings given in relation to 'paired' factors from Questionnaire One and Questionnaire Two (for instance, the *importance to growth* of the OM's 'Ability to Carry Out Market Research' (Questionnaire One) compared to the *adequacy of start-up support* in relation to

'Carrying Out Market Research' (Questionnaire Two)). For each pair of factors, the following Secondary Null-Hypothesis was therefore proposed:

*there exist no significant differences in the Likert scale ratings of factors, in terms of their importance and the ability of start-up support to address them, between Questionnaire One and Questionnaire Two*

In the case of just two factors - 'Ability to Keep Financial Records' and 'Ability to Manage Accounts and Finance' - was this null-hypothesis accepted. This suggests that in these two areas, no major gaps exist between the importance attached to the factors by OMs in relation to their influence upon growth and the adequacy of support provided through start-up in addressing them. This is a reflection of the emphasis placed upon aspects of financial management and record keeping by start-up courses. However, for the remaining 33 factors, significant differences were observed and so the null-hypothesis was rejected. Table 6.7 summarises the significant Chi-Squared test results recorded.

**Table 6.7 Chi-Squared: Variations Between Surveys: 'The Importance-Adequacy Support Gap'**

<b>Paired Variables</b>		<b>Pearson's Chi Squared</b>	<b>Significance</b>	<b>Support Gap</b>
<i>Importance</i>	<i>Adequacy</i>			
Availability of Suitable Labour	Acquiring Labour	56.18152	0.00000	+
Availability of Materials	Acquiring Materials	69.58361	0.00000	*
Availability of Suitable Premises	Finding Suitable Premises	50.24261	0.00000	*
Planning Restrictions	Understanding Regulations (eg planning)	34.72070	0.00000	+
Company Location	Finding the Best Location	23.72528	0.00009	*
Speed of Debt Payment by Customers	Retrieving Debts from Customers	85.42771	0.00000	-
Price of Competing Products	Setting Prices for Products	35.52840	0.00000	-
Quality of Competing Products	Achieving Quality Standards	50.33619	0.00000	-
Sector Specific Problems	Understanding Sector Specific Problems	45.13910	0.00000	-
Market Research Ability	Carrying Out Market Research	9.94520	0.04136	+
Marketing Ability	Marketing Products	49.63174	0.00000	-
Ability to Develop New Products	Developing New Products	41.47311	0.00000	-
Ability to Develop New Methods of Production	Developing New Methods of Production	42.00581	0.00000	*
Ability to Enter New Markets	Entering New Markets	39.62346	0.00000	-
Ability to Manage Stock	Managing Stock	30.11062	0.00000	*
Purchasing Ability	Purchasing	41.71762	0.00000	*
Ability to Plan for Long Term	Planning for Long Term	12.36348	0.01484	-
Market Knowledge	Understanding Your Market	45.85343	0.00000	-
Ability to Manage Staff	Managing Staff	34.90381	0.00000	*
Ability to Communicate with Customers	Communicating with Customers	153.27278	0.00000	-
Ability to Borrow from Lenders	Borrowing Money	12.95587	0.01149	+
Ability to Generate Funds Internally	Generating Funds Internally	52.86426	0.00000	-
Level of Cash flow	Achieving Adequate Cash flow	87.37683	0.00000	-
Levels of Fixed Costs	Managing Costs	9.92971	0.04163	+
Productive Capacity	Expanding Productive Capacity	83.86276	0.00000	-
Staff Skills	Developing Staff Skills	89.90219	0.00000	-
Access to Networks	Getting Access to Networks	20.78937	0.00035	-
Access to Advisors	Gaining Access to Advice	23.73564	0.00009	+
Access to Know-How	Gaining Access to Know-How	12.80860	0.01225	-
Access to New Technology	Gaining Access to New Technology	48.13186	0.00000	-
Ability to Cope with Pressure	Coping with Pressure	180.37951	0.00000	-
OM Drive	Maintaining Motivation	147.69202	0.00000	-
Corporate Culture	Creating a Business Culture	39.71178	0.00000	-

An examination of associated cross-tabulations (see Appendix 3) shows that in the majority of cases, the proportion of firms that perceive a factor to be either 'important' or 'very important' (that is who give a high importance rating in Questionnaire One) is greater than the proportion that feel start-up support 'adequately' or 'very adequately' addresses that factor (i.e. who give a high adequacy rating in Questionnaire 2). Conversely, the proportion that feel that a factor is either 'unimportant' or 'very unimportant' is lower than is the case for those who perceive support to have been 'inadequate' or 'very inadequate'. Thus for these factors, the results suggest that the level of adequacy of start-up support is not sufficient in relation to the importance attached to them in terms of their influence upon business growth. Those factors which are insufficiently addressed in this way and for which a 'Negative Support Gap' therefore exists are denoted by "-" in Table 6.7.

A smaller number of factors affecting small firm growth are shown by the Chi-Square results to be more than sufficiently addressed in relation to their importance. Those factors for which a 'Positive Support Gap' can be said to exist are denoted "+" in Table 6.7. For a number of other factors, clear patterns in the differences observed are less obvious. In each of these cases, whilst on the one hand a greater proportion of owner-managers felt the factor to be either 'important' or 'very important' than support was 'adequate' or 'very adequate', on the other, a greater proportion also felt the factor to be more 'unimportant' or 'very unimportant' than support was 'inadequate' or 'very inadequate'. Such results reflect both the high proportion of OMs selecting the 'neither adequate nor inadequate' option in relation to start-up support for these factors and the rather more 'U' shaped distribution of responses relating to their importance in affecting growth. Factors which fall into this category of less clear significant differences are denoted "#" in Table 6.7.

An examination of those instances where a clear 'Positive Support Gap' exists suggests that in the case of two paired factors - 'Ability to Find Suitable

Labour/Finding Suitable Labour' and 'Planning Restrictions/Understanding Government Regulations (eg Planning Restrictions)' - the observed gap is largely a result of the high proportion of OMs who perceive them to be either 'unimportant' or 'very unimportant'. In the remaining instances, the gaps appear to result more from the high proportion of firms having a positive view of support adequacy. This is particularly so for 'Ability to Carry Out Market Research/Doing Market Research' and 'Access to Advice/ Gaining Access to Advisors'. Given the emphasis placed upon market research in start-up courses and the fact that support providers have a clear interest in developing a firm's awareness of the support services they offer, neither of these results is particularly surprising. The more marginal 'Positive Support Gaps' associated with 'Ability to Borrow Money from Lenders/Borrowing Money from Lenders' and 'Ability to Manage Fixed Costs/Managing Costs' are further reflections of the emphasis placed upon aspects of financial management during start-up programmes.

In the majority of instances, support gaps were negative - that is, the adequacy of support did not match up to the importance attached to individual growth factors. Among the greatest differences observed were those associated with owner-manager related paired factors such as 'Ability to Cope with Pressure/Coping with Pressure' and 'OM Drive/Maintaining Motivation'. This strongly suggests that support inadequacies exist in the area of the OM's personal development.

A number of other factors associated with 'Negative Support Gaps' are clearly strategic in nature or relate to product/market development ('Ability to Plan for the Long Term/Planning for the Long Term'; 'Ability to Develop New Markets for Products/Moving into New Markets'; 'Ability to Develop New Products or Services/Developing New Products or Services'; 'The Price of Competing Products or Services/Setting Prices'; 'The Quality of Competing Products or Services/Achieving Quality Standards'). Further groups relate to access to tangible

and intangible resources such as networks, know-how and new technology, marketing and developing market knowledge and further aspects of financial management, including debt recovery and management. Large 'Negative Support Gaps' also exist in relation to 'Ability to Communicate with Customers/Communicating with Customers' and 'Productive Capacity of the Firm/Expanding Productive Capacity'. Others are associated with developing a corporate culture and sector specific problems.

Overall, 'Negative Support Gaps' exist in relation to a wide range of paired factors. Groups of factors include those relating to the OM him or herself, a firms strategic and product/market development, its access to tangible and intangible resources, marketing and financial management. A comparison of these factors with those for which a 'Positive Support Gap' exists or for which no significant differences were found suggests that whilst start-up support is sufficiently adequate (or more than adequate) in addressing the more basic aspects of developing a young business (for instance understanding government regulations, basic financial management and record keeping and carrying out market research), more advanced or specific skills and issues are rather less adequately addressed in relation to their importance as factors affecting growth in the period 12 to 36 months after start-up.

The use of discriminant analysis to classify firms into those responding to Questionnaire 1 and those responding to Questionnaire 2 on the basis of the Likert scale ratings chosen for each pair of factors demonstrates the size of the 'gap' between the importance of factors in affecting growth and the adequacy of start-up support in addressing them. Using the stepwise procedure, twelve variables were selected for inclusion in the analysis. These, along with the classification results, are presented in Table 6.8.

**Table 6.8 Discriminant Analysis: 'The Importance-Adequacy Support Gap'**

<b>Variables Selected by Stepwise Procedure</b>	<b>Statistical Results</b>	
Coping with Pressure	Canonical Correlation	0.8413
Government Regulations (planning)	Wilkes lambda	0.2923
Communicating with Customers	Eigenvalue	2.4213
Finding Suitable Labour	Chi-square	234.94
Generating Funds Internally	Significance Level	0.0000
Costs		
Debt Payment		
Market Diversification		
Access to Advice		
Staff Skills		
Borrowing from Lenders		
Cash flow		

<b>Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	108	94.4%	5.6%
2	94	6.4%	93.6%
Ungrouped	0	0%	0%
% Correctly Classified			94.01%
<b>Non-Selected Cases</b>			
Actual Group	No. of Cases	Predicted Cluster	
		1	2
1	69	92.8%	7.2%
2	71	1.4%	98.6%
Ungrouped	2	100%	0%
% Correctly Classified			95.71%

The table shows that for the 60% of cases selected for use in the analysis, 94.01% were correctly classified. For those 40% not included, an even greater 95.71% were correctly classified. No significant differences were found to exist in classification success between firms with different characteristics, showing that the considerable



predictive power of the discriminant function is maintained no matter what the distinguishing characteristics of the firms being classified might be. In other words, there was much similarity amongst firms in relation to their responses showing that, for most paired factors, significant support gaps exist.

## **6.5 Further Support: Awareness and Use**

The analysis above has shown that with respect to a number of factors, a gap exists between their importance in affecting early post start-up firm growth and the ability of start-up support to address them. Given that start-up support is clearly not addressing these growth factors, the importance of understanding whether or not any further forms of business support available to small firms, both public and private, play a role in filling the support gaps identified becomes apparent. Thus an additional section of the second questionnaire deals with small business owner-manager's awareness, use and experience of support other than that provided through start-up courses. Firms were also asked with which support provider they undertook their start-up training. As shown in Appendix 3, the response rates from firms supported by different providers varied. This most likely reflects the varying extent to which data-base records for the different providers were up to date with regard to those companies that had ceased trading at the time that the sample was drawn or perhaps subsequent spatial variations in survival rates. To aid statistical analysis, the relatively small number of responses from firms receiving support from Ultra Training were combined with those in the 'Don't Know' category.

The response frequencies in Appendix 3 reveal a mixed picture of owner-manager awareness of current and past TEC coordinated schemes and initiatives. A substantial 21.9% of respondents had not heard of any of the programmes listed. However, 59% were aware of the Business Advisory Service (BAS) which offers a limited free counselling service available to post start-up firms and which as such

also acts as a gateway to more specific types of support. At the time of the survey (October-November 1994), awareness of Business Link, which has taken on the role of 'one-stop-shop' for SME advice and information, was relatively low at 12%. However, most Business Links in the two counties were still in a developmental stage during this period.

Of the remaining initiatives listed in the questionnaire, the highest levels of awareness were associated with the DCTEC Development Fund (28.4%), Workstart (20.8%), the DCTEC Information Point (19.1%) and Business Development Consultancy (10.4%). Less than 10% of respondents were aware of each of the other schemes and initiatives.

Whilst some awareness amongst small firm OMs of certain TEC coordinated schemes and initiatives did exist, their use by firms that had completed a start-up programme in the last three years was very limited, as shown in Table 6.9.

**Table 6.9 Use of Further Support and Type of Support Used**

<b>Use of Further Support</b>	<b>Percent</b>
Yes	9.8
No	90.2
<b>Type of Support Used</b>	<b>Percent</b>
BAS	53.3
Workforce	6.7
Workstart	6.7
Second Step	6.7
Business Focus	6.7
Employer Visits	13.3
Relocation	6.7

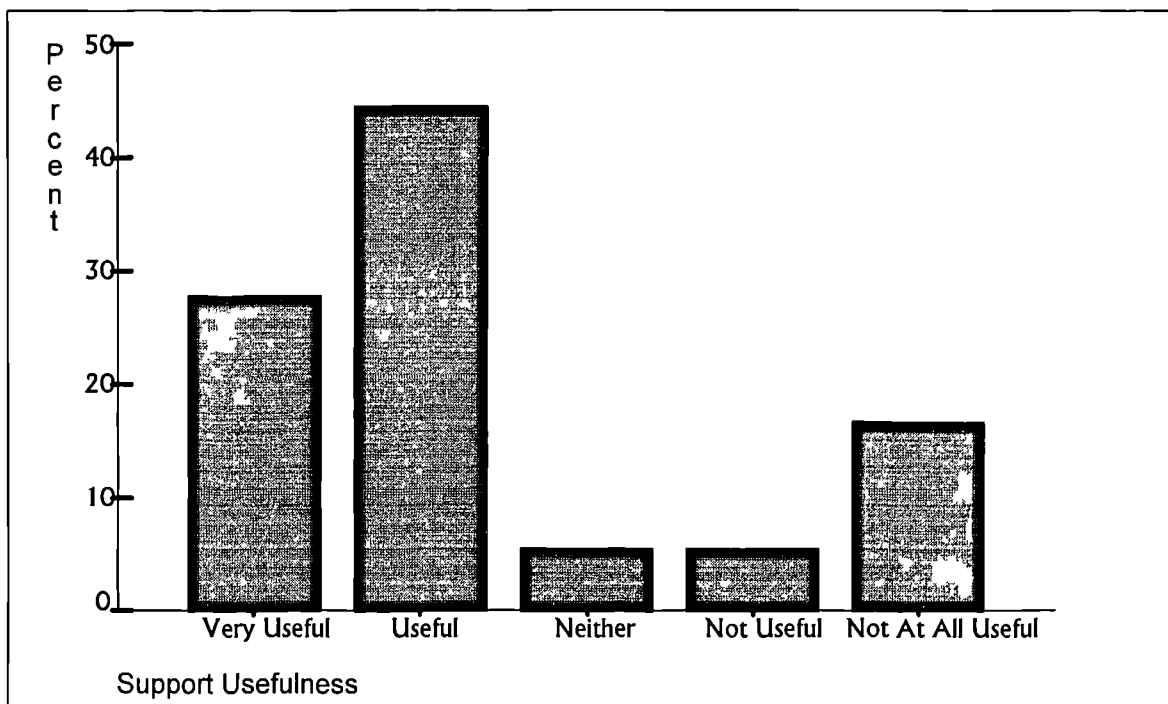
The table also reveals that the majority of firms using further assistance used BAS.

Table 6.10 shows the reasons for the use of further support given by respondents and Figure 6.1 the perceived usefulness of the support received. The former reveals that the single most important objective in seeking support is to aid growth whilst the latter shows that nearly three quarters of those using support found it to be useful in helping them to achieve their objective.

**Table 6.10 Reasons for Further Support Use**

Reason For Support Use	Percent
To Overcome a Particular Operational Problem	17.6
To Aid Growth	41.2
For Training Support/Advice	17.6
Other	23.5

**Figure 6.1 Usefulness of Further Support in Addressing the Reason for its Use**



Turning to those post start-up firms that had not made use of any of the other support services available through the TEC and its providers, a wide range of reasons for this non-use are given (see Table 6.11). The most important of these would appear to be a perceived lack of problems or any need for support. A further 11.5% felt that start-up support was sufficient for their needs. The perceived quality

and cost of support and a lack of time or of any desire for growth seem not to be major barriers to support use, though a lack of awareness of support does appear to be a more important factor with 10.9% of firms choosing this as a reason. A significant minority of firms did not use TEC coordinated support because they sought advice from other sources. Finally, 29.1% of firms were placed in the 'Other' category, largely because they were unable to isolate just one reason for not using support.

**Table 6.11 Reasons for Non-Use of Further Support**

<b>Reason for Non-Use</b>	<b>Percent</b>
Used Other Sources	10.9
Poor Opinion of Support Available	4.8
No Problems/Need for Support	26.1
Start-Up Support Sufficient for Needs	11.5
Not Aware of Support	10.9
Cost of Support	0.6
Not Enough Time	5.5
No Desire to Grow	0.6
Other	29.1

A final set of closed response questions related to the owner-managers use of other types of support, not directly associated with the TEC (see Table 6.12).

**Table 6.12 Use of Non-Devon and Cornwall TEC Support and Advice**

<b>Source of Support/Advice</b>	<b>Percentage of Owner-Managers Using Source</b>
Bank	43.2
Rural Development Commission	1.1
Friends/Networks	54.6
Accountant	40.4
Princes Trust	3.3
DTI Consultancy Initiative	0.5
Other	10.9
None	15.8

43.2% of firms used their bank as a source of business advice and 40.4% made use of their accountant. Over half also gleaned advice from friends or networks. Use of support from the Rural Development Commission, The Princes Trust, the DTI and other sources was relatively limited whilst 15.8% of responding firms claimed to have received no support or advice from any such quarters.

#### **6.6 Further Support: Variations in Awareness and Use**

In order to examine variations relating to the use of further support, Primary Null-Hypotheses 5, 6, 7, 8, 9 and 10 were tested. Primary Null-Hypothesis 5 states that there exist no significant differences in OM awareness of further TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall. In order to test this null-hypothesis, six more specific Secondary Null-Hypotheses were proposed:

*there exist no significant differences in OM awareness of further TEC coordinated support between target firms*

- i) with different perceptions of start-up support adequacy;
- ii) with different company characteristics;
- iii) with different owner-manager characteristics;
- iv) with different performance characteristics;
- v) with different business objectives;
- and* vi) that used different start-up providers .

These null-hypotheses were tested in relation to each of the programmes and initiatives listed in Question 18. Results from Pearson's Chi-Squared test showed that whilst Secondary Null-Hypothesis 5(vi) could be accepted, in a small number of cases the remaining hypotheses were rejected. Significant test results are listed in Table 6.13.

**Table 6.13 Chi-Squared: Variations in Awareness**

<b>Support Scheme</b>	<b>Variable Associated with Difference in Awareness</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
<i>Perceptions of Start-Up Adequacy</i>			
BAS	2 Cluster Solution	3.78	0.052
BAS	Getting Advice	10.52	0.032
BAS	Communicating with Customers	9.90	0.042
BAS	Long Term Planning	8.72	0.069
DCTEC Development Fund	Market Diversification	8.60	0.072
None	Maintaining Motivation	8.08	0.089
<i>Characteristics</i>			
Workstart	Profit Performance	11.54	0.021
DCTEC Information Point	OM Age	8.14	0.087
DCTEC Information Point	OM Sex	4.42	0.036
DCTEC Information Point	County Location	2.78	0.096
DCTEC Information Point	Degree	5.79	0.016
DCTEC Information Point	Ownership	3.95	0.047
Investors in People	O Levels	3.26	0.071
Business Link	Previous Occupation	16.38	0.003
BAS	Ownership	3.59	0.058
Second Step	Growth Ambitions	8.22	0.016



An examination of cross-tabulations (see Appendix 3) reveals that for those significant differences associated with perceptions of start-up adequacy, in each instance, to a greater or lesser degree, a higher proportion of those OMs who were of the opinion that support was 'adequate' or 'very adequate' in addressing a particular factor are likely to be aware of a particular programme (and are less likely to be aware of none) than those who felt support to be inadequate. Perceptions of adequacy in what might be regarded as fairly general areas of concern (Getting Business Advice, Communicating with Customers, Long Term Planning) are associated with a greater level of awareness of the broad 'signpost' Business Advisory Service. Perceptions of adequacy for the more specific issue of Market Diversification are associated with higher levels of awareness of the DCTEC Development Fund. This suggests that an introduction to the fund might have featured in programmes that were perceived to have addressed this subject most successfully. Finally, the results show that OMs who perceived start-up support to be more adequate in addressing motivational issues are less likely to be aware of no further support at all. This would tend to support the argument that an approach to support which makes a positive effort to help develop the individual owner-manager's personal drive and motivation might contribute to higher levels of awareness of other forms of support that might be available. This is perhaps because such an approach makes owner-managers become enthused to proactively seek out potential sources of support.

Of the other characteristics associated with differences in awareness of individual schemes and initiatives, most relate to the owner-manager. The greatest value of Chi-Squared is associated with differences in awareness of Business Link between OMs with varying previous occupations. Results show that a greater proportion of ex-employees from firms not within the same sector as the OM's current business are aware of Business Link. Conversely, a greater proportion of those who were unemployed, self-employed or within the 'Other' category (for instance those

previously in full-time education or carrying out voluntary work) were unaware of the initiative. Whilst a lack of awareness among those individuals who were previously outside the world of work is understandable, the relative lack of awareness among those who were previously self-employed is surprising, even given that Business Link is a relatively recent development. The higher level of awareness among ex-employees suggests that awareness of Business Link may be greater among larger, more established companies than smaller ones. This is reflective of a targeting policy which focuses primarily upon small firms with more than ten employees.

Other OM characteristics are associated with differences in awareness of the DCTEC Information Points, with a greater proportion of older OMs, male owners and owners without degree qualifications being aware of these access points. The same is also true of companies located in Devon and those that are not owned as sole traderships. Similarly, a greater proportion of sole traders are unaware of the Business Advisory Service than is the case for businesses with other forms of ownership, suggesting that shared ownership is conducive to higher levels of support awareness. Alternatively, it could be the case that such firms have a greater need for support and that it is this need that leads to awareness.

Just as overall levels of awareness were greater for broad 'gateway' or 'signpost' services than for specific schemes, most significant variations in awareness occurred in relation to these services. These differences highlight those groups of people for whom awareness must be improved if a one-stop-shop approach is to be effective in serving the needs of all small business people running young post start-up firms. Of the remaining three significant results, two suggest that awareness of more specific schemes is associated with differences in either the objectives or the performance of a firm. For instance, awareness of the now defunct Second Step scheme, which provided transitional funding to help take on a first employee, is greater amongst

firms with higher growth ambitions. This demonstrates that the existence of particular objectives or performance outcomes is associated with a greater awareness of schemes of a specific nature where they are of direct relevance to such objectives or outcomes. In other words, need produces awareness, presumably through the proactive efforts of firms themselves.

The second Primary Null-Hypothesis relating to the use of further support by post start-up young firms, Primary Null-Hypothesis 6, states that there exist no significant differences in OM use of further TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall. Seven more specific Secondary Null-Hypotheses were proposed for testing:

*there exist no significant differences in owner-manager use of further TEC coordinated support between target firms*

- i) with different perceptions of start-up support adequacy;
- ii) with different company characteristics;
- iii) with different owner-manager characteristics;
- iv) with different performance characteristics;
- v) with different business objectives;
- vi) that used different start-up providers ;
- and* vii) with different levels of awareness of support.

As Table 6.14 below shows, just one valid significant difference in further support use was identified.

**Table 6.14 Chi-Squared: Variations in the Use of Further Support**

<b>Variable Associated with Difference in Use</b>	<b>Pearson's Chi-Squared</b>	<b>Significance</b>
Awareness of BAS	4.8	0.027

An examination of the relevant cross-tabulation shows that 13.9% of firms that were aware of BAS used some form of further support compared to 4.0% of firms that were not aware of the service. However, what this finding does not clarify is whether support use is a function of support awareness or whether awareness is in fact purely a result of the use of support or, more likely, the need to use it. Nevertheless, it would be logical to presume that awareness must come before use and as such is a precondition for it, if not necessarily a cause.

Other than in the case of the above factor, all null-hypotheses were accepted. This was largely due to the low number of instances of further support use, resulting in a low observed frequency in many cross-tabulation cells. It is nevertheless interesting to note some observations from the non-valid significant differences resulting from the Chi-Squared analysis. First, in relation to differences in support use between OMs with different perceptions of start-up support adequacy, results suggest that in a number of cases, a larger proportion of those OMs who perceive start-up support to have been inadequate used further TEC coordinated support than was the case for those perceiving support to have been adequate. Whilst further research using larger samples would have to be carried out in order to verify these results, initial analysis implies that whilst on the one hand OM perceptions of inadequacy regarding the ability start-up support to address certain factors influencing growth are positively associated with the use of further support, on the other hand (and as shown through the testing of Secondary Null-Hypothesis 5(i)) they are also associated with lower levels of awareness regarding further support. Thus it could be argued that OMs

who perceive that the start-up support that they have received was inadequate in addressing growth factors respond to this inadequacy in one of two ways. They either seek to remedy any inadequacies by making greater use of further support or, as a result of their unsatisfactory experience of support, they blind themselves to what further support is available, resulting in lower levels of awareness.

Two further non-valid significant differences in the use of further TEC coordinated support were observed, both associated with company characteristics. Whilst again further research using larger samples would be required to confirm the validity of these results, they suggest that a higher proportion of those firms using further support were non-sole trader firms and older firms. The latter observation is perhaps not surprising (the longer a firm has existed, the greater the chance that it has used further support) whilst the former tallies with the higher levels of awareness of further support among firms owned as partnerships or limited companies. The lack of any significant difference in support use between firms of different employment size suggests that the reasons for this may instead relate to the specific needs or problems associated with either being or becoming a partnership or a limited company and for which support may therefore be needed by some businesses.

Primary Null-Hypothesis 7 proposes that there are no significant differences in the reasons for the use of further TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall. Seven more specific Secondary Null-Hypotheses were proposed:

*there exist no significant differences in the reasons for the use of further TEC coordinated support between target firms*

- i) with different perceptions of start-up support adequacy;
- ii) with different company characteristics;
- iii) with different owner-manager characteristics;
- iv) with different performance characteristics;
- v) with different business objectives;
- vi) that used different start-up providers ;
- and* vii) that used different types of support.

Because of the very low number of firms using further TEC coordinated support, Chi-Squared test results gave rise to no valid significant differences and therefore each of the above null-hypotheses was accepted. Nevertheless, some tentative associations can be inferred from non-valid significant differences observed.

In relation to differences between firms with varying perceptions of start-up support adequacy, an examination of cross-tabulations shows that 100% of firms in Cluster 1 of the two cluster solution (that is, firms tending to perceive start-up support to be inadequate in addressing factors influencing growth) used further support in order to aid growth. Similarly, a greater proportion of OMs who perceived start-up support to be inadequate in addressing two further factors - 'Finding Suitable Premises' and 'Finding the Best Location' - used support to aid growth. It is interesting that both of these factors have spatial associations, particularly since differences between firms in urban and rural areas also exist. 75% of urban firms seeking further support did so to aid growth, compared to 11.1% of rural firms. Given that earlier results showed that a significantly greater proportion of Cluster 1 firms (for both the two and three cluster solutions) were located in urban areas, this may suggest that the greater levels of dissatisfaction with start-up support in terms of its ability to address

growth factors observed amongst urban firms leads to a greater proportion of them subsequently using further support in order to aid growth.

Rather less clear patterns emerge from the cross-tabulations relating to the two other non-valid observations. Those OMs with qualifications appear to use support for a range of reasons, including 46% to aid growth, whereas those with none all state 'Other' reasons. Meanwhile, a greater proportion of those who felt start-up support to be 'adequate' or 'very adequate' in relation to 'Doing Accounts and Managing Finance' used support to aid growth.

Primary Null-Hypothesis 8 states that there exist no significant differences in the reasons for the non-use of TEC coordinated support between post start-up firms aged 12 to 36 months in Devon and Cornwall. Six Secondary Null-Hypotheses were again proposed for testing:

*there exist no significant differences in the reasons for the non-use of further TEC coordinated support between target firms*

- i) with different perceptions of start-up support adequacy;
- ii) with different company characteristics;
- iii) with different owner-manager characteristics;
- iv) with different performance characteristics;
- v) with different business objectives;
- and* vi) that used different start-up providers .

Because of the wide range of reasons for the non-use of support given and the limited potential for meaningful recoding of data, none of the observed significant differences were statistically valid and so again each of the Secondary Null-Hypotheses were accepted. However, again a number of the non-valid differences

observed suggest that strong associations may exist, although further research would be required to verify them.

Cross-tabulations show that differences in the reasons for the non-use of support are broadly similar between OMs with different views of the adequacy of start-up support in addressing the factors listed in the table. In each case, a greater proportion of those who felt that support was 'inadequate' or 'very inadequate' stated what might be broadly termed negative reasons for their non-use of further support - for instance their poor opinion of support available or their lack of awareness of support. Conversely, more positive reasons (such as the use of other sources of support, a lack of problems and a view that start-up support was sufficient for the firms needs) were given by a greater proportion of OMs perceiving start-up support to have been 'adequate' or 'very adequate'. Such patterns are logically consistent in as much as the reasons given tend to reflect their views regarding the adequacy of start-up support. However, the tendency for a greater proportion of those who viewed support to have been inadequate to state as a reason for non-use of further support their poor opinion of support available sits less comfortably with earlier tentative findings suggesting that the use of further support is in fact linked to perceptions of inadequacy in start-up support. This perhaps reinforces the argument that different OMs react in different ways to their perceptions of support inadequacy. Whilst a small number seek to address the problem through making use of further support, others choose to ignore it (thus becoming unaware of the services available) and not to make use of it.

Reasons for non-use of further TEC support also varied between firms with different OM characteristics and business objectives. In a result which came very close to statistical validity (21.4% of cells with an observed frequency less than 5), a far greater proportion of males (32.8%) were shown to state 'No Problems/Lack of Need for Support' as a reason for non-use than females (10.6%), a greater proportion



of whom stated 'Other' reasons (included in this category were those who selected a combination of reasons). Whether this reflects a genuine lack of problems among male owned small firms or a greater tendency for men to deny that problems exist is more difficult to assess.

Differences between firms with varying experiences of employment growth show that a lower proportion of growth firms chose 'Start-Up Support Sufficient For Needs' as a reason for the non-use of support (3.3%) than did firms that remained static in employment terms (12.7%) whilst a higher proportion selected 'Not Enough Time' (16.7% as opposed to 3% for static or declining firms). This appears to mean that whilst on the one hand growing businesses are likely to need support beyond that which is available at start-up, on the other, many are unable to satisfy this need because of the time constraints that they face due to their growth. In other words, they are caught in something of a Catch-22 situation. With regard to variations in the reasons for the non-use of support between OMs stating different levels of satisfaction with their profit performance, a different picture emerges. As with perceptions of start-up adequacy, a greater proportion of OMs who were satisfied with their profit performance predictably selected 'No Problems/Lack of Need' as a reason for non-use whilst 'Not Enough Time' and 'A Poor Opinion of Support Available' are chosen by a greater proportion of firms that were not satisfied.

Primary Null-Hypothesis 9 proposes that there exist no significant differences in OM perceptions of the usefulness of further TEC coordinated support used between post start-up firms aged 12 to 36 months in Devon and Cornwall. Eight more specific Secondary Null-Hypotheses were also proposed:

*there exist no significant differences in OM perceptions of the usefulness of further TEC coordinated support used between target firms with*

- i) with different perceptions of start-up support adequacy;
- ii) with different company characteristics;
- iii) with different owner-manager characteristics;
- iv) with different performance characteristics;
- v) with different business objectives;
- vi) that used different start-up providers ;
- vii) that used different types of support;
- and* viii) with different reasons for seeking support.

Once again, due to the low absolute number of firms using further support, no valid significant differences were recorded and so all Secondary Null-Hypotheses were accepted. However, a small number of non-valid significant differences were found to exist.

An examination of cross-tabulations associated with the non-valid differences observed revealed no clear patterns in most cases (see Appendix 3). One exception relates to differences in perceived usefulness between firms from different industrial sectors. This showed that 100% of manufacturing firms that had used further support found it to be 'very useful' whereas firms from other sectors exhibited far greater variation in their opinions. However again, without a larger sample size, it is not possible to say whether this difference is true of the whole target firm population or is simply a result of the low response frequency for this particular question.

The final Primary Null-Hypothesis relating to the use of further support states that there exist no significant differences in the use of non-TEC coordinated sources of support and advice between firms within the target population. The sources of

advice about which the responding firms were asked were banks, The Rural Development Commission, friends and networks, accountants, The Princes Trust and The DTI Consultancy Initiative. Firms were also asked to list any other sources used. In the case of each source of support, Secondary Null-Hypotheses were proposed to test for differences between firms-

- i) with different perceptions of start-up support adequacy;
- ii) with different company characteristics;
- iii) with different owner-manager characteristics;
- iv) with different performance characteristics;
- v) with different business objectives;
- and* vi) that used different start-up providers .

Chi-Squared test results show that whilst Secondary Null-Hypotheses 10(v) and 10(vi) could be accepted, a number of other significant differences were observed leading to the other null-hypotheses being rejected (see Table 6.15).

**Table 6.15 Chi-Squared: Variations in the Use of Non-Devon and Cornwall TEC Sources of Support and Advice**

Source of Support or Advice	Variable Associated with Differences in Use	Pearson's Chi-Squared	Significance
<i>Perceptions of Start-Up Adequacy</i>			
None	Sector Specific	9.34	0.053
Accountant	Generating Funds Internally	10.01	0.040
Accountant	Corporate Culture	8.39	0.078
Accountant	Coping with Pressure	12.52	0.014
Accountant	Setting Prices	8.11	0.088
Friends/Networks	Location	11.03	0.026
Bank	Coping with Pressure	8.38	0.079
<i>Characteristics</i>			
None	Other Qualification	2.82	0.093
None	Current Employees	12.22	0.002
None	Start-Up Employees	8.11	0.017
Other	A Levels	6.56	0.010
Accountant	Other Qualification	4.25	0.039
Accountant	A Levels	3.43	0.064
Accountant	Ownership	5.50	0.019
Friends/Networks	Company Age	11.19	0.011
Friends/Networks	Profit Performance	7.85	0.097
Friends/Networks	OM Sex	4.68	0.030

In the case of differences in support use between firms whose OMs have different perceptions of the adequacy of start-up support in addressing factors affecting growth, in all but two cases where associations are less clear, cross-tabulations indicate that a greater proportion of OMs with positive perceptions of the adequacy

of start-up support made use of the particular sources listed (see Appendix 3). Conversely, a lower proportion of those firms who felt that support 'adequately' or 'very adequately' addressed sector specific problems used none of the sources of support listed. Thus while earlier tentative (i.e. significant but invalid) results suggest that satisfaction with start-up support in relation to addressing certain growth factors may be associated with lower levels of use of further TEC coordinated support, for other factors it is associated with higher levels of use of non-TEC coordinated support. This may be because those OMs who had a positive experience of start-up support in relation to addressing these factors perceive that they have got all they can get, or indeed need to get, out of the support system and so therefore rely purely on the advice of their accountants, friends and business contacts.

Other significant variations relate to differences in the use of friends and networks, accountants, 'Other' sources of support and the use of no support at all. Cross-tabulations reveal that the use of friends and networks for support varies between males and females, with a greater proportion of females making use of them (67.3%) than males (49.6%). Also of interest is the fact that use of friends and networks is greatest amongst relatively young firms aged 13 to 18 months, with firms in older groups using them rather less. This could be because friends and contacts are most useful in the earlier stages of developing a business. A further result suggests some link between mild satisfaction with a firms profit performance and the use of friends and networks as sources of support. 60% of firms with 'satisfactory' profits and 64.5% who were 'neither satisfied nor dissatisfied' made use of friends and networks compared to 50% of those who were 'unsatisfied' and 36.4% who were 'very unsatisfied'. However, this does not necessarily mean that using such sources leads to higher levels of profit. It could alternatively indicate that having achieved a satisfactory level of profit (which may be modest), firms are happy to rely on less formal means of support. Indeed it is interesting to note that of

the 30 firms that achieved 'very satisfactory' levels of profit, only 36.7% used friends and networks as sources of advice and support. No association was found between the use of friends and networks and company employment growth.

Turning to the use of accountants by young post start-up businesses, one result was not unexpected. 37% of sole traders used accountants compared to 60% of other forms of company. This undoubtedly reflects the different accounting needs and statutory requirements of differing types and sizes of firm and the varying complexity of the financial management problems they are likely to face. Two other results show that on the one hand, OMs with A' levels are less likely to use an accountant for support and advice purposes than those without (29.2% compared to 44.4%) whilst on the other, a greater proportion of those with 'Other' qualifications (mainly low level trade certificates) use accountants in this way than is the case for those without such qualifications. Since no association exists between the form of company ownership and the possession of these qualifications, this finding suggests that those with high levels of academic attainment are more able to manage their own financial affairs than those who are qualified in trade related skills. This results in the latter group having to seek professional assistance.

Two other significant differences also relate to the possession of qualifications. First, a larger proportion of OMs with A' levels stated that they used 'Other' sources of support and advice than did those without (20.8% compared to 7.4%). Secondly, a greater proportion of OMs with 'Other' qualifications used no non-TEC coordinated sources of advice and support. These findings suggest that unlike those OMs with high level academic qualifications who are more inclined to search out other sources of support, individuals with lower level qualifications are less willing to use the non-TEC sources of support and advice available to them. This may be indicative of the often noted tendency for technically or practically inclined owner-managers to place a heavy emphasis on production or other practical matters whilst

showing less concern for broader operational or management issues. However, even if this is the case, such a tendency appears not to have a significant impact upon the employment growth performance of the firms run by such owner-managers relative to other businesses.

A final observation relates to those significant differences found to exist in the non-use of non-TEC coordinated sources of support between firms with different numbers of employees. Whilst a greater proportion of firms with employees at start-up used none of these sources, an examination of differences in relation to current employees suggests that it is those firms employing either no workers or more than two workers that are more likely to use them. A greater tendency towards the use of such sources amongst those employing no workers might be explained by the fact that the OMs of such firms are more clearly 'on their own' with no other individuals directly involved in the business to turn to for advice. Therefore external support is sought. Meanwhile, the need for external advice and support from such sources as banks, accountants and networks is also likely to be substantial amongst firms with a number of employees because of the greater complexities in terms of finance and the organisational aspects of running a business that employing more than one worker brings.

## **6.7 Improving Support: Open-Ended Responses**

The final section of the second questionnaire invited an open-ended response to the following question:

*How do you think support might be improved to encourage small firms to grow and take on more workers?*

The purpose of this question was to gain some qualitative insights to add depth to the inferences made regarding possible support improvements from the preceding quantitative analysis. An associated aim was to develop a greater level of pre-understanding before embarking upon the third qualitatively based phase of data collection. Further, in relation to more practical concerns, it has been suggested that the use of open-ended questions in surveys can play a role in increasing response rates by providing the respondent with an opportunity to 'speak their mind' (Moser and Kalton, 1971).

From the 183 firms responding to the second questionnaire, 113 (61.7%) provided an answer to the open-ended question. Following the initial rudimentary coding of responses given by each owner-manager, questionnaire forms were filed according to the main points drawn out by respondents. A number of reassessments of this preliminary categorisation were made, resulting in some categories being merged and some new categories being created. The final result was an eleven category classification of responses based upon the main points raised by each owner-manager. Each broad category is listed below.

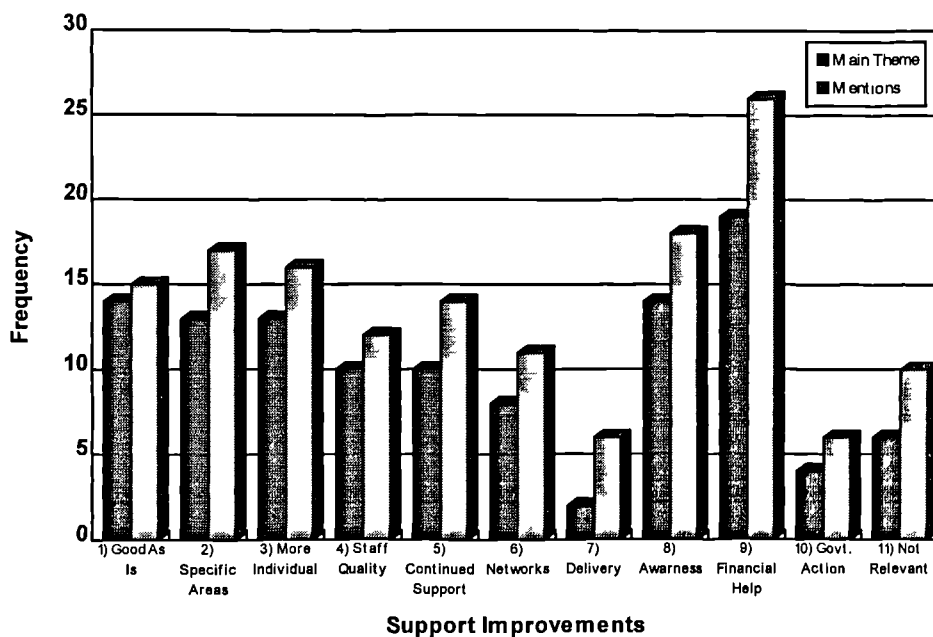
- 1) Support is satisfactory for my needs
- 2) There needs to be more emphasis on specific functional areas
- 3) Support needs to be more individualised
- 4) Trainers/counsellors need to be of a higher quality
- 5) There needs to be more follow-up help
- 6) A 'network' based approach to support is required
- 7) There need to be better forms of support delivery
- 8) Awareness of support needs to be improved
- 9) More financial assistance is required
- 10) More government action/regulation is needed



11) The question of support is not relevant

Following this first categorisation based upon the *main points* raised by each respondent, cases were again reassessed and re-grouped on the basis of whether or not any *mentions* were made at all (either as a main point or a subsidiary point) of the themes listed above. Frequencies relating to each classification were used to produce the bar chart below.

**Figure 6.2 Qualitative Response Frequencies: Support Improvements to Encourage Post Start-Up Firm Growth**



The sections below develop the points made by responding owner-managers by examining each broad category in turn. Those cited most frequently as a main theme are explored first.

### *More financial assistance is required*

The figure above shows that the most commonly cited main themes and subsidiary points related to a perceived need for more financial assistance. Most of these firms called for more direct grants for premises, training, employing workers and capital investment or for cheap loans. Others suggested an extended start-up grant period, lower business rates and more financially generous banking arrangements. A recurring theme was that whilst advice agencies appeared numerous, little financial help was available leading one respondent to comment "*with £Xmillion available to so many 'support groups' most finance goes into that group and not to the clients it was intended to reach...they all look after their own ends to perpetuate their own existence*". Whilst to a large extent calls for greater financial assistance were a predictable response, some firms pointed to specific ways in which labour and capital subsidies could, in the context of their own businesses development, facilitate growth. For these firms, the impression given was that any amount of advice could not compensate for a moderate financial injection. However, little mention was made of the role that banks play in the provision of finance for growth, with most criticism here centering on the level of bank charges and a greater need for an understanding of day to day cash-flow related requirements.

### *Awareness of support needs to be improved*

A number of the responding firms pointed out that they had not heard of many, or in some cases any, of the schemes and initiatives listed in the questionnaire. Many felt that a more pro-active approach was needed to increase awareness about what grants or advice might be available to them. Only one respondent stated that there needed to be more information available specifically about support for employing people. Two recurring concerns were that firms did not know who to approach to find out about support and that there needed to be more detailed information available

regarding what each scheme had to offer. The fact that many firms associated problems of awareness with confusion about how to access support suggests that a 'one stop shop' approach does have benefits. However, one firm complained that time constraints resulting from growth meant that *"I need to know about it without having to look"*, suggesting that a more pro-active approach may be required in relation to some growth businesses.

*Support is satisfactory for my needs*

As Figure 6.2 shows, a large number of respondents felt that the support that they had received through start-up and which is currently available was satisfactory for their needs. A number pointed out that they had relatively limited ambitions. This reinforces earlier results which suggested that start-up support was adequate in covering the essentials of business and so for firms with limited ambitions is likely to be satisfactory. In other words, the number of respondents that fall into this category is reflective of the limited ambitions and expectations of these firms. A further related point made by some was that there was little else that support could do to help because their firm's growth performance was dependent upon the state of the economy.

*There needs to be more emphasis on specific functional areas*

Of the thirteen firms falling into this category, seven felt that more emphasis on marketing was needed. There was generally a focus on providing practical help - for example, organising trade shows or help to fund stalls at such shows. Five other firms felt that more advice was needed on finance and funding. Again, the emphasis was on practical ideas such as alternative ways of raising finance for growth and practical tips on effective financial management, including the retrieval of debts.

Clearly in these two areas, a more practical and pro-active approach is demanded from support providers.

A further single owner-manager felt that programmes for taking on and developing personnel needed to be changed. Specifically, the Second Step scheme was criticised because funding was only provided to take on workers who met specific criteria, most notably that they were unemployed. The respondent pointed out that *"this is not necessarily the right person for the job...how can I find the time for supervision and training of someone who has been out of the workplace for so long?"*

In the case of many of the firms in this category, the calls for more help in specific areas appear to be linked to the particular issues of importance to each individual firm. Thus links with category 3 are strong.

#### *Support needs to be more individualised*

The main point made by respondents in this category was that support, particularly at start-up, was too broad and that it should be tailored to the needs of individual firms. There was a general preference for one-to-one advice rather than more general lectures or training sessions. However, there was also some frustration amongst a small number of owner-managers that where specific guidance had been given, this was later shown to be of poor quality. Thus whilst a demand clearly exists for a more individual approach, if this is to be effective a way needs to be found of matching clients who have specialist needs with advisors who have relevant experience. Some associations therefore exist with the responses of those firms in category 4 who call for improvements in the quality of trainers and advisors.

### *Trainers/Counsellors need to be of a higher quality*

The main concerns of those owner-managers in this category were that support provider staff lacked recent business experience or placed too much emphasis upon theory and rather less upon the more practical aspects of running a business. Typical comments included *"what at first appears to be correct on paper is not always correct in reality"* and demands were made for *"more practical and experienced people who have done more than just read books"*. These comments suggest that staffing issues are of central importance to developing a relevant and practically based support service for young post start-up businesses. Suggestions for improvement included the use of mentors and the active involvement of successful business people, preferably from the same industrial sector as the client's firm, in business support programmes.

### *There needs to be more follow-up support*

Ten businesses raised the issue of continued business support after start-up as the main area where improvements were required in order to encourage growth. The emphasis amongst respondents was upon a need for on-going, individual attention. Specific suggestions included more on-site visits to facilitate a better understanding of needs and to reduce time pressures and a more pro-active approach, with advisors producing written reports and making suggestions for improvements. Some respondents suggest that one advisor should be assigned to each start-up business in order to track its progress and make suggestions regarding further support or training programmes that might be of use. One owner-manager concludes *"the support agencies need to be pro-active rather than re-active"*.

*A 'network' based approach to support is required*

Eight firms chose as their main theme a need to develop a network based approach to support in order to encourage growth. Respondents suggested that formal or informal networks of ex-start-up businesses or firms in the same industry would be useful from the perspective of mutual learning and the sharing of experiences and also for making potential business contacts. One owner-manager suggested that such networks could also act as access points to advice services. A further recurring theme was the benefit of networks in dealing with the inherent loneliness of being a small business owner.

*The question of support is not relevant*

A small number of responding post start-up firms felt that the issue of support provision was not a relevant one to them. Three main reasons were given. First, one owner-manager said that he had no time to seek out or to use support. Secondly, five owner-managers argued that it is their desire to grow (or not to grow) that is the main factor influencing business growth and therefore support could do little to help. This once again underlines the importance of taking in to account an owner-managers growth motivation when considering strategies for encouraging business development. A number of firms also mentioned as a subsidiary point the role of the economy in influencing business growth, suggesting that there is little that support can do to help in the light of such external forces.

*More Government action/regulation is needed*

A small number of firms suggested that an increased role for government would be beneficial in assisting small firm growth. Comments ranged from calls for more regulations - targeted at large businesses - in order to help small firms, to less

regulations in order to minimise burdens (for example reducing paperwork requirements). Other suggestions included more infrastructural and training investment and more effective regional promotion programmes. These suggest that there exists some recognition of and concern about the particular difficulties associated with the peripheral nature of the two counties.

*There need to be better forms of support delivery*

A small number of firms raised the issue of support delivery, either as a main or subsidiary point. Different respondents favoured either a one-stop-shop type approach or a more pro-active effort on the part of support providers. One owner-manager suggested a more flexible approach to delivery, incorporating distance and modular learning whilst another respondent argued that Local Education Authorities should take on responsibility for the delivery of support. The wide variation in proposals reflect the difficulties faced by support providers in satisfying the divergent preferences, in terms of style of delivery, of different businesses. It would appear that a range of approaches is needed if all firms are to be reached.

Overall, the results from Question 23 demonstrate the very wide range of issues facing those concerned with the provision of support to encourage growth amongst young post start-up businesses. The perceived inadequacies in current support provision are numerous. However, what comes across strongly is that a substantial proportion of owner managers are either happy with existing support or feel that the question asked is not relevant to them. The underlying reason behind these types of response is likely to be the limited employment growth performance and/or ambitions of the bulk of firms surveyed. This reticence about growth is perhaps also shown in the high proportion of firms stating that greater financial assistance is required if growth is to occur. It seems that for many, employing extra workers would not be considered unless a substantial financial incentive were offered.

However, given the limited resources available for assisting young micro firms, this and other potential solutions are likely to be unfeasible. Further, the fact that the issues of importance raised vary considerably between firms ensures that blanket prescriptions are unlikely to be effective in meeting the needs of all businesses.

By adopting a broad survey approach, this and the previous Chapter have attempted to measure and quantify the nature of post start-up growth, the factors affecting growth and the ability of existing support to address the factors of importance identified. However, results from the second survey in particular have demonstrated the general absence of growth (or intentions to grow) amongst the sample firms. Thus whilst analysis has still produced some useful insights concerning the support needs of these firms, the needs identified cannot be said to relate solely to growth. To a large degree, they are likely to reflect more generalised 'performance related' needs amongst the sample population. The next Chapter attempts to address this problem by focusing more explicitly upon firms that have experienced some increase in employment. By doing this, it should be possible to identify more clearly whether or not growth is occurring amongst the firms in the sample frame and, if it is, describe more accurately the nature of post start-up 'growth firms'. Assuming that it is possible to identify sufficient growth-oriented businesses, this will enable us to develop a more richly informed view of support issues as they relate to this group. Following this, it should be possible to explore how progress might be made towards a more effective and yet practical and feasible support regime. This will be achieved by comparing and contrasting the views of case study small business owner-managers and support providers on issues relating to post start-up small firm development and how it might be fostered through support and assistance.



## **CHAPTER 7**

### **IN-DEPTH INTERVIEW RESULTS**

## 7.1 Introduction

In this chapter, the information resulting from in-depth interviews carried out with post start-up firm owner-managers and start-up support providers is presented and explored. For both sets of interviews, a key objective was to gain an understanding of why the results from the two questionnaire surveys emerged as they did. A second aim was to gain an insight into how both owner-managers and support providers feel that support for young post start-up businesses might most effectively be developed in order to improve the growth prospects of such firms. Thus the interviews facilitate the achievement of Research Aim 5. Finally, by focusing upon firms that have experienced employment growth, owner-manager interviews allow the group of firms under examination - 'growth' post start-up and micro firms - to be characterised, thus providing a better basis for understanding their role and significance.

## 7.2 Approach Used in the Analysis of Data

As previously described, 14 owner-managers who had responded to the questionnaires were selected for interview, along with five of the six start-up providers in Devon and Cornwall. All but one of the interviews was tape recorded and subsequently transcribed in full.

Further analysis of the considerable amount of information generated broadly followed the guidelines of Marshall and Rossman (1989) who describe five stages of qualitative data analysis. The first of these, *organising data*, involves the coding, reduction and summary of information. Following detailed coding, highlighting and the addition of explanatory or clarifying comments where necessary, data reduction was in the first instance achieved through the writing of extended summaries of individual transcripts. After this, "*partially ordered meta-matrices*" (Miles and

Huberman, 1994) were drawn up enabling summary descriptions from each interviewee relating to each question area to be presented in a format which facilitated the identification of general themes and common areas of concern or interest. Summary versions of these are contained in Appendix 4. Using these matrices, the second stage - that of *generating categories, themes and patterns* - was able to proceed.

Having reduced data and identified common themes, the third stage of analysis described by the authors is that of *testing emergent hypotheses*. This involves going back to the original data in order to find evidence to support the ideas and themes emerging from the preceding process of data reduction. This commonly involves the use of quotes and an assessment of the reliability of evidence and is an important 'check' against possible misinterpretations resulting from the over reduction of data. The fourth stage identified is that of *searching for alternative explanations* (that is, other possible reasons for a particular phenomenon) whilst the fifth is the *writing of the resulting report*. The authors argue that writing *is* interpretation with, for example, the choice of words used being of particular importance in accurately reflecting the views of individual interviewees.

The following two sections examine the data generated from interviews with owner-managers and with support providers.

### **7.3 Owner-Manager Interviews**

As previously detailed, firms were selected on the basis of whether or not they had grown in employment size since start-up. In selecting firms, consideration was also given to their geographical location and the industrial sector to which they belonged in order that, as far as possible, firms from all areas and sectors were represented. Of the 14 firms whose owner-managers were interviewed, three were small

manufacturers, one each were in the wholesale, retail and mail order trades, one operated in the transportation sector whilst the remainder were service sector businesses ranging from a sailing school to a private investigations agency. Five of the businesses were Cornish with the other nine located in Devon. Each of the five start-up providers were represented by at least two firms. By adopting such a "*maximum variation approach*" (Patton, 1987), any common patterns that emerge are likely to be of particular interest and value since they will highlight the shared experiences and perceptions of those otherwise heterogeneous firms that meet the 'growth criterion' chosen as the basis for the criterion sampling procedure used. Whilst all selected firms had grown in employment terms since start-up, the extent of employment growth varied considerably. The smallest employed just one worker whilst the two largest firms employed thirteen and fifteen workers. The rest employed between two and five people.

Four broad areas of questioning were pursued in interviews with owner-managers. These related to the factors influencing small firm growth, start-up support and its ability to address growth factors, firms' awareness and use of assistance other than start-up support and how support might be improved in order to help post start-up businesses to grow. Each topic is discussed in turn below. However, first further consideration is given to the question of how the 'growth post start-up firms' under examination might be characterised.

### *Characterising Growth Post Start-Up Firms*

In the table below, the key characteristics of the 14 cases examined are outlined. In particular, reference is made to the industry the firms operate in, the nature of business ownership, employment and business growth.

**Table 7.1 Characterisation of Post Start-Up Growth Businesses**

	<b>Industry/ Type of Business</b>	<b>Ownership</b>	<b>Employees</b>	<b>Growth</b>	<b>Market Served; Other</b>
<b>Case 1</b>	Wholesale patisserie. Specialise in gateaux's.	Married Partnership.	2 p/t. Currently seeking more. Some seasonal variation.	Employment - 0 to 2 p/t and growing in just under 3 years. Turnover doubled each year.	Sold through distributors across s/w region. Main customers - pubs and hotels.
<b>Case 2</b>	Yacht servicing & related retail & leisure services.	Sole trader. Est. October 1992.	1 f/t & 1 p/t.	Stabilisation following initial growth. Current under- capitalisation limiting growth.	Most customers non-local - visitors to Marina.
<b>Case 3</b>	Diesel fuel & related products	Sole trader. Est. October 1992.	Initial growth to 2 f/t employees, now none.	Possible future growth, but limited ambition.	Self-employed agent. Customers nationwide include haulage & bus companies
<b>Case 4</b>	Mechanical & electrical contracting.	Sole trader.	Varies - peak of 35, low of 4. Average 12 - 15.	Erratic, but fairly fast growth over 2 1/2 years.	Medium to large customers (local authorities, office developments). Mostly s/w, some national.
<b>Case 5</b>	Fabrication.	3 Partners. Est. late 1992.	1 f/t, 1 subcontractor working in-house.	Steady growth, aided by market diversification. Good prospects for future growth.	Niche strategy - little competition. Rely heavily on one contractor.
<b>Case 6</b>	Private investigations agency.	Sole trader.	12 f/t, 1 p/t. 150 self-employed agents nationwide.	3 phases over 3 years - rapid growth, shrinkage & recovery.	Main customers - insurance companies. Nationwide operation.
<b>Case 7</b>	Stained glass production.	Sole trader.	1 f/t - family member.	Slow but steady growth over 3 years, aided by market diversification.	Main customer - double glazing firm. Recent growth in wholesale craft items (tourism).
<b>Case 8</b>	Retail grocery/ delicatessen.	Sole trader.	Seasonal - 2 p/t in winter, upto 6 in summer.	Turnover from £140000 to £250000 in 3 years.	Central location in busy Cornish town serving local & tourist markets.
<b>Case 9</b>	Mail order gift catalogue & promotional sourcing.	Married Partnership. Est. mid 1992.	Currently taking on staff for major expansion.	Gradual growth through cautious market testing - now expanding rapidly.	Up market products targeted at middle aged females through newspapers & magazines.

**Table 7.1 Continued**

<b>Case 10</b>	Sailing school.	Partnership.	Seasonal. Several p/t workers in summer.	Cautious growth over 3 years. Grown from 1 to 17 boats. Employ more summer staff.	Most custom local eg schools. Some tourist trade.
<b>Case 11</b>	Sail design, manufacture & repairs.	Married Partnership. Est. Nov. 1992.	1 f/t & 1 p/t.	Gradual to start, but recently moved to bigger premises, taken over another business & taken on first f/t worker.	Mostly local trade.
<b>Case 12</b>	Shop fitting.	Sole trader. Looking for Partner to aid further growth.	5 f/t.	Rapid growth. Turnover increased 3x over 1st year, 4x over 2nd and 8x this year.	Nationwide - most customers in London & Bristol.
<b>Case 13</b>	Bulk road haulage.	Married Partnership.	1 f/t. Aiming to take on further f/t employee within 12 months.	Initial growth, but bad debt led to contraction. Now expanding again.	Most custom non-local. Mainly scrap and coal.
<b>Case 14</b>	Residential property management.	Sole trader. Est. October 1992.	1 f/t.	Slow growth, becoming more rapid in current year. Aiming to expand into new office premises.	Local trade. Specialising in quality rural properties.

From the table, it can be seen that the nature of the firms interviewed differed considerably in many respects. Some serve purely local markets whilst others are run as national companies. Some employ just one worker whilst a few employ several staff. Experiences of growth also vary. Certain firms experienced uninterrupted growth whilst others have grown more erratically, with some continuing to face problems which are inhibiting their future prospects for expansion. However, despite these differences, some features which are common across many of the case firms can be identified. For instance, all are either sole traderships or partnerships. Where partnerships exist, the majority are based around the family unit. In all but two cases, the businesses examined are micro firms. For some firms, employment levels vary considerably over time either due to seasonal influences or because of variations in the level of contract work available. Other

businesses employ predominantly part-time workers. The majority operate in the service sector. Whilst all of the firms examined have grown in employment size to some degree since start-up, for most, this growth has been very limited. Further, issues concerning the quality and permanence of jobs created also exist. Thus it is clearly the case that the methodology employed has failed to identify more than two or perhaps three firms that have experienced significant or rapid employment growth. It is therefore likely that many of the case firms will add relatively little to our understanding of growth in the post start-up period. Nevertheless, in relation to the majority of firms responding to the survey, those chosen for interview have performed reasonably well in employment terms. Although many have produced just one or two extra jobs for Devon and Cornwall, this contrasts with the situation in most post start-up businesses where no extra staff have been employed in the first 12 to 36 months. In some cases, it is possible that employment growth represents the expansion in size necessary for a firm to achieve a minimum efficient scale of operation. As such it is likely that many of the businesses interviewed are survivors rather than growth businesses. However, this in itself should not take away from the fact that jobs have been created. Furthermore, without undertaking research of a more longitudinal nature, it is not possible to distinguish between survival and growth with any high degree of certainty.

Thus in the context of this research, the term 'growth post start-up business' views employment growth from a very literal perspective. Given the very limited sustained growth observed amongst the chosen sample of firms, the term would appear to be inappropriate. Many businesses might more accurately be described as surviving firms. Nevertheless, given the importance attached to the policy objective of job creation by the study, there still exists some justification for examining in detail those firms whose relative employment performance is good. Through such an examination, a more appropriate basis for considering support improvements may emerge. Furthermore, the interviews with support providers are likely to provide

valid insights in relation to issues of assistance for post start-up businesses, including the issue of growth. What is apparent however is that because of the nature of the sample of businesses examined during this phase of the research, relatively few firm conclusions can be drawn from these interviews concerning issues of growth in the post start-up period, other than that it is notable for its near complete absence.

### *Factors Affecting the Growth Performance of Post Start-Up Businesses*

A very wide range of factors were cited by interviewees as having had an influence on their firm's growth performance. The fact that many of these were mentioned by just one or two owner-managers is an indication that factors are often specific to individual firms. For instance, one detailed how her pregnancy and the subsequent birth of her baby during the busiest time of the year for her business resulted in some considerable falling behind with work and through this, the loss of custom. Another firm employing 15 workers found that the limited work available locally in its chosen niche market acted as a constraint on growth and so necessitated seeking work at a broader regional or national level. Meanwhile a small manufacturing and fabrication company pointed to the performance of its main contractor (which accounted for over 70% of its business) as the main determining influence over its growth performance, though it was recognised that long term growth prospects hinged upon diversification and seeking additional customers. In contrast, a small firm in the leisure industry felt that its image was the factor of overriding importance since they were operating in the upper end of their market and, as the interviewee put it, *"image is important to these people"*.

The individual nature of responses given by a number of firms is clearly a reflection of the heterogeneity of the small business sector in terms of, for example, the industries that firms operate in, their stage of development and the personal



circumstances and abilities of their owner-managers. Amongst other factors mentioned by single owner-managers were premises constraints, the availability of labour of an appropriate cost and quality, the financial systems used, poor advice from banks and luck. However, although many responses were highly individual in nature, others recurred with some frequency. Although the exact circumstances of how these factors influenced growth differed between firms, many broad similarities were apparent.

One influence which was mentioned by eleven of the fourteen interviewees was that of the owner-manager's own drive, ambition or self motivation. Most talked of this in terms of the drive needed on a day to day basis to ensure that problems are overcome and the firm succeeds. A response typical of that given by many was that of the owner-manager of an electrical and mechanical contracting business: *"whether we rise or fall depends on our own efforts. And its only because I'm a stubborn sod that I don't give in to things...there's an impulse that drives me on and whatever problems I get, I get over"*. For some, such an opinion was based upon a perception that they were 'on their own' and that there was little help available to them. Others emphasised the importance of initial motivations in determining attitudes to work and ultimately to growth. One owner-manager of a service sector firm employing thirteen people, for instance, stated that his business was *"set up to be a national operation in the heart of Devon...we put that to the test and got it right"*.

The quality of the product or the service provided by a firm was stated as a factor influencing growth by six of the fourteen firms. The importance of competing on quality as a means of increasing demand and gaining repeat custom was mentioned by some firms whilst the role of reputation and word of mouth, particularly in a business based on the provision of what is essentially a personal service, was stressed by others. The latter also perhaps recognises the competitive advantage that

smaller firms might have over larger businesses in the level of individual attention and personal service that they can provide. The same also appeared to be true of the quality of products sold by firms. One Cornish shop owner stated that the main reason for his success was that he offered *"lines which are different to what supermarkets do...top brand leaders...where the quality is good"*. It is apparent that a number of firms felt that their ability to be distinctive in terms of the quality of both the products and the service provided to customers was an important influence upon their growth performance.

One further owner-manager also stressed the importance of non-price advantages, though he linked this closely to his sales ability arguing that *"it [selling the product] now depends on my expertise, really, to convince people that price isn't everything"*. Another interviewee also felt that it was his sales effort which was the key factor influencing his firms growth. However, he found himself in a Catch-22 situation because the success of his sales effort had meant that his time was increasingly taken up by production matters, thus meaning that he was not able to spare the time required to seek further sales to facilitate further growth.

Also raised by six of the owner-managers interviewed was the influence of his or her past work experience or market knowledge. All mentioned that their past experience or existing expertise in a particular field of work were important. One commented that a knowledge of the business in which one works is much more important than, for example, marketing or carrying out market research. Two interviewees confided that it was as a result of their previous work experience that they were able to identify their current area of business as a potentially rewarding one. Others focused upon the benefits gained from the development of either relevant practical/technical skills or broader management or sales related capabilities as a result of their earlier employment.

The influence that a range of 'bureaucratic burdens' has upon growth was again mentioned by six interviewees. Whilst other burdens were highlighted (for example PAYE), by far the biggest bugbear was the level of business rates. Firms typically commented that the level of rates was unjustified given the level of service provided for them and that they represented a drain on financial resources for very small firms. This was regarded as a very real barrier to expansion. One business woman whose service firm was facing difficulties after an earlier period of expansion stated *"they don't provide anything for that money, they just spend it chasing me for it, so all I'm doing is funding their persecution of me"* and concluded *"bureaucrats don't have a clue what it takes to be original, creative, dynamic - that's an anathema to them. So they do their best to find people who are creative, original and dynamic and get rid of them!"* Whilst clearly over stated and coloured by her own current difficulties, these views were to a certain extent shared by other interviewees.

The late payment of debts by customers was another factor cited by four businesses as one which affects growth. In one instance, a bad debt from a large customer put the survival of the business concerned temporarily in doubt and resulted in court action being taken to retrieve money owed. More commonly, the main effect of slow debt payment was upon the cash flow position of small firms. One owner-manager felt that having large companies as his main customers was a particular problem because *"they pay you what they think they'll pay you, when they think they'll pay you."* Another felt that prospects for growth were directly affected by late payment because the ensuing cash flow problems affected his position with the bank, the implication being that he was less able to secure finance for expansion.

The effects of the recession or the state of the economy were raised by four small business owners. They were of particular concern to three firms because the products or services they provide might be regarded as luxuries and as one owner-manager put it, her products were *"an expense that people can't afford now"*. One

owner of a yacht servicing business also found that other related businesses such as sailing schools and yacht chartering companies were increasingly taking on servicing work because of the impact that the recession had had on their main business. Thus there were more businesses competing for a smaller market. However, despite these testimonies, a number of firms when specifically asked about the effect that the state of the economy has on their business stated that they felt no substantial impact or had even grown through the recession.

Two firms stated that limited competition due to a niche market strategy had had a positive influence upon their growth performance, with one claiming that there were only three other companies providing the same service as his on a nationwide basis. For others however, competition represented more of a threat to future growth and so some had attempted to deal with this threat by adopting a variety of strategies including product and market diversification, taking over competing small businesses and cooperating with other businesses. Though these strategies had proved effective for some, others continued to face problems competing in their chosen market, particularly when competing with larger businesses. One owner-manager for instance stated "*[I have] proved that there is a market there, but...I'm a thorn in the big boys sides, so I've had trouble getting any business*". For such firms, the need for further strategic re-focusing is apparent.

Two related factors mentioned by four owner-managers were the time of year and the weather. Their impact was particularly great for firms associated in some way with tourism and so is very much reflective of the nature of the regional economy. One firm in particular pointed to the cash flow problems associated with seasonal variations in the level of trade. However, a shop trader located in the centre of a Cornish town attracting large numbers of tourists noted that "*it's a longer season...people are spending small holidays at each end of the summer...and I think that's helping*".

Overall, responses from owner-managers once again underline the largely individual, firm specific nature of the factors influencing business growth. However, some broad areas of similarity do exist. Those mentioned by six or more firms relate to the OMs ambition, the quality of the commodity being sold, bureaucratic burdens, past work or market experience and aspects of competition or competitive strategy. Interestingly, only two firms cited under capitalisation as a problem. This is most likely because the firms chosen for interview had all grown and thus to an extent could be viewed as having been relatively successful meaning that gaining access to capital finance was not a major problem for most of them. Indeed the two firms that cited under capitalisation as a problem were those that had most obviously struggled in the past or were facing difficulties at the time of the interview. It might alternatively suggest that most of the firms whose OMs were questioned had been adequately financed at start-up and that this was a contributing factor to their relative success.

#### *Start-Up Support and its Ability to Address Factors Affecting Growth*

Interviewees were questioned about both the ability of start-up support to address factors influencing their firms growth and their general views regarding the support programme, its positive aspects and its negative aspects. By and large, initial comments regarding support were positive. Five firms mentioned the usefulness of specific aspects of the training such as marketing, financial management and cash flow projections. Four applauded its honest approach in addressing the pro's and con's of running a business. Two felt that the emphasis on business planning and making individual owner-managers "*do the work*" was beneficial from a motivational and a strategic point of view. Some also praised the quality and approachability of staff. Six firms stated that they felt that the grant that they received was the most important aspect of the support provided. Negative comments focused mainly on the lack of individual attention given to owner-managers with

specific needs, the lack of on-going support and on-site visits and the perceived political motives behind the scheme. Concern was also expressed by three firms about the variable quality of training and counselling staff

With regard to the ability of start-up support to address growth factors, responses suggested substantial agreement amongst firms. The view overwhelmingly taken was that whilst the support was good at the 'basics' of business and was helpful in getting firms off the ground, it did not adequately address issues relating to post start-up growth. A comment typical of many responses was that *"they gave you the basics, but I think that once you got going, you were on your own really. I mean if we had a problem now, I wouldn't go back to them"*.

The reasons given by firms as to why they felt support at start-up was less than adequate at dealing with issues of growth were numerous and to an extent mirror some of the general criticisms made about support. An opinion that was aired more than once was that support cannot actually address growth either because of a belief that external factors are the main influence on growth or that growth can only come through the efforts of individual owner-managers. Comments included *"like all things, you can't learn it out of a teacher and you can't learn it out of a book. It's experience that does it"* and *"it's only through your own perseverance and initiative that the business grows"*. Undoubtedly, the existence of such attitudes is likely to be a key reason why so few post start-up firms seek any further support.

Other interviewees felt that the reasons why start-up support was unable to address the factors influencing their businesses growth had more to do with the nature of the provision itself. The most common criticism was that it was insufficiently specific to the needs of individual businesses to be of any use beyond teaching the basics of business. Because there were perhaps 20 owner-managers all with different business ideas, there was a feeling that training sessions were inevitably going to be very

broad and, as a result, individual needs were not always addressed. Neither did the individual advice received by owner-managers appear to compensate for this because of the lack of experience of their individual advisers in their specific area of business. As one interviewee put it *"in most cases, they just can't speak because they're not specialised in that profession - they just talk in the general business sense"*.

A further flaw identified by a number of firms was an insufficient on-going or follow-up element to start-up support. This was deemed important by one owner-manager because she lacked an understanding of the needs of her own firm during the early start-up period and so any advice could only be of limited use. It was suggested that support be spread out over time to enable owner-managers to find out what their needs are. Perhaps more to the point, some firms argued that start-up support had to have a more substantial on-going element because the needs of businesses change over time. A recurring complaint was that there was not much follow-up help after start-up assistance ended. Where it was provided, owner-managers often complained that it was inadequate. An owner-manager of a successful service sector business recalled his experience of the three monthly follow-up sessions after start-up as follows: *"it's a case of 'well, we have to do this. What are your problems? Well we don't want to do this - just sign here to say we've had this meeting'. Waste of bloody time"*. What is most clear from the comments made is that most firms feel that start-up support in itself can only represent part of any attempt to address growth issues. They see it as a helpful element of what should be an on-going process of support. In reality however, many owner-managers felt that, in the words of one business owner, *"they take you so far along and then they just cast you afloat"*.

A point raised by the owner-managers of two of the firms that had experienced most rapid growth was that the early success of their companies meant that they were less

able to take full advantage of the training and advisory support offered through start-up, purely because of a lack of time. As a result, any benefits that might have been gained were lost. This clearly suggests that there is a danger that those firms that support providers are most eager to reach and to assist might be becoming excluded from the existing support framework from a very early stage. It also underlines the possible benefits of maintaining contact between support providers and post start-up clients.

Finally, one owner-manager hinted at a broader reason why start-up support might not be addressing factors influencing growth. She argued that what she saw as the politically motivated goal of the scheme to "*get people off the dole queue*" led to the approval of less than adequate business plans, the implication being that the chances of creating good quality growth potential firms were undermined by such motivations. Another interviewee argued that a concern for the through-flow of numbers on the scheme was in particular an obstacle to receiving the individual attention and one-to-one advice that he felt he needed.

Overall, though most interviewees felt grateful for the start-up support that they received and felt that it should continue, on the specific issue of its ability to address factors influencing their businesses growth performance, the consensus of opinion was that on its own, it was inadequate. Whilst a minority of owner-managers questioned the extent to which any support could help firms to grow, most pointed to specific problems with the support offered which they felt accounted for its inadequacies in this area. The most important of these were its failure to assist firms on an individual basis and the lack of on-going help. The next section examines the role of further support for post start-up firms in more detail.



### *The Role of Further Support*

Interviewees were questioned about their awareness and use of further support avenues coordinated by DCTEC and also their opinions of the initiatives and schemes available, whether they be based upon general perceptions of assistance or upon their experience of having actually received some form of further support. Subsequently, they were also asked about their use of other non-DCTEC sources of advice and their thoughts as to the importance and usefulness of these.

In terms of owner-manager awareness of further support, four of the interviewees felt that they were aware of the support available, either through the efforts of their start-up providers to make them conscious of it or as a result of their own research. However, interestingly it was this group of people who felt least inclined to use support. For one, this was because his firm had not faced any problems which he felt warranted him seeking help rather than because of any negative perceptions about the usefulness of the support available. Others however were more skeptical of the actual value of the support. One felt there was no assistance available after start-up that was relevant to her businesses needs, saying *"I wouldn't go back to them now. It would be too specialised a problem that they wouldn't be able to give you advice"*. Another added *"what they are likely to offer me is a general overview of running a business which I'm already good at. I know where I'm going wrong...all they could probably do is quantify it and make it more 'objective', but they would come to the same conclusions"*. Her negative impressions were compounded by a fruitless attempt to seek support through the 'Business Angels' scheme. Both this owner-manager and one further interviewee felt that unless the further support available was very practical in nature or business specific, it would not be worth pursuing. A further four firms simply concluded that there was no support available to them, at least not cheaply. One of these felt that there had been a reduction in the level of service available to businesses locally since the time that she completed her

start-up course. The consensus of opinion amongst these firms was that, as one put it, *"in the end it's down to you"*.

Three further owner-managers claimed to have only limited awareness of further support. All suggested that their limited awareness was a failing upon the part of the TEC or its support providers. One felt that they were too remote and that a personal approach involving business visits was required whilst another proposed telephone based pro-active marketing of services. Interviewees suggested that a lack of time for them to seek out support necessitated such approaches. Similar responses were given by the three owner-managers who had no awareness of further support. The owner of one successfully growing firm stated *"you're so busy you haven't got the time to channel yourself down those directions"*. However, unlike most other interviewees, he felt that whilst more pro-active follow-up publicity would be useful, it was primarily the owner-managers responsibility to seek out support. Thus it was knowing where to look that was important, not awareness of particular schemes or initiatives. Asked where they would go to for support if they needed it, most firms mentioned either DCTEC or their start-up support provider. This does indeed suggest that most would be able to gain access to what support was available to them, no matter what their level of awareness of the particular programmes on offer. However, what is clearly of greater concern is that those post start-up firms who *have* become aware of the support available to them feel that it is of little or no benefit to them and as a result would seek advice from other sources or have given up looking. One firm that had sought assistance from the TEC thought the staff and their advice to be helpful but ultimately found that no practical support was available to him in his area of need. As another firm put it, *"we've done the research and we've come to the decision that we're on our own"*.

A further line of questioning focused upon the fourteen owner-managers use of and views upon other sources of advice not within the TEC support framework. Not

surprisingly, the most commonly cited source of external assistance used by the firms was their bank. Twelve of the firms had made use of a bank, the remaining two having deliberately avoided any external financing, building their firms up slowly from savings and retained profits. One firm stated that the bank was used purely as a source of finance and no advice was sought. Of the others, two felt that the advice provided by managers was sound and that their relations with them were good, though one admitted that this was most likely because his firm was performing well. The remaining firms were generally critical of their banks. Most criticism was leveled at their unwillingness to lend and what was perceived as their short-term outlook. Six firms also pointed to high interest rates and high bank charges as being major bugbears. Thus criticism was generally based less upon the advice received and more upon the financial regimes imposed upon them.

Another source of advice cited by eight owner-managers was their accountant. Two firms felt that they made an important and necessary contribution to their firm's operation and gave good advice. Four others however criticised them for their high costs and for being largely interested in making money for themselves. One felt that her accountant's advice was of limited use because he was only interested in balancing the books and lacked imagination from a business perspective. Another added *"in the end he'll end up running the firm, making all the decisions and financial decisions. A whole part of running your own firm is making your own decisions - the independence"*. This perhaps goes to the heart of many of the negative attitudes expressed by owner-managers about private external sources of assistance. The general impression given by most firms was that banks and accountants were 'necessary evils' and that rather than being supportive, they actively restricted their freedom and potential for development. In this respect, they compare badly to DCTEC and the support providers because although other weaknesses were cited, some interviewees felt that their independence and impartiality was a positive aspect of the help that they provide.

A third broad source of advice and support discussed with interviewees was that of networks, business contacts and personal friends. Of the thirteen owner-managers who commented on these sources, eleven had made use of them in some way. The benefits of networks raised by these interviewees were wide ranging. A number of owners stressed the value of advice received from contacts within their own area of business because, as one interviewee put it, *"you can't beat experience"*. Another added *"the only way I'm going to find out something exactly suited to my business is to say 'there's a business doing pretty much the same thing as I'm doing' and if I can get information off them, that would be a lot more beneficial than someone who's done something similar, but maybe not exactly the same sort of thing"*. Thus the use of networks is to some extent a reflection of the desire among owner-managers for the type of individual, firm specific assistance that young post start-up businesses perceive is not available to them through more formal channels of business support.

Other interviewees variously talked of the role of informal networks in gathering information about their particular sector, as potential sources of finance and investment and as a means of passing on custom by way of personal recommendations where there is no direct competition. For more than one firm, issues of peer trustworthiness, often built up through past work experiences or on a social level, appeared important to the resilience of such relationships. One further owner saw 'networking' as being an important influence on the process of product-market development, stating that *"the networking effect is probably one of the biggest ways of 1) improving the product line and the way the product is done and 2) also improving your customer base"*. Thus the emphasis here would appear to be upon developing networks among customers rather than other producers.

Four interviewees mentioned the role of more formal associations such as Business Clubs, Chambers of Commerce and Trade Associations. However, for these firms it was clear that they were only interested in such organisations when they saw

specific benefits to being a member. Stated benefits included credit control facilities, a more prominent local profile or enhanced reputation, access to association trade shows and regular updates on relevant trade regulations and procedures. This adds to the evidence suggesting that networks of different types and levels of formality serve rather different purposes for the firms involved.

Whilst eleven owner-managers raised positive aspects of networks, nine also highlighted problems relating to participation in them. Most commonly, firms argued that their own particular sectors were too competitive to facilitate any degree of cooperation. A typical response stated *"there's a lot of dirty tricks going on and networks would just lay yourself open to more of them"* whilst another respondent argued that *"everybody wants to know what you're doing. And then if they've got half a chance, they'll move in"*. Another concern was that by revealing his or her business problems to other people in business, a business person could precipitate a loss of confidence, thus scaring away custom.

Negative views were also expressed about more formal Business Clubs. Having heard unfavourable reports about one such organisation, an owner-manager of a fast growing firm stated *"I'm not going to go to a meeting for somebody to moan about his corner shop not taking off - I'm not interested"*. Two other respondents stressed that such clubs need to have a practical focus rather than being 'talking shops' and should be business led, not merely extensions of support agencies. In general then, unless trust already exists in a relationship or set of relationships, most firms tended to be cautious about networks, only making use of them if a specific benefit could be gained. There was little evidence of any strong cooperative arrangements between firms.

Three of the owner-managers interviewed had made use of private consultants, though in only one instance did the owner-manager appear satisfied with the service

provided. However, in this case the consultant involved had subsequently gained a financial interest in the company and so was providing an on-going service for a reduced fee. Whilst this case demonstrates to some extent the benefits of an on-going close relationship with a professional adviser, the fact that the adviser involved had previously worked for a support agency but had left to pursue a career as a private consultant suggests that such relationships might prove difficult to maintain over the long term if developed through such agencies.

A further source of advice mentioned by one firm was the Cornwall Economic Development Unit. This received much praise from the owner-manager for its practical approach and speedy service. Examples quoted by the interviewee included their ability to provide her with a list of suppliers of pendulums and their proactive assistance in helping her to secure a large order. The interviewee contrasted this type of support with that provided by her start-up support provider whose approach, she felt, was too formal and seminar based.

Overall, further support used by post start-up small firms came largely from traditional sources such as banks and accountants. As seen already, few made use of further TEC services, though there was some use of networks albeit primarily on a fairly informal basis. In general, a key requirement amongst firms was for further support that was practical and individual. This became more apparent when questioning firms about their views as to how support might be improved to help and encourage firms to grow.

#### *Support Improvements to Assist Post Start-Up Firm Growth*

Each of the owner-managers interviewed made several suggestions as to how support might be improved in order to help young post start-up firms to grow and from these, a number of broad themes can be identified. Together, the themes

mentioned by interviewees point towards a desire among most owner-managers for practically based support delivered in the context of a close, on-going client-support provider relationship.

Developing the criticisms made regarding start-up provision, eight of the fourteen owner managers felt that continued, on-going support was necessary in assisting firms to grow. Some arguments centred upon the changing needs of firms over-time and the better understanding of business support and training needs that owner-managers are able to develop after trading for a period of time. A further recurring theme was the need to establish a long term relationship with support providers so that they would be more able to understand the individual needs of businesses and thus make informed recommendations. Calling for continued follow-up contact after that associated with start-up support ends, one owner stated *"because they've known it from the very beginning, they know where you were going or what's going on - and I think a lot of small businesses, being small, there isn't that contact there and so it's somebody to bounce ideas off"*. More than one interviewee pointed to the tendency for owner-managers to be heavily involved in the day to day running of their business as a particular problem and saw a role for advisers with long standing relationships with firms in taking a broader view and providing direction and focus in terms of developing a longer term strategy. One interviewee envisaged this role to be essentially that of a *"Godparent"* who, as a consultant or current business owner, could *"put in some practical business experience and hand holding"* and might perhaps develop a financial interest in the firm.

Developing similar arguments, seven interviewees specifically mentioned the benefits of on-site visits by business advisers. One particular consideration raised here was that of time. As one owner put it in relation to a problem faced after start-up *"we couldn't have simply stopped for a day to go on a course or go in and talk to someone about it"*. The same owner raised a further commonly cited reason why

business visits would be of benefit arguing *"we need someone to come on-site and see the problems that we've got to be able to appreciate it"*. The underlying suggestion here was that the heterogeneity of the small business sector demanded an understanding of the operations and problems of individual firms and that this was best facilitated by visiting the businesses involved. However, one firm felt that routine or regular visits were less beneficial than visits 'on demand'. Recalling a visit by a start-up counsellor, one interviewee felt the time was wasted because *"at the time, things were okay. It would be better if you could get them to visit when you really need them"*.

On-site visits represent one distinct way in which many owner-managers felt support could be made more specific to individual needs. Seven firms proposed other potential support improvements which they believed could also help to address the issue of individuality. One suggestion was 'Master Classes' for owner-managers in particular sectors presented by successful business people with a relevant background or area of expertise. More than one interviewee felt that it would be beneficial for a data-base of specialists or contacts from a variety of sectoral backgrounds to be developed by support providers or the TEC in order that firms could have access to advisers with directly relevant experience on demand. Thus the role of the TEC would become that of a network broker. One interviewee added that the quality of support and advice received through such a system could be assured through a continuous programme of evaluative feed-back from owner-managers. Other suggestions included the development of sectoral streams for start-up support and a greater emphasis on helping firms to isolate what their needs are.

A large number of owner-managers felt that grants, loans and subsidies had an important role to play in helping young post start-up firms to grow. In some cases, such demands were relatively non-specific and so might be regarded as a natural and not particularly surprising reaction to the question posed. However, other



interviewees presented more reasoned proposals. One, for instance, suggested that each new start-up should be given the option of renting or purchasing a computer at a reduced sum. She argued *"the more time I spend with administration, the less I have to be productive. I'm sure that for myself and probably for most other people using standard business application,s they would immediately save a lot of time and therefore put more energy into being productive. And they'd also be in closer control of their business, being able to do projections, spreadsheets and so on..."*. Others variously suggested premises grants to facilitate physical expansion, a free system of accountancy services for very young firms with minimal accounting needs, interest free government loans to cover short term cash flow problems affecting businesses with long term viability and labour subsidies to fund staffing where this will allow for growth opportunities to be taken advantage of. Some firms called for other forms of government action including the more effective lobbying of banks to get better terms for small businesses, a reduction in business rates and the simplification of regulations applying to small firms.

Seven of the owner-managers questioned felt that there should be a greater emphasis in training or advice upon certain specific areas pertaining to small business management. In each case, the emphasis was on a need for practical advice on specific problems. One felt that there was a particular need for advice on purchasing and effectively using personal computers. Another felt that there was a need for individualised advice on financial management with the focus upon time saving techniques and developing a greater level of financial control. Other interviewees saw a requirement for advice or training in such areas as marketing at low cost, employing workers, time management and personnel management. In relation to the last three areas, more than one owner-manager stated that their roles had become far more complex after taking on staff. Clearly calls for more training and advice in these specific areas reflect the different needs of firms and the diverse nature of the problems that they currently face. Such varying needs again underline the

importance of a more individual approach to support. Responses suggest that this is likely to be of greater benefit than a more broadly based training programme. Indeed three of the owner-managers interviewed saw the most appropriate form of support delivery to be a programme of on-going counselling, delivered in such a way that the specific problems currently being faced by an individual firm constitute the focus of the advisory session.

Two of the interviewees developed the theme of individuality in support further, stating that an aspect of support which they would find useful in assisting them to grow is that of the development of practical vocational skills training or some form of grant to help pay towards it. One related how his partner had gone on a gateaux and chocolate making course which was useful to the development of their production operations and wondered whether support agencies might play a role in directing firms towards such courses. Another stated that *"specialist training courses - like 'how to be an outboard motor mechanic' - would be wonderful"*. This suggests that whilst the majority of firms feel that support in business management should be delivered on an individual basis with the focus being on need specific counselling advice, training based courses in practical skills, or information about them, would also be viewed as beneficial.

Despite the recommendations made for improving support to aid growth by all the owner-managers interviewed, it was clear that in four cases, the overriding perception was that no manner of support can help a great deal. Typical comments included *"it's experience that does it"* and *"only you know your own market"*. The latter comment reflects the belief amongst some of these firms that it is the individual nature of their business that prohibits effective support. One firm, whilst feeling that on-site counselling and evaluative checks would be preferable to taught classes, concluded that providing the type of support required would *"[be] difficult because we're not a 'regular' business"*.

In addition to the broad recurring themes outlined above, various ad hoc suggestions were made by owner-managers. These included improving awareness through both one-stop-shops and proactive marketing, lower charges for training, younger support staff, more evening or out-of-season classes, a central data-base facilitating access to information on grants, tax and other issues affecting small firms, evaluative 'health checks' and an even more localised delivery system. One interviewee felt strongly that the whole concept of support for businesses had to be changed so as to develop a more entrepreneurial, non-conformist approach. However in broad terms, the interviews clearly demonstrated more than anything else that most firms wanted support that was on-going, more practical in nature and individual to the firm involved.

#### **7.4 Start-Up Support Provider Interviews**

Interviews were conducted with five of the six start-up support providers for Devon and Cornwall. In four cases the Chief Executive of the organisation was interviewed whilst the remaining meeting was held with a senior manager. In three cases, additional senior employees were present during the interview.

Each of the support organisations was involved in the provision of a wide variety of schemes in addition to their role as start-up providers. These ranged from programmes with local schools and colleges to the provision of business support services in Eastern European countries. All were involved to varying degrees in the development of local Business Links. With regard to the provision of start-up support, the current TEC funded programme for those qualifying for Adult Training (AT) represented an ever diminishing element of the support portfolio of all providers as a result of recent funding cuts. Instead, providers have increasingly sought to provide a programme of start-up support using Further Education funding sources. This programme, developed and funded through one single provider but

delivered by all six, is open to all and leads on completion to the presentation of a 'Preparation For Business Certificate' (PFBC). No grant is awarded to participants on this scheme. Though initially designed by the 'franchising' provider, the exact manner of delivery for the programme varies to some extent between business support organisations, although coordination is maintained through the means of provider contact meetings.

As with the owner-manager interviews, the four broad topics covered related to the factors influencing small firm growth, start-up support and its ability to address growth factors, the role of further assistance other than start-up support and how support might be improved in order to help post start-up businesses to grow.

#### *Factors Affecting the Growth of Post Start-Up Business aged 12 to 36 Months*

Again a variety of responses were given by interviewees. However, one influence upon which they all agreed was that of the owner-managers ambition and desire to grow. One Chief Executive stated *"for a lot of people seeking to be self-employed, the last thing they want to do is grow"*. Life style factors were cited by interviewees as being particular constraints upon the growth ambitions of many firms, particularly given the popularity of the south-west of England as a retirement location. Four suggested that the majority of owner-managers wanted only to achieve a reasonable standard of living for them and their family and had no ambitions to grow beyond the level of activity that was able to sustain such a standard. The reasons that owner-managers have for being in business in the first place were linked closely to their ambitions by one respondent who felt that for those people who had left large organisations, there was no desire to create what they had chosen to leave. He felt that it was not appropriate to impose values upon small businesses that do not take into account the owners intentions. Interestingly, two interviewees talked of growth as a 'bi-product', implying that growth often

occurs by accident and thus that a strong ambition to grow is not necessarily a precondition for growth. One stated that those firms who do grow usually do so because they are forced into it since *"if you don't grow, you're gonna get squeezed out"*. Others however attached greater importance to the personal qualities of owner-managers and their positive contribution to the development of growth businesses. One argued *"the most important thing by 14 laps in a 15 lap race is the person themselves and their determination, their ability and their willingness to sacrifice and to do what they've got to do to get there"*. Thus whilst there was substantial agreement that ambition does play a role in growth, interpretations of the precise way in which its impact is felt differed slightly between interviewees.

Whilst there was a sense among most interviewees that the personal qualities and ambitions of owner-managers were of primary importance in influencing growth, the owner's business related skills and knowledge were also regarded as being important by two support providers. One described the typical owner of a growth business as someone *"who's not just got knowledge of what they're doing, but has got a good sound business knowledge as well"*. This, it was argued, could be gained either through past experience or a determined effort to fill any knowledge gaps by making appropriate use of training. Important skill areas identified included marketing and selling. The other interviewee also stressed the importance of negotiation skills for establishing effective relationships with, for example, suppliers and banks. The influence of control skills in both financial and people management were highlighted too, the view taken being that if a person is not in control of their business at start-up, then their chances of achieving sustainable growth are limited. Examples were cited of firms that had grown rapidly due to favourable market conditions but which had later floundered because they lacked appropriate managerial skills. This Chief Executive felt that market planning skills were often not important to growth arguing *"if you take my premise that a lot of people are forced into growth, market planning is not a big area because the market forces*

*them anyway*". Whilst this might be the case for those without any desire to grow, for those actively seeking growth, market considerations would clearly become more significant. In relation to this point, one of the interviewees stated that some types of business (for example arts and crafts ventures) traditionally do less well than others. However, he conceded that despite generalisations, it was not possible to predict success or failure in each case. A different Chief Executive specifically made the point that sometimes the firms that are least expected to do well perform exceptionally. The case of one firm currently employing around 150 people with offices in Europe was given as an example of a business initially felt to have limited potential. The role of 'luck' and hitting the market at the right time was mentioned by three interviewees. Since success was not predictable, one stressed the importance of giving an equal opportunity to all owner-managers to access support if they feel confident that their venture will succeed. In other words, the unpredictable influence that luck and timing have upon business growth prohibits effective and consistent targeting.

Two of the support providers questioned felt that the nature of the current support available represented an important influence upon business growth. One pointed to the impact of the lack of help available to small businesses after the completion of start-up programmes. She felt that follow-up programmes were needed because many of those firms that had growth potential had little understanding of how to go about pursuing growth. A reduction in survival rates three years after start-up was cited as further evidence to support the view that inadequate support provision had a negative impact on business performance. Like other providers, criticism was in particular leveled at the decision to withdraw funding for the 'Second Step' initiative. One interviewee felt that the liabilities associated with taking on new workers were a barrier to business growth and that there was therefore a continued need for transitional relief to reduce such costs. In interpreting these views, it should

however be borne in mind that support providers clearly have a vested interest in calling for more support schemes to be funded.

Another interviewee felt that inadequacies relating to existing support were related to the way in which they are designed. He argued that they were too "*mechanistic*" and proceduralised and so did not sufficiently take into account the psychology of the owner-manager and in particular different growth intentions. He and one other interviewee also felt that the existence of an "*anti-training culture*" in the UK had a serious impact upon the take-up of training opportunities and therefore the development of business skills in small firms, thus impacting upon the development of businesses themselves.

The Chief Executive of a support organisation operating in the west of Cornwall felt that a lack of finance was a key factor influencing the growth of local post start-up businesses. In many cases, he felt that a low initial capital base ensured that it was difficult for firms to accrue sufficient capital resources over the first few years of operation to fund later expansion. The problems relating to finance were linked by the interviewee to the fact that firms in his area were persistently viewed as being high risk ventures by banks. This was in turn due to the areas peripheral nature, its continued economic decline and lack of large scale businesses, the saturation of local markets by new businesses during the 1980's and the fall in value of traditional forms of security such as agricultural land and residential properties. Because of the areas peripheral nature, some importance was also attached to infrastructural inadequacies and their impact upon the growth of small businesses.

Locational influences were also associated with a final factor cited by the Chief Executive of a training organisation operating in a more prosperous area of the region, East Devon. Here the problem was one of a shortage of suitable and

affordable premises to facilitate the physical expansion of small firms due to high land prices.

Although the responses of support providers were similar in some ways to those given by owner-managers, particularly in relation to the perceived importance of the small business persons personal qualities and ambitions, some differences are also apparent. For instance whilst some providers emphasised the importance of management skills and the nature of training received, owner-managers tended to place more importance upon product-service quality, their past experience and external influences. Relatively little mention was made of competitive strategy by support providers other than in the context of the timing of market entry. Meanwhile the owner-managers cited a wider range of factors, reflecting the individual nature of the influences affecting each firm. Nevertheless, even between support providers different factors were cited. Some of these differences are clearly indicative of variations in the economic and social context in which support providers in different locations are operating. Others are perhaps more reflective of the different personal career backgrounds of the Chief Executives interviewed, some being ex-businessmen, some training professionals and others ex-bankers.

#### *Start-Up Support and its Ability to Address Factors Affecting Growth*

The consensus of opinion among the support providers interviewed was that by itself, start-up support has been inadequate in addressing factors influencing the growth of post start-up businesses. Yet at the same time, its role as a key element of the broader support framework was valued, particularly with regard to the initial establishment of on-going client-provider relationships which might subsequently be of benefit in addressing growth related issues.



Raised by two interviewees was the fact that start-up contracts are based upon survival targets which, as one Chief Executive put it, "*dictate quantity rather than quality*". In addition to the influence of survival targets, another provider stressed that start-up support provision entailed "*a huge duty of care*" which led to an emphasis on risk minimisation. He concluded that together these two influences meant that start-up support was "*anti-growth, almost*".

Two interviewees felt that one of the benefits of the Business Start-Up Award programme was that the counselling and follow-up support provided enabled growth related issues to be addressed. One commented "*where the previous schemes had a huge advantage was the nature of the relationship that formed between the individuals and the counsellor because a lot of growth type issues have to be handled on an individual basis*". Another added that it was the ability of individual advisers to build a rapport with clients to facilitate a two way flow of information which most affected the ability of start-up support to address growth. A further benefit was noted by a third Chief Executive who felt that the on-going help associated with past schemes helped to create longevity and so enabled banks to be more confident about supporting start-up firms. However, one interviewee felt that under the Start-Up Award scheme, whilst in theory growth issues could be addressed through three, six and nine month follow-up counselling sessions, in practice there was a reluctance among owner-manager to take advantage of the advice and support available. This was particularly the case in relation to growth related topics such as business planning and was blamed upon the anti-training and anti-planning attitudes that prevail amongst UK businesses.

Despite some criticism, there was a general concern that the benefits of the on-going support element of earlier schemes were now being lost. In relation to the current start-up support available, three interviewees were concerned that there was now insufficient follow-up help available in the form of either counselling or training.

Whilst most stated that they would not turn post start-up firms away if they sought advice, there was a worry that the lack of any funded programme was putting a strain on provider resources. Further, Business Advisory Service (BAS) support was viewed by more than one interviewee to be inadequate, or to be aimed at older firms, and so not suited to businesses developed through the PFBC scheme. Two interviewees also felt that the requirement for the remaining participants on the reduced DCTEC funded start-up programme to start their business immediately after finishing training in order to qualify for a grant was ill considered. One commented *"you cannot create an entrepreneur under such strict regimes"*.

However in other respects, the PFBC scheme received considerable praise from interviewees. An improvement in the quality of work being produced was noted by most Chief Executives and one felt that if this was carried forward, there might be an improvement in the quality of business start-ups. Three reasons were suggested for the rise in standards of work. First it was argued by one interviewee that participants in any course want to be seen to have achieved something and the awarding of certificates gives them a feeling that they are becoming qualified. Secondly, one Chief Executive, who might be described as a training enthusiast and a skeptic with regard to the value of counselling, pointed to the benefits resulting from the longer contact hours provided for the scheme. Longer hours allowed for a wider range of topics to be addressed in some depth during training sessions and represented a step forward from previous business plan and counselling led approaches. Perhaps more important however is the fact that the course is open to all rather than just the AT eligible. Commenting on the current TEC funded programme one Chief Executive stated *"you don't get your best business ideas from the AT eligible - you're gonna get the last resorts. What you want is people who are in employment and are going to leave employment and really try and run a business"*. The general feeling was that the switch away from TEC funding had freed providers from the constraints that were an inevitable bi-product of the

political objective of creating entrepreneurs from the unemployed. Given the importance attached to owner-manager motivations by both sets of interviewees, and given the other benefits of the PFBC scheme outlined above, it is possible that the programme may prove to be a more effective tool for the establishment of growth businesses than previous programmes. However, there is no requirement that a business should actually be set up and as already noted, the lack of any substantial on-going element was regarded by most of the interviewees as being a considerable drawback in terms of providing support for potential growth.

A problem cited by three interviewees in relation to start-up programmes was their mechanistic or proceduralised nature. They variously felt that this meant that the psychology, background or individual needs of entrepreneurs were not adequately considered. In one case, this opinion was clearly linked to the interviewees preference for individual advice and counselling centred support developed through the establishment of an on-going rapport between clients and advisers. Arguing that support has tended to be too prescriptive, he highlighted his concerns by stating that for any given programme clients *"might find up to 20% is valuable but you've got to put up with 80% dross to get that 20% worth of value"*. Another interviewee took a different line, believing that *"mechanical skills must be matched by entrepreneurial training - that is how do you change the attitudes of individuals?"*. He felt that one of the reasons why many firms had not developed beyond a certain level after two years was that they had not *"undergone that attitude change that takes them out of that very strict environment of mechanics into the big world of decisions, planning"*. He considered existing and past start-up support to have been inadequate in facilitating such an attitude change among owner-managers.

A further problem highlighted by respondents in relation to start-up provision was the insecurity caused by contracting arrangements with the TEC. Many complained that start-up contracts were too short and had often been broken, and two providers

pointed out the negative impact that this had upon their ability to plan or to invest in new staff or resources. An additional issue raised by one provider related to the poor quality of a small number of advisers. He felt that this damaged the credibility of all support services available and so had a knock on effect with regard to the use of further support schemes which might have been able to help developing businesses.

Believing that growth is primarily down to the individual owner-manager, one provider felt that, in the context of start-up, his main role was to make people aware that they might be exposing themselves to growth, and thus growth issues were not specifically addressed at the start-up stage. However, like other interviewees, much importance was attached to start-up provision. One Chief Executive in particular was passionate in his belief that care should be taken to protect the 'seed bed' arguing that *"if we're not growing new businesses, it might have an effect at the macro level"*. Further, he underlined the importance of encouraging good practices at an early age so that such practices will be instilled in firms forever to help them as they grow into larger businesses. Doing this at a later stage in their development would, he argued, be much harder, with change only likely to occur at a crisis point. Nevertheless, the overall message from support providers was that start-up support alone, whilst valuable in itself, does not adequately address the factors influencing post start-up business growth. On this, providers were in agreement with the owner-managers interviewed. Though providers inevitably drew attention to some institutional influences about which owner-managers were unlikely to be aware, there was also a fairly high degree of consensus as to the reasons for this. However more than anything else, the support providers felt that whilst aspects of start-up programmes might be of some benefit to growth and while the PFBC course may in some respects have begun to facilitate the development of more growth orientated businesses, without on-going follow-up support, growth issues could not be properly addressed.

### *The Role of Further Support*

Two major concerns were raised by the support providers interviewed in relation to the role of further support and its ability to assist with post start-up firm growth: owner-managers awareness of support and the lack of adequate further support available specifically aimed at small and young post start-up businesses. A number of interviewees concluded that there was a significant gap in current support provision which prevented such firms from receiving assistance which might help them to grow.

All of the training providers interviewed identified problems relating to owner-manager's awareness of further support. One who felt that a lack of awareness was the biggest problem faced by providers argued that there were insufficient funds available to ensure greater awareness. The two representatives of the support organisation interviewed disagreed about the cause of the problem. One felt that a *"plethora of...advisory organisations"* led to confusion among business people as to where they should go for help. The other argued that the real problem was the *"plethora of initiatives that are not explained fully enough"*. This view gained support from another Chief Executive who noted that the continually changing and developing nature of the initiatives available made it difficult for even the most recently established businesses to maintain awareness. Some support providers stressed that they attempt to address the awareness problem through their start-up programmes or associated follow-up sessions. In particular, it is pointed out that owner-managers are entitled to limited free BAS counselling. Nevertheless, one interviewee was of the opinion that most clients perceived support to cease after their start-up support ended. Another added that clients did not like to trouble support providers but instead go on doggedly because, as he stated, *"that's their nature, that's why they're running a business"*. This suggests that aspects of the

entrepreneurs psychology, and perhaps his desire for independence, affect his inclination to find out what support is available.

Related to issues of awareness are those of support use. Three interviewees mentioned that few firms chose to take advantage of the support available to them. In addition to owner-managers not being conscious of the support available to them, a number of other reasons for this limited use were proposed. Two pointed to a lack of time as a serious constraint. One suggested that this was a particular problem for firms with growth potential stating *"it may well be of course that we're skittering along amongst the people who aren't quite as busy as they should be, whereas the very people that we ought to be talking to we never see"*. The same interviewee also cited what he saw as the poor image of business counselling as a reason for limited support use. He felt that counselling was viewed as being something that you use if things are going wrong. This and a further interviewee who made similar comments also felt that a more general problem existed in the form of an anti-training culture in the UK. Another Chief Executive commented that a lack of cooperation with banks, accountants and other organisations in regular contact with small businesses was a problem. He noted that despite the fact that the services he provided were free, independent and impartial, such organisations rarely directed owner-managers to him.

Interviewees also highlighted the limited nature of support available as being a problem in helping firms to grow. This was regarded as being a particular problem for young and small post start-up firms. Again, a number of support providers stressed that any start-up client of theirs was a client for life, and advice would be given where possible. However, in terms of programmes or any formal support mechanism, a clear gap was identified by most interviewees. Other than BAS counselling which is limited to three free sessions, one Chief Executive stated that *"ultimately you don't have the continuation and care for that client"*. Although this

interviewee felt that the quality of BAS advice was good, another commented that the views of advisers were often out-dated.

Turning to the new Business Links, there was some hope that Personal Business Advisers might provide more effective support than BAS counsellors. Further, interviewees in general felt that the one-stop-shop approach for accessing information was a sensible one. However, though all were keen for the Links to succeed (indeed most were actively involved in their development), there were strong doubts about its potential for assisting young post start-up firms. Most focused on the Links' objective of providing support for target firms employing more than ten people. It was felt that if this objective was pursued, most post start-up businesses would effectively be excluded from receiving support. There was however some expectation that the predominance of micro firms in the two counties would force the Links to help slightly smaller firms too. Yet one interviewee suggested that even if this was the case, the relative lack of free help available through the Links would mean that small businesses would not be able to use the service. However, another Chief Executive hoped that if Business Link is to focus on the larger, more established firms, this might enable support organisations like his to concentrate more fully upon the needs of smaller firms. Another interviewee stressed that the Links must be sensitive to local needs if they are to be of any benefit, but felt that they had particular potential as tools for bringing together and coordinating the activities of diffuse agencies to create "*centres of excellence*" and, in doing so, help to produce a "*critical mass*" in relation to business development through cooperation.

Other more general reservations relating to the Links concerned the staff employed. There was general agreement amongst four interviewees that there was a danger that the wrong people were being taken on. One pointed out that business people needed to be employed in order to ensure that there was not a "*civil service culture*".

Another was less candid, stating that Business Link *"had a real jobs for the boys feel about it"*. It was clear that interviewees felt the credibility of the initiative could be undermined by this. Nevertheless, one added more hopefully that *"Business Link could, if it takes on the right people and they can keep focused...go some way to changing that [civil service] culture"*.

A concern that was more specifically related to the needs of young post start-up businesses reflects the recurring point made by interviewees that an on-going client-support organisation relationship is important to the effective provision of assistance to firms and thus to their attainment of growth. Two interviewees in particular felt that the maintenance of such a relationship was made more difficult by the development of Business Links. One stated *"the effective sequestering of the money in fact broke a lot of relationships which could have helped a lot of companies to grow - people who had good established relationships with Enterprise Agencies"* and further *"if you're not careful, you create a vacuum in there...the start-up programme doesn't have the on-going counselling, Business Link isn't reaching back and the Enterprise Agencies are trying to survive where they can"*. Whilst it is possible that such views might be tainted with a degree of bitterness, it is nevertheless apparent that there is a genuine concern that no framework is in place to facilitate the continuation of potentially fruitful client-support provider relationships with post start-up businesses.

Overall, the interviews carried out with support providers would seem to confirm the perceptions held by many of the owner-managers that there is very little support available which would be of use to young post start-up businesses. They also demonstrate that the problem of a lack of awareness shown to exist in the owner-manager interviews is recognised as a serious one by support providers. What the interviews with support organisations have also been able to show is that there are mixed feelings about the ability of recent developments in business support to



address the development needs of the group of firms being studied. In particular, there is a concern that the on-going client-support provider relationships that organisations have been able to develop in the past may, in the absence of any new programmes specifically designed to help small post start-up businesses, be being damaged through the establishment of Business Links. As a result, problems of awareness might persist and growth potential micro firms that could have benefited from assistance might not receive the help that they need.

#### *Support Improvements to Assist Post Start-Up Firm Growth*

Like the owner-managers, the support providers interviewed proposed a range of ideas for assisting post start-up businesses to grow. In most cases these reflected their previously outlined views regarding the inadequacies of existing support both during and after start-up.

Two of the providers stressed the importance of maintaining and enhancing assistance at start-up. Both felt that changes relating to the system of awarding grants would be of particular benefit. One suggested that grants should be replaced by loans in order that firms could be given ownership of their financing problems, enabling them to become sufficiently capitalised to afford expansion. The other proposed that since the grant was so small, it was of little use to most firms and would therefore be better spent on funding additional training and on-going schemes. However, when this suggestion was put to some of the other interviewees, they felt that there was a need to retain some financial support for start-ups. Both interviewees were concerned that there should be an emphasis on creating better quality start-ups with one in particular emphasising that if one is successful in having an early influence on the operations of a business, then good practice will be carried forward, aiding the development of businesses during later stages. This Chief Executive stressed the importance of providing entrepreneurial training in

addition to training on the 'mechanics' of business. The other interviewee felt that a key obstacle to the development of quality start-ups was the suitability of the potential owner-managers themselves and was critical of the continued emphasis upon the AT eligible for TEC funded schemes. Each of the two interviewees was strongly of the opinion that there should be a renewed emphasis on start-up support provision because they felt that the economic and social needs of the areas that they served required this.

The main theme common to the responses given by all interviewees was the perceived need for improvements in the provision of on-going follow-up support. Again an underlying concern evident in most answers was for the maintenance of a client-support provider relationship over time. One provider called for a *"second, third and fourth year of assistance to firms through people like ourselves who've built this relationship up because they've got to know and trust us"*. Ideally, he felt that aligned to this there should be more of an effort to *"outreach"* firms, building up relationships with growing firms who would otherwise be too busy to meet advisers. However, he noted that this would be very expensive in terms of both money and time and no such on-going scheme had ever been funded by the TEC. Another interviewee who favoured on-going training rather than on-going counselling support identified a practical reason why it would be difficult to create such a programme focusing on growth issues. Arguing that a regime of help spanning two to three years would be needed for an on-going programme to be effective, he felt that uncertainty relating to TEC funding and contractual arrangements would be prohibitive since they did not allow for the degree of forward planning that would be required. Difficulties relating to funding from alternative sources were also identified by a different interviewee. She pointed out that the further education funding used to establish the PFBC scheme was restrictive in the amount of training that each participant on the scheme could receive in one year. Thus although a new scheme was currently being proposed suited to

businesses in their second year which would use this source of funding, this would still leave a gap of perhaps nine months between the start-up course and any subsequent post start-up course. It was felt likely that unfunded counselling would have to be offered to firms during this period in order to address their on-going needs on an individual basis. She stated that there was "*optimism that maybe we can offer them more advanced business training then for people in young established businesses*". However, there was a clear suggestion that within this support organisation at least, such future developments would result in increasingly less reliance upon DCTEC involvement. It was stated that the use of alternative sources of funding for start-up support had led to the development of a programme which was driven by the agencies themselves rather than the TEC and so was more closely aligned to the needs of local firms since, it was argued, the agencies have a better understanding of what these needs are.

A suggestion that came from three support providers was for an on-going 'mentoring' type programme. This, it was suggested by one Chief Executive, would focus upon skill shortage identification and "*flexible remedial support*" which could be provided at times convenient to the owner-manager. This interviewee did not feel that on-going training delivered in a classroom situation was suitable for post start-up businesses. However, he did feel that the objective of achieving growth could be built in to an owner-managers initial business plan, where it is recognised that a firm has growth potential, by setting appropriate "*milestone*" targets for each individual firm. These would not relate to the financial position of the firm but to the development of appropriate managerial practices. The interviewee further suggested that banks could play a more proactive role in monitoring a firms development and growth by encouraging it to reach the milestones that have been set.

Another of the interviewees took a different view of the way in which a 'mentoring' programme might operate. He felt that in building an on-going rapport with

businesses on a one to one basis, the emphasis should be upon providing a reactive service. Stating that "*business people don't actually need...heavy interventions - they just need a little fine tuning from time to time*", he argued that too much prescription should be avoided and instead advisers should become more responsive to the varying individual needs of firms. He felt that if support was less programme led, there would also be less need for schemes to be so frequently changed, thus ensuring greater certainty and continuity of supply. In developing a responsive service, the interviewee felt that success would depend upon his ability to take on to the agency's staff good quality advisers. However, given that each adviser could only take on a limited number of businesses before their effectiveness would diminish, problems were foreseen in gaining sufficient funding to ensure that enough advisers could be employed in the long term. A third interviewee raised a similar point by suggesting that there would exist a pressure with any on-going mentoring programme to set targets relating to the number of firms receiving support from each adviser and that this would have a negative effect upon the quality of support received.

Before firms can receive help to assist in their growth and development, they need to be aware that services are available to them. Two of the Chief Executives interviewed felt that awareness of support services needed to be improved in order to help develop closer contact with potential growth firms. Both suggested that this could be best achieved through face to face contact with owner-managers. One also felt that other organisations such as banks and accountants had a role to play in directing firms towards the support organisations. A further interviewee argued that what was *not* needed was further TEC corporate advertising. He felt that there was a danger of a credibility gap developing because funding cuts did not equate to the image being presented by such advertising. He argued that if the support on offer was not viewed as being credible, it would not be used.

Two interviewees felt that in order for support providers to more effectively meet the growth needs of post start-up firms, the attitudes of support users needed to change. Both identified an anti-training culture in the UK and saw this as a problem which needed to be addressed. However, different solutions were proposed for doing this. One felt that the government should legislate for *"a small business levy akin to the old Training Board levy"* to be introduced arguing that *"you have to give them [small business owner-managers] a sense of accountability to their own development"*. The other felt that cultural changes would be best brought about by going into schools and influencing attitudes towards business and self-employment at an early stage.

Noting like others the time constraints faced by owner-managers of growing firms, one interviewee felt that the delivery of on-going training should be more flexible in terms of the time at which sessions are held. However, funding constraints in practice restricted the ability of her organisation to run such classes other than at full cost. Another interviewee felt that whilst evening classes might be more convenient for owner-managers, psychologically the evening was the wrong time of day for training sessions and gave less contact hours within which to cover the necessary ground.

Finally, two support providers felt that measures other than those associated with advice and training were also required in order to assist young post start-up businesses to grow. One stated that transitional relief schemes for employing workers (such as that previously provided by the Second Step scheme) and for the payment of business rates were required. The other felt that more investment in the regions infrastructure was a necessary prerequisite for the future development of growth businesses, stating that *"often we get the balance wrong, targeting too much and putting too much of an emphasis on the entrepreneur where we're not providing infrastructure actually for them to achieve or to perform"*. A particular concern of

this interviewee was that there should be an improved transport and communications network within his county.

Once again, the views of the support providers were in some respects very similar to those of the owner-managers interviewed. In particular, interviewees from both groups identified a need for improved on-going support and for support to be individual and focused upon the specific needs of firms. However, two key differences are apparent from the responses given. First, whilst owner-managers see the provision of financial assistance as being important to their future growth, the support providers are more inclined to see purely training or advice based solutions, with some even suggesting that grants should be done away with or replaced by loans. Here then there is a clear gap between what businesses want and what support providers feel that they need. Secondly, although both groups identified a need for on-going and individual support, the support providers were clearly a lot more aware of the practical difficulties involved in actually delivering such support. In particular, a number of significant institutional and funding constraints were highlighted.

Overall, the in-depth interview evidence generated during the third phase of the research has given a fresh perspective on a number of central issues. A close examination of the nature of post start-up firms interviewed has revealed that these differ considerably from the type of growth businesses described in much of the small business literature. Most are very small and in some cases, the jobs that they create are either part-time or non-permanent. As was also the case to a lesser degree with the survey based research, this raises the issue of whether we can reasonably draw on the evidence accumulated about these firms to comment on the issue of growth. One must conclude that the evidence is considerably weakened by the nature of the firms examined. Indeed, given the apparent lack of firms experiencing substantial growth within the chosen sample frame, one might further conclude that

in most cases, it is inappropriate to consider the development of young post start-up businesses in terms of employment growth.

Nevertheless, the evidence provided does allow consideration to be given to the construction of a more effective support framework for post start-up firms which aims to facilitate their general development whilst recognising the relatively limited potential for growth amongst most firms. In other words, a more appropriate and realistic basis for assisting post start-up businesses can be developed. In the next Chapter, interview evidence, along with that generated by the the first two research phases, is reviewed and used to develop such a framework.

## **CHAPTER 8**

### **DEVELOPING A FRAMEWORK TO SUPPORT DEVON AND CORNWALL'S YOUNG POST START-UP SMALL FIRMS**



## 8.1 Introduction

Results presented in earlier chapters generate additional understanding of both the extent of growth among young post start-up businesses in Devon and Cornwall and the factors perceived by owner-managers to most critically influence their firm's growth performance. The second questionnaire and subsequent interviews clarified the extent of the contribution made by support provision in addressing these factors. In-depth interviews have revealed the different perspectives of owner-managers and support providers with regard to the question of how support provision might be improved. They have also highlighted some of the constraints likely to be encountered. This chapter assesses the implications of the results outlined in previous chapters and seeks to satisfy the sixth aim of the research, namely to utilise the views of owner-managers and support providers, along with the understanding gained through satisfying Research Aims 1 to 5, to evolve changes and improvements in the existing small business assistance framework.

To achieve this aim, the chapter first outlines the key results of the research as they relate to each of the first four aims of the study. Their implications with regard to the provision of support to post start-up firms are explored in relation to both the targeting of assistance and the content and delivery of support provision. The requirements for an effective regime of support to fill the gaps identified are outlined. Finally, these requirements, along with insights gained through the achievement of Aim 5 of the study, are drawn upon to present a support model for young post start-up firms in Devon and Cornwall. It is argued that certain revisions to the current support framework are required. These changes would aim to create a framework which is open to all firms whilst at the same time ensuring that the few post start-up businesses with potential for growth are able to receive the quality of assistance required to enable this potential to be realised.

## 8.2 Research Results: Summary and Discussion

### *Alternative Approaches to the Targeting of Support*

Evidence relating to post start-up firm growth was generated by the two questionnaire surveys and has been complimented by in-depth interviews. Survey results show that employment growth was confined to a small proportion of firms (16.2%). Weak associations were found between high employment growth and prior business ownership, high growth ambitions and the use of business planning. Discriminant analysis demonstrated that selected factors were relatively poor predictors of growth. Nevertheless, the data tends to suggest that there is some relationship (if relatively weak) between the 'seriousness' of a venture (defined in terms of planning effort, growth ambitions and form of ownership) and growth in number of employees. However, difficulties relating to the effects of mutual causation mean that only the weak association between growth and the owner-managers prior ownership experience can be accepted with confidence. This fact, when linked with the limited success of discriminant analysis, means that effective targeting of support towards those firms most likely to grow on the basis of objective, readily measurable characteristics would be difficult to achieve. This conclusion was further validated during interviews with support providers.

Survey data show growth ambitions of owner-managers to be modest. Furthermore, the proportion of firms desiring zero growth increased considerably between the first and second questionnaire, suggesting a downward adjustment of expectations over time. Subsequent interviews with support providers reinforced these quantitative results. Some interviewees pointed to the region's role as an area for retirement and recreation as having a particular impact upon growth aspirations. Many owner-managers seek to develop businesses that leave adequate time for the pursuit of leisure activities. Thus the "*rural lifestyle factor*" identified by Townroe

and Mallilieu (1993) needs to be taken into account. Whatever the reasons for the limited growth ambitions observed, it is clear that these limited intentions must be considered in developing any support framework. Firms cannot be forced to grow. Nevertheless, quantitative analysis did show that growth ambitions do vary between firms, presenting a possible opportunity to target support on the basis of a firm's commitment to growth. In particular, differences occurred between sectors, with manufacturing firms and retail businesses both exhibiting stronger growth ambitions. There was also some evidence to suggest that firms that had grown in the past were more likely to want growth in the future. Interviews with case businesses tended to support this evidence, although scale of ambition varies considerably. Most interviewees agreed that an owner-manager's attitude to growth was a key influence upon the actual performance of the firm. Testimonies regarding the development of their businesses appeared to confirm this claim.

Discriminant analysis carried out upon the survey data showed some success in distinguishing between firms with different employment growth ambitions. However, the function proved ineffective in identifying non-growth oriented businesses and furthermore was based purely upon a measure of owner-manager financial aspirations. Consequently, it must again be concluded that the use of easily measured company or owner-manager characteristics as a basis for targeting is inappropriate.

Results relating to actual business growth and growth ambitions present a familiar dilemma in terms of their implications for policy. On one hand, the fact that relatively few firms desire and/or achieve growth in employment size suggests a need for support to be targeted. On the other, the limited capacity of discriminant analysis to distinguish growth capable firms would appear to prevent the use of objective characteristics, measured during the earlier stages of business development, as a basis for more effectively targeting small firm support schemes.

This dilemma has been identified by other researchers. Consequently, some conclude that efforts are best focused upon older, more developed businesses whose past growth record might facilitate better informed and therefore more effective targeting of resources (e.g. Stanworth et al, 1992). This option, which has appeared to have gained some degree of favour amongst policy makers, would to an extent have the effect of marginalising younger and smaller businesses within the business support framework. At the other extreme, if one accepts that targeting is very difficult, then the only possible solution is to offer support to all new businesses (Birley, 1986). However, the drawback of this option is its prohibitively high cost.

Quantitative and qualitative results from this research relating to the association between growth ambitions and actual growth, when linked with insights provided by previous research (Davidsson, 1991), lead to the generation of another alternative policy response. Davidsson (1991) proposes that in small businesses, actual growth is partly determined by an owner-manager's growth motivation which in turn is determined by perceptions of a range of 'growth-relevant' factors, categorised by the author as pertaining to Ability, Need and Opportunity. His analysis implies that growth motivation and actual growth might be affected in a positive way by attempting to address these owner-manager perceptions. Thus from a targeting perspective, issues of past growth or current growth motivation are only of partial relevance. Questions of equal importance to policy makers concern which factors owner-managers perceive to influence post start-up business growth and, more particularly, to what extent it is possible for us to address them.

Surveys and subsequent interviews indicated that many of the factors regarded by owner-managers to be of greatest importance in influencing growth are either external to the firm or are related to the owner-managers self-image perceptions. These factors are not as readily addressed within a support regime where the primary focus is competency development. This problem presents policy makers

with two main options. The first would be to radically alter current approaches to support provision to incorporate, for instance, techniques such as achievement motivation training (AMT) (to address some owner-manager centred factors) with concurrent emphasis on infrastructural development to resolve external issues. However, a number of potentially important influences (e.g. owner-manager age, previous business experience) would clearly remain unaffected in a direct way by any form of support provision and so owner-manager perceptions of their importance would be difficult to change.

A second option would be to restrict assistance to those firms for whom the factors to which their owner-managers attach greatest importance are most likely to be adequately addressed by existing forms of support. Thus support might be aimed at those firms whose owner-managers perceive internal factors, broadly associated with managerial competencies, to be important influencers of business growth. By ensuring that the needs of targeted firms are closely aligned with the strengths and capabilities of existing support, targeting this type of firm would strongly motivate their owner-managers and thereby positively influence chances of achieving actual employment growth.

Using cluster analysis and Pearson's chi-squared test, this study has shown that significant differences do exist between firms in relation to the perceived importance of 'internal' factors. However, though discriminant analysis was moderately successful in distinguishing between clusters, a reasonably large proportion of cases were still wrongly classified. An examination of the differences between successfully and unsuccessfully classified firms suggests that the effectiveness of the function also varies between types of firm.

Table 8.1 shows the discriminant classification success rates associated with targeting on the basis of employment growth, employment growth ambitions and the nature of owner-manager perceptions of the factors influencing growth.

**Table 8.1 - Targeting: Summary of Discriminant Analysis Results**

Targeting Approach	Selected Cases Correctly Classified (%)	Non-Selected Cases Correctly Classified (%)
Employment Growth (2 Cluster Groups)	66.99	59.38
Growth Ambitions (3 Cluster Groups)	50.00	63.77
Ability to Address Factors (2 Cluster Groups)	71.96	61.76

In relation to the perceptions based method of targeting, discriminant analysis results suggest that whilst in theory the proposed approach is sensible, in reality the failure of quantitative analysis to provide a reliable way of identifying target firms limits the viability of any practical application. Nevertheless the approach does add a new perspective to our existing understanding of how firms might be more effectively targeted, particularly in the context of a resource constrained support system. Overall however, and for each of the three approaches outlined, the failure of statistical analysis to utilise objective characteristics to produce a means of effectively classifying firms strongly suggests that if targeting is to occur, it cannot be on the basis of a quantitative measurement tool or structured audit approach.

## *Support Design and Content*

Implications for the design and content of future support arise from results concerning the factors influencing small business growth, the adequacy of start-up support and the role of further support in assisting post start-up business growth. In relation to content, the negative support gaps identified by inter-survey comparisons using Pearson's chi-squared test provide the best indication of where the focus should be in terms of developing support which is appropriate to the aim of assisting post start-up firms. Many areas associated with negative gaps have a particular relevance to growth firms. Despite the possible limitations arising from the small number of growth firms in the survey, the gaps identified provide a useful picture of the key drivers of growth. This is because for many firms, they relate to those factors of importance to their constrained growth performance.

Some of the larger gaps recorded relate to employing and developing the skills of workers. Another is associated with developing a corporate culture. These all emphasise the importance of *human resource management* issues in growth oriented support provision. Others demonstrate the continuing importance of certain *financial management* issues such as the related problems of managing cashflow and debt management. In terms of its perceived effect upon business growth, internal financial management appears to be a greater area of support and training need than obtaining external funding. This seemed also to be validated by the limited reference made by the interviewed owner-managers to the problem of undercapitalisation.

Additional areas where negative gaps exist can be identified as those relating to *strategic product-market development* (developing new products, entering new markets, long term planning, setting competitive prices and achieving quality standards), *developing technological and non-tangible resources* (access to

networks, access to know-how, access to technology), *developing market knowledge* (marketing products, understanding your market) and *physical* (or labour) *expansion* (expanding productive capacity). Interview evidence in particular supports survey results relating to the importance of product quality and competitive strategy. This is also the case in relation to owner-manager related issues. By far the largest support gaps identified through the survey based research relate to the *owner-managers personal development* and in particular the development of interpersonal and communicative skills, dealing with work pressure and maintaining motivation. Owner-manager interviews meanwhile stressed the particular importance of the business owner's personal ambition. Together, survey and interview evidence suggests a need to ensure that the focus is not purely upon cognitive skills development.

The existence of a gap between support needs and the adequacy of support provision is demonstrated by the effectiveness of the inter-survey discriminant function. The low adequacy ratings awarded by owner-managers in relation to the ability of start-up support to address the factors outlined above suggest that many firms would gain particular benefit from support designed to assist in these specific areas.

However, in recognising areas of support need, it would be unwise to ignore the considerable variation between firms which was a feature of results from the first questionnaire relating to the factors of importance to growth. This can be contrasted with the limited variation seen in relation to responses concerning support adequacy. Indeed it might be argued that predominantly low adequacy ratings are a reflection of the perceived inability of start-up support to address diverse and varying needs. Using Pearson's chi-squared test and cluster analysis, variations in owner-manager perceptions of start-up adequacy were shown to be associated only with prior ownership, location (urban or rural) and educational attainment. Significant



differences in the importance of factors were shown to exist between businesses in relation to a range of different company, owner-manager, planning and performance characteristics and business objectives. Considerable variation between firms was also apparent from owner-manager interviews, with each individual interviewee citing a set of influences that was largely unique to their firm. Given that heterogeneity is not well served by blanket prescriptions, the clear implication for policy is that aspects of support provision need to be individually tailored to the requirements of each firm. This in turn has implications for the delivery of support.

One possible option would be to adopt a more segmented approach to support delivery. Chi-squared results suggest that segmentation would most usefully be based upon industrial sector, employment growth, employment size (at 12-36 months) and employment growth ambitions. The limited variations in perceptions of adequacy observed suggest that segmentation on the basis of prior ownership experience, location and educational attainment could also be beneficial. The fact that not all of this information would be available at start-up has implications with regard to the most appropriate stage of development at which any segmented support should be made available. Whilst start-up support might usefully be segmented according to industrial sector, ownership experience, location, education and perhaps the number of people employed at start-up, further segmentation of the market would only become feasible after twelve months. This suggests that if a segmented approach is to be pursued, an on-going element to support would be desirable. However, as highlighted by other research (Deakins and Ram, 1995), limited support provider resources would be a constraint. Further, given the diversity of variations between responding owner-managers with regard to their perceptions of the importance of different factors, it seems likely that some firms would still not have their needs addressed through this approach. Given this, and notwithstanding the practical difficulties involved, the ideal would be to address support needs after start-up on a one-to-one basis.

With regard to the adequacy of existing start-up support, interview and survey findings suggest that whilst support is generally viewed to be inadequate in terms of addressing those factors influencing the growth performance of post start-up businesses in the period 12 to 36 after start-up, there is widespread agreement that it is effective at helping businesses in the initial stages of becoming established. This is recognised by Storey (1994) amongst others in relation to survival rates. Evidence from inter-survey comparisons also supports this conclusion. Factors associated with positive gaps can be categorised as relating to 'the basics' of establishing a small business, which are likely to be of common interest to all new firms (e.g. market research). Negative gaps were in many cases associated with less generalised areas of concern. This once again suggests that it is in the meeting of more *individual* business needs that the inadequacies of start-up support can arise.

A further observation regarding the nature of responses relates to the noticeably large proportion of firms choosing the neutral mid-scale response category. One possible interpretation of this phenomenon is that owner-managers were indifferent about the adequacy of the training and advice because they were primarily interested in the grant element of the support. This interpretation is supported to an extent by evidence from some owner-manager interviews. This clearly raises issues about the reasons why people participate in start-up programmes and whether grants are an effective inducement to encourage people to develop growth oriented businesses.

In-depth owner-manager interviews provided qualitative evidence to support the view that start-up support is inadequate in addressing the factors influencing the growth of young post start-up businesses. They also provided an insight into the possible reasons for this. Some correspond closely to the inferences made from quantitative data. In particular, it was commonly felt that support took little account of the individual nature of the factors perceived to influence the growth of different firms. Some respondents argued that because factors were so specific to individual

firms, it was unlikely that support could ever be able to address them. A number of owner-managers also pointed to the limited nature of on-going assistance after start-up programmes as a problem. Among the few faster growth businesses examined, a lack of time to take advantage of that support which is available was also identified as a particular constraint.

Differences of opinion between owner-manager and support providers regarding growth relevant factors may be another possible reason for identified inadequacies. Little mention was made by support providers of product/service quality, the owner's previous work experience or competitive positioning strategies whereas owner-managers considered these to be very important issues. Hence given differences in the perceptions of the two types of respondent, it is perhaps not surprising that owner-managers feel that the factors influencing their growth performance are not being adequately addressed by the support providers.

Other reasons raised by support providers can be broadly labeled as being institutional in nature. In particular, the focus upon survival targets for start-up programmes and the uncertainty resulting from what are regarded as unsatisfactory contractual arrangements with DCTEC would appear to work against the development of growth businesses. Some providers also agreed with owner-managers that support inadequacies in part reflect an overtly mechanistic approach to start-up provision and the limited scale of on-going assistance.

These results do seem to point towards a need for (a) greater individuality in the provision of support and (b) on-going assistance in the period 12 to 36 months after business start. It is apparent from the research findings that certain inadequacies in support provision for post start-up small firms stem from the *style* in which start-up support is delivered. If the content of support is to be appropriate to the needs of a specific firm, the variations in the perceived importance of factors influencing

growth suggest that attention should be given to the style of delivery rather than to content alone. In order for this to occur, it also seems likely that issues relating to the broader institutional support framework will need to be addressed; namely the targets and objectives set for start-up programmes and the contractual arrangements between DCTEC and its providers. However in proposing any changes, care must be taken to ensure that the success that start-up programmes have had to-date in relation to the initial establishment of businesses is not undermined. Hence particular consideration will need to be given to how the potentially conflicting objectives of business survival and business growth can be reconciled. Here the role of on-going support after start-up is likely to be important.

A key objective of this study was to establish whether support gaps identified in relation to start-up were being filled by the forms of on-going support available at the time of the survey. In relation to the use of further TEC schemes and initiatives, most owner-managers were aware to some degree of the support available. Nevertheless, a significant minority remained unaware of any schemes and only a very small proportion of firms used any form of further support. Of those that did seek assistance, the largest proportion did so to help them grow and most reported the support to be 'useful'/'very useful'. Among those that did not use any further TEC support, the most commonly cited reasons were (a) a lack of any problems or any perceived need for assistance, (b) a lack of awareness of support and (c) use of other non-TEC sources of help. For those firms using the latter form of help, most relied on traditional sources such as banks, accountants, friends and/or business contacts. However, a significant minority again sought no such assistance at all.

Given the apparent utility gained through support by those making use of it, an initial examination of these results suggests a need to address both the low levels of usage of support and the prevailing gaps in awareness.

Specific policy implications arise from the variations seen in the responses given by owner-managers and from issues raised during interviews. The gaps in awareness of TEC schemes observed amongst a minority of firms would appear to have serious implications if access to further support is to be through a one-stop-shop mechanism. Quantitative results highlight the characteristics of firms for whom awareness of broad 'signpost' schemes (BAS, Business Link, DCTEC Information Points) is more limited. They suggest that marketing efforts to improve awareness might usefully focus on people with limited employment experience, young owner-managers, sole traders, females, those with lower academic qualifications and/or those based in Cornwall. Meanwhile there is some evidence to suggest that awareness of more specific or specialised schemes, such as Workstart and Second Step, is reflective of different company objectives or performance outcomes. This in turn implies that awareness of these more specific initiatives results from a particular need for such assistance, indicating that for the most part, owner-managers who require particular sorts of help are able to access information about relevant schemes through the available single stop channels. However, for such a mechanism to work effectively for all owner-managers, the evidence suggests that awareness of broad support access point initiatives amongst the groups identified needs to be enhanced.

Chi-squared results provide some indication of how awareness of further support might be improved through start-up programmes. Awareness of BAS support is positively associated with owner-manager perceptions of start-up support adequacy in a number of areas. This suggests that a positive support experience at this early stage is of importance to future support awareness. Furthermore, adequacy in addressing motivational issues in this period also increases the likelihood of owner-managers being aware of further support. Assuming that awareness among small businesses is required for a support regime to be effective, these findings indicate

that an adequate start-up programme is an important foundation for an on-going support process.

Despite this evidence, other researchers have been skeptical of the value of 'one-stop-shops' as a reliable access point to support (Curran, 1993; Vickerstaff and Parker, 1995). Further, they question the worth of large scale marketing campaigns to improve awareness of single stop access points. Thus it may be that the awareness gaps identified by this study would be best addressed through the adoption of more proactive mechanisms.

Response variations relating to the use of support appear to confirm the importance of support awareness, particularly of the Business Advisory Service, to the use of further assistance. However, observations that were statistically non-valid due to a limited sample size provide some indication that the relationship between perceptions of start-up support adequacy, further support awareness and further support use might be more complex than suggested by earlier results. Results suggest that *negative* perceptions of start-up adequacy are associated with higher levels of further support use. Given that awareness is a prerequisite for use, this indicates that owner-managers may react in different ways to negative perceptions of start-up support adequacy. Some dismiss any likely benefits from further support and 'blank out' awareness, whilst others improve their awareness in order that they might remedy start-up support inadequacies by making greater use of additional support. Given that those firms who feel the need to remedy perceived support inadequacies are likely to search out further support of their own accord, it seems logical that it is those whose awareness is negatively affected by perceived inadequacies who should be the focus of attention. Earlier results suggest that sound start-up provision which effectively addresses motivational issues combined with proactive efforts to improve awareness, particularly amongst the groups identified, are both important here. At the same time, it should be borne in mind that such a

strategy is only likely to promote greater support use if owner-managers expectations regarding the type of further support that *should* be available are matched by the reality of what is *actually* available to them. In other words, the scale and content of any on-going support must be seen to be adequate.

In the case of both reasons for the use of further support and the non-use of further support, no valid significant variations resulted from chi-squared tests. However, one non-valid result provides some evidence to support earlier findings. 100% of clustered firms that tended to regard start-up support to be inadequate and who used further support did so in order to assist growth. Although further research would be required to confirm this conclusion, the result suggests that those firms who react to perceived start-up inadequacies by seeking out further support tend to be growth oriented. Other results show that the greatest proportion of firms seeking support to aid growth are located in urban areas and have support concerns of a spatial nature. This leads to the tentative suggestion that some degree of association exists between demands for growth oriented further support and an urban location. Furthermore, premises related assistance is likely to be of particular interest to this group of firms. This evidence appears to contradict earlier findings by O'Farrell and Hitchens (1988), Keeble et al (1992) and Townroe and Mallilieu (1993) which link premises constraints to a rural location. As such it strengthens the argument that the features of particular localities are at least as important as whether a firm is located in an urban or a rural area (Chell, 1988).

Turning to reasons for the non-use of further support, though no significant differences were valid due to sample size limitations, there was an observed tendency for those who thought start-up support to be inadequate to choose reasons which were broadly negative and those who felt support to be adequate to choose more positive reasons. Results suggest that those who view support at start-up to have been inadequate tend to state as a reason for non use of further support their

poor opinion of the support available. This appears to validate earlier inferences relating to dichotomous reactions to perceptions of start-up provision. Survey data also indicates that growth firms are less likely to state as a reason for non-use that start-up support was sufficient for their needs. However, a rather greater proportion of businesses of this type give the explanation of a lack of time. This suggests that whilst growth businesses need more help than was possible to provide at start-up, their success limits the time that they have to pursue support opportunities. If this problem is to be addressed, particular consideration needs to be given to the way that assistance can be delivered in order that the opportunity cost of using support is minimised.

Sample size prohibited any attempt to demonstrate statistically valid significant differences in the second survey on the usefulness of further support. However, the fact that 100% of manufacturing firms that had used further assistance found it 'very useful', whilst far more variation in opinion existed for firms in other sectors, may indicate that sectoral inconsistencies exist in the quality of further support available to businesses. In particular, the results suggest that further support might be usefully developed to ensure that the specific needs of service sector firms are better addressed.

Findings concerning the use of non-TEC support sources demonstrate that whilst owner-managers may be reluctant to use further TEC coordinated schemes, most are users of more traditional sources of advice such as banks and accountants. Given this situation, a greater role might be envisaged for such organisations in directing small business owners towards TEC or Business Link services where this is deemed to be of potential benefit to them. One group of firms that, it has been tentatively suggested, make less use of TEC services are those that have a broadly positive perception of the adequacy of start-up support. Additional findings have shown that positive perceptions of start-up adequacy in addressing certain factors are associated



with greater use of non-TEC sources of assistance. Thus for this group of firms who are currently under utilising TEC support, referrals from banks and accountants might have a particularly important effect on future support use. Other results meanwhile show that those firms that have achieved or want to achieve growth are more likely to regard access to external finance as an important growth issue. Assuming that this results in close contact with bank managers, it is possible to conclude that banks can play an important role in referring growth oriented firms to providers of support. Interview evidence shows that some support providers believe there is a need for greater coordination with private organisations in order to improve small businesses awareness of support. Furthermore, given that views expressed by owner-managers about the role of banks and accountants were often negative, it is likely that small firms would be keen to receive advice from an impartial support provider from outside of the financial services industry.

Other important sources of advice were friends and networks. Results suggest that informal channels are particularly popular among female owner-managers and the owner-managers of younger firms. However, owner-manager interview evidence suggests that among growth businesses, there is considerable concern about the possible disadvantages of networks and that they are only used where direct benefits can be seen.

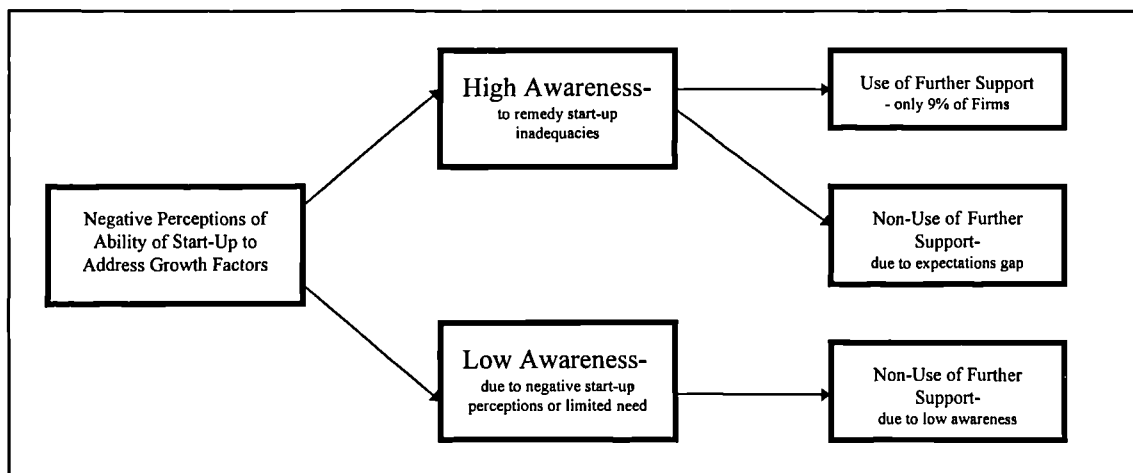
Some association was shown to exist between moderate satisfaction with profits and the use of these sources of advice. However, it is possible that their use is a result of a preference for informal approaches to seeking advice among 'satisficer' owner-managers rather than moderate levels of profit being attained through the use of networks. The same can also be said with regard to the use of banks and accountants as sources of advice. If firms perceive that there is no need to seek more formal support or that start-up support was adequate for their needs, they are more likely to rely purely on what might be regarded as more informal contacts. It would clearly

be illogical to spend resources attempting to encourage firms to use TEC or Business Link schemes if their needs can be satisfied by free services provided without the use of public money. This view is supported by earlier results relating to the reasons for the non-use of TEC support services. However, further results show that it is not only the one person businesses but also the larger of the small firms surveyed that are most likely to use the non-TEC services listed in the questionnaire. Thus it would be equally wrong to assume that firms using non-TEC sources do not need or would not benefit from TEC coordinated schemes of post start-up support. In the case of business networks, interview and survey evidence suggests that it may be that very small operations make use of networks because of their informality and the limited support needs of their businesses whilst when growth oriented firms make use of them, it is because of the specific growth-related strategic advantages that they might offer.

A final issue concerning further support which was raised during interviews with both owner-managers and support providers was that there simply was not sufficient further support available to the group of firms being examined. Therefore to a degree, issues of awareness and support use were viewed to be of secondary importance. The majority of support providers identified as a potentially serious problem a lack of either on-going support schemes and/or counselling to bridge the gap between those firms receiving start-up support and those being targeted by Business Link. Meanwhile it was apparent from interviews with owner-managers that those who were most aware of the support available to them were less inclined to use it because they held the view that it was not sufficient to meet their needs. This evidence contradicts earlier quantitative results. However, since these earlier results might simply have reflected a truism (that is, awareness is required if support is to be used), it could be the case that interview findings show more accurately the actions of owner-managers. In doing so, they highlight the problem of owner-manager support expectations failing to be met by the support currently available to

young post start-up businesses. Therefore it can be concluded that the non-use of support results either from low awareness (caused by either negative perceptions of start-up support or very limited needs) or the existence of an expectations gap. This conclusion is conceptualised in Figure 8.1.

**Figure 8.1 - The Non-Use of Support: A Conceptual Model**



For the group of firms studied in this research, only 9.8% were able to have their needs and expectations met by the further support available (see Figure 8.1). Whilst a large proportion of these were seeking assistance to aid growth, interview evidence strongly suggests that for the more growth oriented firms questioned, the issue of scale and quality of on-going support is the most urgent problem from a policy perspective. Thus if one of the aims of post start-up support is to, where appropriate, help the type of firms under examination to grow, a primary task must be to design and implement a stronger programme of further support in order that existing gaps can be bridged. Only then would steps to improve awareness and use of further support be worth pursuing.

### 8.3 Developing Appropriate Support

The preceding discussion has argued that at start-up, a 'support gap' exists in relation to the ability of assistance to address those factors influencing post start-up firm growth 12 to 36 months after start-up. Furthermore, it has been contended that the support available after start-up support ends does not adequately fill this gap. Though poor awareness is identified as a problem, of greater importance in the eyes of most owner-managers and some support providers is the limited overall support available to young post start-up firms. Whilst non-DCTEC sources of advice might go some way towards addressing the requirements of many firms, particularly those with more limited support needs, interview evidence suggests that for others, additional help is urgently needed. Whilst results from each of the research phases is drawn upon, particular emphasis is placed upon interview evidence in developing an understanding of business support requirements.

#### *Support Requirements: Evidence from Surveys and Indirect Interview Questions*

The interpretation of survey results and of interview responses not relating directly to support improvements point to a number of policy requirements for the provision of assistance aimed at filling identified support gaps. In terms of the content and delivery of assistance, these requirements are as follows:

#### Content

*Start-Up: Basic Business Competencies* - start-up support is recognised by support users to be good at addressing basic competencies. It is also valuable in relation to awareness of on-going support. Any support developments aimed at encouraging growth must not be allowed to undermine this success.

*Owner-Manager Personal Development* - despite widespread agreement about the importance of communication skills as a factor influencing growth, owner-managers perceive that this is not adequately addressed at start-up. Similarly, other topics not adequately addressed include dealing with pressure and maintaining motivation. The fact that the largest negative support gaps identified through statistical analysis relate to these areas suggests that when designing support, in addition to cognitive, knowledge based skills, a need exists to focus upon interpersonal skills and personal development issues.

*Further Support: Growth Firms and Premises* - evidence from the small number of firms using TEC support leads to the tentative suggestion that many of those firms seeking further support in order to help achieve growth have concerns relating to their premises. Support provision will possibly need to address these concerns.

*Further Support: Sectoral Differences in Perceived Usefulness* - limited evidence on sectoral variations in perceptions of support usefulness suggests a need to improve the quality of support provided for service sector businesses.

*Further Support: General Availability* - survey and interview evidence suggests that there is insufficient financial and advisory support available to young post start-up businesses. There is considerable demand for a support mechanism which bridges the gap between start-up support and that available to larger small firms through Business Link. This support should be able to address the varying needs of post start-up firms, including the small proportion of firms with growth potential.

### Delivery

*Start-Up: Individual Support Needs* - it has been argued that the main reason why start-up support does not adequately address factors influencing growth is that the

factors of importance vary considerably between firms. Whilst this may suggest a need for greater attention to individual needs at the start-up stage, this has to be balanced with the equally important requirement to address 'business basics', something that existing schemes have been shown to be effective at. Given that results show a considerable amount of the variation in perceptions between cases to be associated with a relatively small number of variables, it has been proposed that the market segmentation of support delivery on the basis of these variables may be one way of addressing support needs in a more individual way. At start-up, observed variations suggest that segmentation might usefully be based upon the number of start-up employees and industrial sector. During the period 12 to 36 months after start-up, segmentation could be based upon employment growth, employment size and employment growth ambitions. However, other results show clearly that attempts to target firms on the basis of the similarity of their needs are unlikely to be any more than moderately effective. Some firms would still not have their perceived growth relevant needs adequately addressed. Thus the ideal would be to deal with individual business needs on an individual basis. Therefore if one of the purposes of support is to be more growth oriented, the evidence would appear to favour the extension of support to facilitate more substantive further assistance after start-up support ceases as the best design choice.

*Flexible Delivery* - survey and interview evidence shows that amongst better performing firms in particular, a lack of time restricts their use of further support. Given that results also indicate that such firms are likely to require further support because start-up assistance is insufficient to meet their needs, the necessity for flexible approaches to delivery is apparent.

*Institutional Context* - interview evidence shows the importance of ensuring that contractual and funding arrangements relating to the provision of support are conducive to the aim of developing growth businesses. Existing start-up targets

stress survival rather than growth. Whilst an emphasis on survival may be appropriate for most businesses, it may constrain the development of any emerging growth-oriented firms. Meanwhile, the short term nature of funding from traditional sources limits support provider planning horizons and inhibits the development of on-going programmes.

*Further Support Awareness* - once appropriate support for post start-up firms is in place, this research shows that there is a need to ensure that awareness of support, particularly among certain groups of firms, is maintained. Awareness of 'signpost' initiatives is the primary concern and results suggest that efforts to improve knowledge might usefully focus upon people with limited employment experience, young owner-managers, sole traders, females, those with lower academic qualifications and those located in Cornwall. Perceptions of adequacy in start-up provision are also linked to higher levels of awareness, thus underlining the importance of high quality start-up assistance in any on-going process of support provision. Overall however, incomplete awareness among owner-managers suggests that limitations might be inherent where a single stop approach is used alone. Thus a need for a more proactive mechanism is also apparent.

*The Role of Other Support Sources* - the importance of banks, accountants and business or social networks in providing support for post start-up businesses is highlighted by the research findings. Evidence also suggests that they might play an important role in establishing contact with firms, particularly those that currently make limited use of TEC services and those that have achieved or want to achieve growth. However, interview responses indicate that at present, cooperation between banks, accountants and support providers is limited. Thus an important requirement for any support development is to make effective use of such organisations as integral elements of the provision framework.

The requirements outlined above provide a basis for beginning to develop a suitable support regime for the development of businesses in the immediate post start-up period. A further consideration however is that of targeting. This research clearly points to the limited viability of any proposals for 'picking winners' on the basis of easily observed objective characteristics. As a results, it must be concluded that support should be inclusive of all post start-up firms. However, this in itself does not preclude the appropriate allocation of greater resources towards particular firms within the context of any proposed support regime. It simply means that such allocation is unlikely to be effective if based upon objective criteria alone. Thus it would appear sensible in designing support to place emphasis upon the establishment of effective means for facilitating the assessment of an individual firms potential for growth on a more richly informed basis. In other words, given the failure of quantitative information to provide us with adequate insight to effectively target support, provision should be made for effective qualitatively based assessment.

#### *Owner-Manager and Support Provider Opinions*

Aim 5 of the research was to establish how both owner-managers and support providers felt support could be developed to help young post start-up businesses to grow. This was achieved primarily through direct questioning on the issue during the two rounds of interviews. Findings relating to this aim provide an important indication of the extent to which the requirements outlined are likely to be viewed in terms of their acceptability (from the perspective of both support providers and support users) and their feasibility. Given the rather special characteristics of the 'growth post start-up business' as distinct from the type of growth businesses more frequently examined by researchers, the role of interviews in informing the evolution of support mechanisms is viewed as being of particular importance. Interviews provide additional insights not revealed by other results regarding the



possible requirements and likely limitations associated with the development of support improvements. Responses also featured a number of practical proposals. As such they represent a particularly rich source which can inform the design and development of an alternative approach to support provision.

For owner-managers, views regarding support improvements came from responses to the open-ended Question 23 in the second questionnaire survey and from the first round of in-depth interviews. The latter focused specifically on the views of firms that had experienced some level of employment growth. For support providers, proposals were made during the second round of interviews. The table below compares the main themes developed by the owner-managers and support providers interviewed and reveals areas of differing opinion.

**Table 8.2 Support Improvements for Post Start-Up Firms -  
Owner-Manager and Support Provider Views**

<i>Theme</i>	<i>Owner-Managers</i>	<i>Support Providers</i>
Start-Up Support	<ul style="list-style-type: none"> <li>• General view that support was valuable in teaching 'business basics' and should be maintained</li> <li>• Maintain or even extend start-up grant</li> <li>• On-going element inadequate and needs improving</li> </ul>	<ul style="list-style-type: none"> <li>• Considerable need exists for supportive basic business skills training to be maintained</li> <li>• Disagreement over value of start-up grant</li> <li>• Some criticism of continued emphasis upon AT eligible</li> </ul>
Financial Help	<ul style="list-style-type: none"> <li>• More grants, loans and subsidies demanded for a range of purposes</li> <li>• Tendency among many to see financial solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Limited financial help for specific reasons (eg Second Step)</li> <li>• Tendency to see training/advice solutions</li> </ul>
Individuality	<p>More specific to needs. Demands were for help with both strategic concerns and with more specific, practical issues. Proposals to facilitate individuality include:</p> <ul style="list-style-type: none"> <li>• on-going counselling</li> <li>• masterclasses</li> <li>• access (through database) to network of specialist advisors</li> <li>• on-site visits</li> <li>• sectoral streams at start-up</li> <li>• vocational skill courses</li> <li>• evaluative 'health checks'</li> </ul>	<ul style="list-style-type: none"> <li>• More individual approach needed</li> <li>• Dislike of mechanistic, proceduralised schemes</li> <li>• Ideally, most favoured post start-up mentoring or responsive counselling approaches. A minority tended to stress training based solutions.</li> <li>• Practical difficulties relating to funding and target setting foreseen</li> </ul>
On-going Support	<ul style="list-style-type: none"> <li>• Perception that support ends after start-up and that additional help (financial, advisory and training) is needed</li> <li>• On-going 'Godparent' advisory role identified by some as a means of providing support appropriate to individual needs</li> <li>• Some owner-managers expressed the importance of their own independence and appeared reluctant to accept heavy interventions</li> </ul>	<ul style="list-style-type: none"> <li>• Underlying concern of maintaining client-support provider relationship established at start-up, either through on-going training or advice</li> <li>• Need identified to bridge gap between start-up and Business Link support</li> <li>• Financial and institutional barriers recognised</li> <li>• Some recognition that many firms do not want or need heavy interventions</li> </ul>

<i>Theme</i>	<i>Owner-Managers</i>	<i>Support Providers</i>
Delivery	<ul style="list-style-type: none"> <li>• More on-site visits - saves time and facilitates better understanding of individual needs. Visits should be on demand</li> <li>• Some favour evening classes</li> </ul>	<ul style="list-style-type: none"> <li>• Preference for on-site visits, but finance and time restrictions recognised</li> <li>• Limited capacity or preference for delivering evening classes</li> </ul>
Further Support Awareness	<ul style="list-style-type: none"> <li>• Need better marketing and more pro-active efforts to reach firms</li> <li>• Some identify a lack of further support as primary problem</li> </ul>	<ul style="list-style-type: none"> <li>• Needs improvement through pro-active, face to face efforts</li> <li>• Role for banks in referring clients to providers</li> <li>• Some concern that credibility of existing support is main problem</li> </ul>
Other Sources	<ul style="list-style-type: none"> <li>• On balance, unhappiness and disillusionment with bank services</li> <li>• Benefits and limitations of network support recognised</li> <li>• Government action desired in relation to banks, burdens and regulations</li> </ul>	<ul style="list-style-type: none"> <li>• See benefits from greater cooperation with other organisations working with small firms, including banks.</li> <li>• Better infrastructural development</li> <li>• Cultural change through legislation on training and education</li> </ul>

A comparison of owner-manager and support provider responses demonstrates a reasonably high degree of agreement with regard to the fundamental problems of existing support provision and the generalised requirements for improvement. Specifically, a need for greater individuality and on-going support on an expanded scale is apparent. There is also agreement that delivery mechanisms need re-examining and that support awareness needs to be improved. However, among owner-managers, there was more of a tendency to see a role for financial measures in helping firms to grow. This was also apparent from responses given to Question 23 with such measures being mentioned more than any other. Some support providers meanwhile viewed grants at start-up in particular and the associated requirements for receiving them as having a negative impact upon the development of growth firms. In general, it was those grants or loans which provide a specific incentive for growth (for example Second Step) or which alleviate growth related financial problems that were most favoured. Support providers were also far more

aware of the institutional and practical constraints faced in developing alternative support programmes, often citing funding or manpower restrictions. Their perspective on the problem also encompassed culturally based and infrastructural solutions.

In terms of the specific measures needed to overcome the problem areas identified, a wide range of proposals were offered by respondents. Some were raised by members of both interviewee groups, though in other cases contrasting solutions were proposed. The key difference between Question 23 responses and those made by interviewed owner-managers was that among the former, there was a greater degree of satisfaction with support as it currently exists. This difference most likely reflects the more growth orientated nature of the sub-sample of firms used for in-depth interviews and the higher level of their associated support needs. It also underlines the earlier conclusion that whilst the weakness of objective targeting approaches necessitates the development of a fully inclusive support regime, the need for support of individual firms within such a regime is likely to vary markedly and so this will need to be taken into account in its design.

In considering the interview evidence, the relative lack of growth must be borne in mind. It is apparent that this evidence cannot be used as a basis for developing a support framework where the central focus is on encouraging business growth. However, both survey and interview evidence indicates that to a very large extent, the concept of growth is inappropriate when applied to most post start-up firms. Thus in using survey and interview results, the emphasis must be upon constructing a framework which is facilitative with regard to the needs of all firms whilst at the same time being responsive to the greater support requirements of firms with growth potential.

In the section below, the opinions of support providers and owner-managers are examined in the context of attempting to achieve the requirements spelt out previously from earlier survey and interview evidence. Specific proposals are developed for improving support provision aimed at assisting post start-up businesses. In some instances, interview case material is used.

#### **8.4 Proposals for a New Support Regime**

The main areas for support improvement raised by both owner-managers and support providers correspond closely to some of those inferred from earlier quantitative and qualitative evidence. As such, responses suggest that policy developments with the broad aim of making support more individual and of enhancing on-going support for young post start-up firms would be welcomed by both groups. However, responses also indicate more specific areas where problems of acceptability and feasibility are likely to exist.

##### *Institutional Framework - the Preparation For Business Certificate Model*

In relation to the provision of on-going support, major concerns about feasibility centre around funding and contractual arrangements within the existing institutional support framework. The interviews showed that one way by which support providers were seeking to achieve freedom from these constraints was through gaining access to alternative sources of funding. There was considerable enthusiasm among interviewees about the opportunities provided by further education funding for steering the development of the Preparation for Business Certificate (PFBC) programme outside the influence of TEC control. However, it was recognised that further education funding does bring its own constraints and some problems were envisaged in developing similarly funded programmes for post start-up businesses. It was suggested that the one year training gap between the PFBC start-up scheme

and any future post start-up programme necessitated by funding restrictions would have to be filled by a credible on-going advisory service in order that client-support provider relationships be maintained. Nevertheless, given the positive developments in relation to start-up support, it would appear that the freedom from institutional burdens and funding limitations facilitated by the PFBC model is likely to bring benefits to the provision of training in later periods of a firms development. As such, similar programmes provide perhaps the best prospect for the development of fully funded training to develop the potential of post start-up firms.

*On-going, Individual Support for Post Start-Up Firms - A Network and Qualitative Screening Based Approach*

An on-going, one-to-one relationship with a business advisor was regarded by a number of owner-manager respondents as the best means of delivering support to address the needs of individual firms. However, whilst support providers were sympathetic to this view and saw particular benefits in a mentoring programme, concerns about the cost of such a scheme were raised, especially over the long term as the demand for more mentors or counsellors grows. There was also a concern that quantitative targets would be likely to be set for the number of firms under the care of a particular business advisor, thus undermining the quality of the support he or she might be able to provide.

Among support providers, the most apparent fundamental concern was that the client-support provider relationship be maintained after start-up, not necessarily that all firms should receive on-going counselling. Further, in the case of some of the owner-managers interviewed, it was evident that there was no great demand for particularly heavy interventions by support providers, at least in terms of training and advice. Whilst occasional guidance from a respected advisor was desired by all firms, it was apparent that owner-managers attached great value to their

independence and ability to take their own decisions. This was also recognised by some support providers, leading one in particular to stress the importance of developing support that is above all reactive in nature.

These issues and constraints point towards a support solution where an on-going client-support provider relationship is maintained through one-to-one contact but is not characterised by heavy involvement from a single business advisor in the provision of support to any particular firm. Two concepts arising from Question 23 survey responses and the in-depth interviews, both of which relate to the role of networks in support provision, provide a basis for the possible operation of such a regime. The first is that of the business advisor as a facilitator. Such a role has also been envisaged by other researchers (Gibb,1990), and is to some extent similar to that taken on by Business Link Personal Business Advisors (PBAs). Rather than providing support in the form of training or advice per se, a post start-up business advisor's primary purpose would be to enable firms to access the precise form of support most appropriate to its needs. In the case of post start-up firms, each would be assigned to a Post Start-Up Support Facilitator (PSUSF) who would remain the owner-manager's main access point to support over the long term. Thus by personalising the client-support provider relationship, the benefits of ease of access to support and of maintaining on-going contact are combined. By virtue of their on-going relationship with a firm and their role as a 'gatekeeper' to a network of support opportunities, the existence of PSUSFs would also enable problems relating to post start-up businesses awareness of further support to be reduced.

Nevertheless, even with PSUSFs restricting their role to that of network gatekeepers, interviews with support providers indicate that contact time with owner-managers is likely to be limited, particularly as time goes on and demands on individual PSUSFs grow. As a result, it would not be feasible for a PSUSF to maintain a proactive and substantial contact and evaluative role for all businesses. It

is therefore envisaged that in the first instance, the PSUSF's activities would be restricted to an initial assessment of a firm's business plan (which would include a statement of growth objectives) followed by occasional progress enquiries. Beyond this, the facilitative service provided by a PSUSF would be responsive in nature.

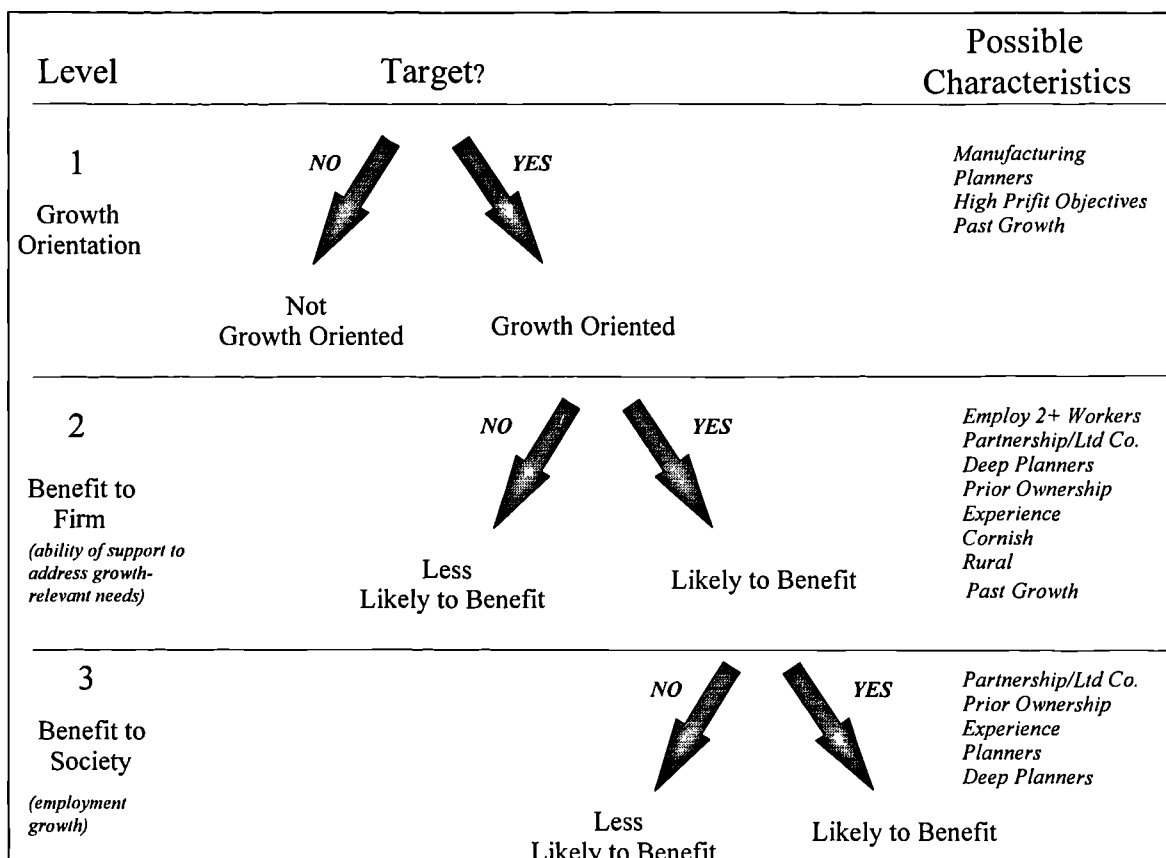
As a result, if the on-going relationship between client and support provider is to be maintained, there exists a need to strengthen and extend the contact and evaluation function to a wider network of organisations with whom post start-up businesses are likely to interact regularly. Such organisations might then be able to fill the more pro-active role necessary for the identification of growth potential firms. Survey evidence showing that for the majority of firms, their main sources of advice after start-up are their bank managers and accountants suggests that the role envisaged for these individuals by some support providers as central players within an on-going programme of support would be a valuable one. An evaluative role for banks and accountants is therefore proposed whereby owner-managers are recommended to seek an appointment with their PSUSF either if growth targets set in their initial business plan are not achieved or if opportunities for growth are identified. Subsequent to this, it would be the role of the PSUSF to evaluate whether or not the factors perceived by owner-managers to be influencing their firm's performance could be addressed through available support. Thus through a contact and evaluation network, firms would be screened on a qualitative basis through an assessment of their growth potential and the likely ability of support to address their perceived growth needs.

Those owner-managers who receive support could also subsequently have a role within the evaluative network, albeit on a far more informal level than that envisaged for banks and accountants. Through their informal or formal business contacts, they would be in a position to recommend the services provided within the proposed framework to other young micro businesses with growth potential.



Given the failure of quantitative targeting techniques to correctly classify firms that either have growth potential or that are likely to gain most benefit from support, the screening process is by necessity qualitative in nature. However, those within the evaluative network might draw some benefit from the quantitative results of this research as they represent one source which might usefully inform their assessment. Figure 8.2 presents a three leveled targeting approach to assist in this process summarising the characteristics identified by cluster analysis and chi-squared test as being associated with potential target groups.

**Figure 8.2 - A Three Leveled Targeting Approach**



It should be noted that in presenting the proposal outlined for the screening of post start-up firms through an evaluative network, the purpose is not to exclude firms judged not to have growth potential from the support framework entirely. Rather, it is to provide access to an appropriate level of support given a particular firms growth prospects and intentions and the likelihood of it obtaining a positive support

outcome in terms of having the factors perceived to affect its growth performance addressed.

As such, it is the scope of support options available that will vary between firms with differing growth prospects. It will be the purpose of the PSUSF to ensure that the range of options offered to any given firm is appropriate to its needs. In the meantime, through the pro-active efforts of banks, accountants and past recipients of support, the aim is to identify firms that might benefit from growth-relevant support and offer it to them. Thus the proposed framework is simultaneously both responsive and pro-active in nature. However, given the nature of the evaluative mechanism proposed, it should be noted that the success of the approach is highly dependent upon the willingness of banks and accountants to become active members of the evaluative network.

Also central to the success of the system envisaged is the establishment of a localised, cooperative support provision network. Elements of support demanded by the small firms interviewed and surveyed encompass training, information, financial assistance and advice. In terms of advisory aspects of support, one clear demand amongst businesses is for both practical and strategic advice from individuals with a special understanding of the needs of firms within their particular area of business. In this way the individuality of support which is lacking at start-up might be attained. This is one area in which the proposed support mechanism is different from that developing under Business Link. In Business Links, the emphasis is upon the PBA as a generalist. However, this research demonstrates a clear demand for advice from individuals who have a specific understanding of the needs of certain types of firm. It is frequently argued that demands for a more individual or specialist approach are based on perceptions rather than real needs and therefore that the real problem is that owner-managers are unable to apply general concepts and solutions to their own firm. Thus specialist advice is not required. However, it is these

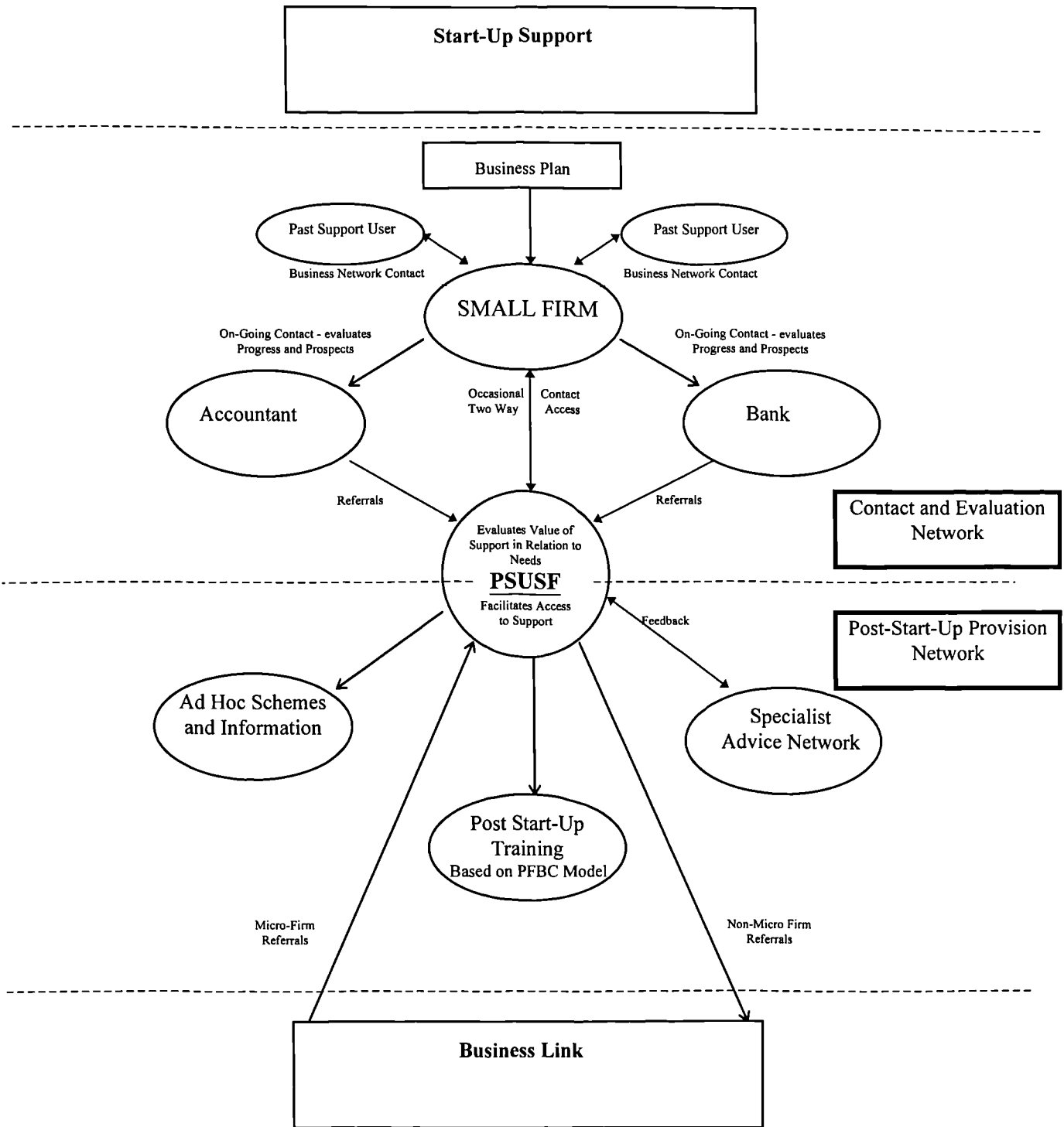
specialists, with their understanding of a particular sector or operational approach, who are best placed to help an owner-manager to apply general concepts and solutions within the context of their own firm. More importantly, Davidsson's model proposes that perceptions do have a key role in business growth. Given that the perceived need is for individual, specialist advice, it is therefore important that such perceptions be addressed.

Thus whilst the PSUSF is likely to be a generalist, his or her role is limited to that of evaluator and facilitator. In those cases where growth potential exists alongside a perceived need for specialist advice, the PSUSF will refer firms to relevant specialists. Given inevitable time constraints, this more limited role for the PSUSF is also more in fitting with a non-exclusive framework where demands, in terms of the quantity of enquiries, are likely to be heavy.

If access to specialist advisors is to be made possible, a considerable degree of cooperation would be required between existing support organisations to facilitate the establishment of a network of such individuals operating at a local level. Information on these specialists along with other sources of advice and training would be kept on a central database so that PSUSFs can facilitate access to help for firms regarded by themselves and other members of the evaluative network to have growth potential. This information would also be required to enable the PSUSF to identify those support opportunities likely to be of greatest benefit to them.

The figure below provides a representation of the post start-up support model proposed.

**Figure 8.3 - Post Start-Up Support Framework Model**



The model demonstrates how the contact and evaluation network and support provision network are linked by the PSUSF in his role as evaluator of the value of support in relation to a firm's growth needs and as facilitator. It also shows how the mechanism acts as a bridge between start-up support and Business Link provision. Indeed, at an operational level, continuity and connectivity between different support agencies are essential elements. It is envisaged that the start-up providers will play the main coordinating role in terms of appointing and organising the activities of PSUSFs. This will act to reinforce continuity in client-support provider relationships. Such a role for start-up providers will also be beneficial given the importance of the business plan developed at start-up in helping to inform the evaluation of company needs and prospects.

Connectivity with Business Links is also an important aspect of the model, particularly in relation to mutual referrals. In practice, links between start-up providers and Business Link are already established in Devon and Cornwall. To take the example of the city of Plymouth, the local start-up provider (Enterprise Plymouth Ltd) is represented on the Business Link Advisory Board. At an operational level, some Enterprise Plymouth staff are located in the Business Link office. Similar arrangements exist in both Bideford (North Devon) and Cambourne (West Cornwall). Banks, Chambers of Commerce and local businesses are also active partners in Business Link. Thus to a large extent, the networks required for the proposed framework to operate are already in place.

#### *Delivery and Content of Support Provision*

Just as quantitative and qualitative findings indicate a need for the content of support to be based upon individual needs, interview and open-ended questionnaire responses showed considerable diversity amongst firms with regard to their preferred mode of support delivery. Thus above all else, flexibility and variety must

be key features of the proposed support provision network. Nevertheless, some broad generalisations can be made. For instance, where the advisory services of the proposed network of specialists are needed, this research suggests that the demand is for on-site visits. Whilst this is clearly the more expensive option in terms of time and money, owner-managers and support providers both identified the benefits of such visits. Thus unless it is felt that the particular needs of a potential growth firm do not necessitate an on-site visit, it is proposed that they should occur as a matter of course. In the context of the proposed framework, fully funded specialist assistance is only likely to be available to those firms for whom it is envisaged that such support will have a positive impact upon growth. As a result, it is quite likely that the costs entailed would remain relatively low.

As shown in Figure 8.3, one of the roles of the specialist advisors is to provide a firm's PSUSF with feedback which, as well as providing the PSUSF with a better understanding of the firm, and so being of benefit to his on-going relationship with it, might lead to a further recommendation to embark upon a particular scheme of training or to make use of a particular form of financial assistance. Survey and interview evidence points to a number of recommendations about the form that training and other support should take. In terms of the content of the proposed post start-up training programme based upon the PFBC model, the negative support gaps identified in relation to start-up support indicate what topics should be covered. These are human resource management, financial management, strategic product-market development, developing technological and non-tangible resources, developing market knowledge, physical expansion and owner-manager personal development. A further consideration is that there is some limited evidence to suggest that levels of satisfaction among service sector firms with current further support provision are more variable than is the case for manufacturing firms. Given the predominance of service sector firms in the south west economy, this should be kept in mind when developing course materials. Indeed, evidence suggests that

market segmentation might be beneficial at this stage of development if the number of participants makes this feasible.

The fact that a negative support gap also exists in relation to sector specific problems demonstrates the need for a programme to facilitate access to specialist advisors which runs parallel to the proposed training programme. However, the fact that some common areas of concern are shown to exist by the gap analysis and other data supports the argument that a range of ad hoc initiatives, specifically designed to address some of these common support needs, should be provided. Quantitative and qualitative research evidence suggests that initiatives designed to help firms facing premises constraints or wanting to change location would be of particular benefit. Some schemes already exist in this area, so changes in provision would not need to be great, other than to incorporate the schemes more clearly into the proposed support framework for young post start-up firms. Another area where demand exists for continued specific support measures is in the taking on of new staff. Qualitative evidence demonstrates that there is particular disquiet amongst both owner-managers and support providers about the ending of DCTEC's Second Step initiative. Whilst research might be required to establish the cost-effectiveness of such a scheme, there is some evidence from this research to suggest that a similar programme would play a significant role in addressing what is an important perceived barrier to growth amongst firms with growth potential. However, since survey results show that for the population of small firms as a whole, staffing issues are of limited importance, it would again be necessary to ensure that this scheme is only available to those firms that the PSUSF feels would be most likely to benefit from it.

Other initiatives proposed by owner-managers and support providers during interviews which might help to address issues of individuality and practicality include evaluative health checks, masterclasses and vocational skills courses. In the

case of the latter proposal, an information service on industry sponsored or other vocational skills courses could be developed, perhaps combined with a grant fund to cover any course fees where this is deemed appropriate.

Other information services would be accessed by firms through their PSUSF. To avoid any overlap in provision, existing Business Link systems could be used.

### *What Role for Start-Up?*

Survey and interview evidence has demonstrated that start-up support (as it existed prior to the time of the survey) is inadequate in terms of addressing the factors influencing the growth performance of post start-up businesses in the period 12 to 36 months after start-up. However, because of the individuality required in the provision of support to address these needs and the perceived requirement amongst businesses and support providers for on-going support, it is evident that any support designed to address growth needs is best provided during the post start-up period itself. Added to this is the fact that because not all firms are likely to benefit from support in terms of employment growth and having their perceived needs addressed, it would not be sensible to provide the same level of support for all businesses. Research findings suggest that at start-up, such discrimination would be inappropriate and difficult to implement. Although other results do suggest that very broad market segmentation on the basis of employment growth ambitions and employment levels at start-up may be of some benefit in terms of addressing issues of heterogeneity, the relatively low number of firms currently taking part in start-up programmes in Devon and Cornwall suggests that segmentation would not be very practical at the current time.

Despite these findings, small business owner-managers and support providers interviewed were largely of the opinion that start-up has an important role to play,



both in its own right and in the context of an on-going support process. It acts as an initial filter to force people to assess their own suitability to being self-employed, it teaches basic business skills which can later be built upon and provides individual feedback on initial business plans. For the unemployed, the scaled down AT based scheme provides the possibility of long term work and so is valued by support providers, particularly in more deprived areas, as a limited but nevertheless useful tool for encouraging economic rejuvenation. Meanwhile, qualitative evidence suggests that the PFBC programme might be capable of producing good quality, well motivated owner-managers amongst those participants who choose to set up in business. As such, some of the criticisms of the AT based programme are being addressed. Survey evidence meanwhile suggests that a positive experience of start-up support, particularly with regard to developing motivation, improves awareness of further support. However, in relation to this, the main priority remains to improve the quality and scale of further support. Otherwise, there is a strong chance that expectations regarding on-going support will not be matched by reality.

Finally, in the context of the role envisaged for the evaluative network within the proposed post start-up support framework, the initial business plans developed at start-up would be an important means by which bank managers, accountants and PSUSFs can assess a firm's progress. Thus in this respect, minor changes to the way that business plans are developed at start-up to make more explicit any long term growth objectives would be beneficial. However, the major changes envisaged for start-up are not in its form or the way that it operates. Both the AT and PFBC schemes fill valid and important roles. Rather, they relate to the way in which start-up support is viewed, not purely as a one-off intervention but as the beginning of an on-going support process in which, through the evaluation and provision mechanisms proposed, the initial objective of ensuring survival evolves towards an aim of facilitating growth.

## *Business Link*

The primary purpose of the proposed model is to fill an identified gap in relation to the provision of assistance to young post start-up firms (which are primarily micro firms) in the period 12 to 36 months after start-up. Early evidence from this study suggests that Business Link is not filling this gap. Therefore, in effect the model represents a bridge between start-up support and, for those firms that grow, Business Link. In the interests of continuing established relationships, it is envisaged that the provision of post start-up assistance be closely aligned to organisations currently providing start-up support. However, Business Links are likely to be closely associated with any post start-up framework in terms of mutual referrals and as such, will in effect represent an element of the contact and evaluation network (see Figure 8.3). Furthermore, to avoid resource wasteful overlap in provision, some aspects of support (e.g. information, certain ad hoc schemes) are likely to be shared. In relation to these, it is primarily the means of contact, evaluation and facilitation that will differ for young post start-up firms.

Over time there is, of course, the chance that Business Link will broaden its focus and pay greater attention to the needs of small and young post start-up firms. If this were to become the case, the need for a separate framework may diminish. However even then, this research suggests that for the particular group of firms studied, the need for a strong evaluative screening process and on-going contact after start-up would remain. These are not well provided for by what is essentially a one-stop-shop approach. In the meantime, the absence of any substantial support for post start-up firms necessitates the development of alternative structures, such as the one proposed.

### *Proposal Limitations and Obstacles*

Four major limitations can be identified in relation to the proposed support framework. The first is that its success is highly dependent upon whether or not it is possible to initiate the evaluation and provision networks. Existing and developing cooperation between support providers and other organisations such as Chambers of Commerce, in part brought about through the formation of Business Link, would tend to indicate that an effective provision network could be created. The more serious obstacle is that of incorporating banks and accountants into the framework. Although banks are already represented on Business Link boards, success here is likely to depend upon the ability of other members of the business and business support community to persuade such organisations that benefits exist to them, in terms of improved business performance and greater demand for financial services, in taking a more proactive role. In the first instance, the achievement of this might entail a series of pilot schemes. However, in the context of recent restructuring and down-sizing within the industry, the reluctance of banks to become involved is likely to remain a serious obstacle to effective cooperation.

A second limitation relates to the suggestion that qualitatively based evaluation is likely to be more effective than quantitatively based targeting. Further research is clearly required to test this argument. However, it is certainly *not* true to say that because targeting cannot be achieved on the basis of quantitative data, it cannot be achieved at all. The proposed evaluative network, drawing as it does on the views and experience of a number of individuals, provides a potentially strong tool for assessing the potential of firms.

The third limitation of the proposal, and one which lies outside the parameters of this study, is that of cost. This research does provide strong evidence to suggest that the proposals made would be effective in helping small businesses to grow. Further,

the effective operation of the evaluation network would result in provision costs being kept under control. Suggestions have also been made in relation to alternative funding sources. However, issues of cost-effectiveness would need to be addressed elsewhere.

The fourth and most critical concern relates to the purpose to which the framework might be applied. Neither the survey nor interview evidence emerging from the research process has identified significant numbers of growth post start-up firms. Whilst the survey results do provide some insight into the factors affecting growth, the ability of existing support to address these factors and potential approaches to targeting, other results, particularly from the interviews with owner-managers, tell us relatively little about issues of growth as most of the firms involved had only experienced very limited employment expansion. Therefore, it would be inappropriate to regard the proposed framework as a panacea for fostering the development of growth oriented businesses. A key message emerging from both the survey results and subsequent interviews is that needs and intentions amongst post start-up firms vary considerably. It is in helping to identify, evaluate and address these needs that the framework is likely to be most useful. It does not seek to be prescriptive or to force businesses to grow. To do so would be to go against the grain of the evidence and, more importantly, the instincts of the owner-managers of most young post start-up businesses.

Despite its limitations, the support model developed represents a possible foundation upon which future programmes for young post start-up firms might be built. It enables an on-going relationship with all post start-up firms to be maintained and so provides coverage of firms which Business Link are not reaching. In establishing such a relationship, it also reduces problems of awareness and allows for the provision of both reactive and proactive support. Through the mechanism of an evaluative network, the model facilitates the assessment of growth prospects.

This process is further aided by the suggested three leveled approach to evaluation outlined in Figure 8.2. Finally, it facilitates appropriate access to a flexible and varied range of support instruments.

The provision network enables the objectives of practicality and individuality to be attained whilst also making provision for structured training in growth-relevant skills where this is appropriate. Overall, the framework goes some way towards overcoming one of the main dilemmas faced in relation to support provision in the immediate post start-up period by being broadly inclusive in nature whilst also being facilitative with regard to growth.

**CHAPTER 9**  
**CONCLUSIONS AND RECOMMENDATIONS**

## 9.1 Conclusions

The literature review suggests that even after extensive examination of the issues, few researchers have been able to develop a satisfactory and all encompassing framework for explaining small business growth. Since the heterogeneity of the small business sector is likely to preclude the possibility of a single explanatory framework, a focus upon particular categories of businesses or on variations between types of firm is justified. The literature review also validates the initial contention of this research that there is only a limited body of knowledge concerning the nature of growth, or the factors that influence it, among young post start-up firms in Devon and Cornwall. Even less is known about the extent to which existing support satisfactorily addresses these factors. As a result of these apparent gaps in the literature, the review provided a less than ideal base for grounding the phenomenon under examination. The aims and subsequent hypotheses therefore arose to some extent from the need to fill the observed gaps in existing knowledge, with the result that many were rather pragmatic in nature.

The literature also raised the possibility that recent changes in emphasis within the small business support framework could pose a threat to the development of very small new businesses. Thus, driven by limitations in existing theory and by developing policy concerns, this research set out to establish whether and how existing assistance could be developed to more effectively address the growth-relevant needs of post start-up businesses.

The first research aim was to gain an understanding of the extent and nature of employment growth among post start-up firms and the attitudes of owner-managers towards it. Empirical results from the first survey of 587 businesses aged 12 to 36 months showed that a relatively small proportion of firms had achieved employment growth since being established. Growth was more prevalent amongst planning firms

and firms owned by people with past ownership experience and/or greater ambitions to grow. For the sample as a whole, whilst most firms did have some modest ambitions, only a small number were seeking rapid growth. Further, variations between the two questionnaire surveys show that the proportion of firms wanting no growth increased markedly over time. Thus the sample can be characterised as one that contains few firms that have experienced employment growth or that have any substantial ambitions for further growth. These findings to some degree bring into question the applicability of the chosen sample frame for addressing the subsequent aims of the research. However, the limited growth observed was not unexpected. Indeed the aim of measuring the extent of employment growth amongst the sample effectively precluded any survey targeted solely at 'growth firms'. Thus the survey was designed to allow all owner-managers to comment on the importance of various factors, whether they contributed to growth or, alternatively, were important to a firm's *lack* of growth. Further, it was envisaged that through subsequent in-depth interviews with firms from the survey sample that had experienced employment growth, a more richly informed view of the issues affecting growth post start-up firms could be developed.

Despite the limited growth ambitions of firms in the sample, some significant variations in ambitions were observed between types of firm. These, along with variations in actual growth, raise the possibility that growth-relevant support could be targeted. However, the predictive capability of discriminant functions proved to be modest, particularly in relation to actual employment growth, suggesting that targeting on the basis of easily measured variables is likely to be of limited effectiveness.

Subsequent in-depth interviews with owner-managers provided more insights into the nature of employment growth amongst the best performing post start-up firms (in terms of increased employment since start-up) in the sample. They revealed that



by and large, employment growth was very limited. A small number had experienced considerable growth and had plans to grow further. However, for most, the limited employment growth observed typically consisted of the creation of part-time or seasonal jobs. For certain firms, levels of employment were highly variable over a relatively short time period. Thus whilst these firms are distinguishable from the other firms in the sample in as much as they have created jobs for people other than their owners and they have generally greater growth ambitions, many cannot truly be characterised as 'growth firms'. Rather, they might more accurately be described as surviving firms, albeit ones that in many cases show signs of wanting to achieve more substantial growth in the future.

The failure of this phase of the research to identify a significant number of 'growth firms' has two key implications. First, it demonstrates yet more clearly that genuine growth amongst the type of firms being examined is a rarity, at least during the first three years of their existence. More importantly in terms of the recommendations of this research, it is clear that few concrete conclusions about growth can be derived from the owner-manager interviews carried out. Nevertheless, they do help to inform the development of a more general framework for post start-up business support, the emphasis of which is not purely upon the development of growth businesses.

A second aim of the study was to examine the importance of the factors highlighted in the literature as influences on business growth. A perceptions-based approach was utilised because of the need identified in the literature for support to be client led and because of the role played by owner-manager perceptions in influencing growth motivation and actual growth (Davidsson, 1991). Empirical results from Mail Survey 1 highlighted the perceived relative importance of a range of factors and in particular underlined the critical influence of many owner-manager related issues and certain external factors. Recognising the difficulties involved in

addressing such factors within a resource constrained support system, an attempt was made using cluster analysis to develop a model to target those firms most likely to have their growth-relevant needs addressed by competency centred support. Whilst significant variations between businesses were observed, discriminant analysis was only moderately successful in identifying such firms.

Results from the first survey also showed that considerable variation exists between firms in relation to the importance which their owner-managers attach to growth factors. This indicates that even within the strictly defined sample of businesses examined, heterogeneity precludes generalisations. Further, interview evidence revealed that there is a strong perception amongst small firm owner-managers that the factors of importance are unique to individual firms. Thus a demand exists for advisory bodies to recognise the individual nature of different young post start-up firm's support needs.

Research Aim 3 was to assess the extent to which owner-managers perceive existing start-up support satisfactorily addresses the factors influencing their business growth and to understand the reasons for these perceptions. Survey 2 results show that whilst start-up support is adequate in addressing some basic business function issues (e.g. bookkeeping; market research), in many areas a clear 'negative support gap' is apparent. There was also shown to be relatively little variation in responses relating to the adequacy of support, with prior business ownership, urban/rural location and owner-manager educational attainment being the only variables showing any significant effect. This suggests that there exists a consensus of opinion that start-up support is not adequately addressing those factors that are important in influencing a firm's growth performance. This conclusion was mirrored by qualitative findings in the one-to-one interview research, which also shed some light on the reasons for support inadequacies. Whilst owner-managers and support providers identified a wide range of reasons, the failure of start-up to address individual concerns and the

lack of any substantive on-going element were recurring issues raised by both sets of interviewees. Support providers also noted the impact of institutional factors (e.g. contractual and funding arrangements and target setting) on the ability of start-up support to address growth related issues.

The fourth aim of the study was to assess the likely contribution to addressing issues of business growth of other TEC and non-TEC initiatives and sources of advice. This was achieved through an examination of owner-managers awareness, use and perceptions of these sources. In relation to TEC coordinated support, awareness of broad 'gateway' schemes (for example BAS) was shown to be greatest, though even here, a substantial proportion of firms remained unaware of the support available. Variations in awareness were shown to exist between firms with different company and owner-manager characteristics. These highlight areas where marketing efforts to improve awareness of single-stop access points might most effectively be pursued. However, the fact that a significant proportion of firms remain unaware of any support leads to the conclusion that more proactive attempts to reach firms might be required along side one-stop-shops.

Variations in awareness were also shown to exist between owner-managers with different perceptions of the adequacy of start-up support. A positive perception of start-up support gave rise to greater awareness of further support. However, other tentative findings indicate that negative perceptions of start-up lead to greater use of further support. This suggests that owner-managers react to negative perceptions by either 'blinking out' awareness of additional support opportunities or by more actively seeking out further support in order to remedy earlier deficiencies. However, qualitative results suggest that for those owner-managers whose awareness of support is great, there exists a considerable expectations gap in terms of the support available to them. This in turn leads to the non-use of support,

helping to explain the fact that just 9.8% of responding firms had used any further support.

Thus while 75% of firms using additional support sought assistance in order to help them to grow and most found it to be either 'useful' or 'very useful', for a number of other firms, existing on-going support is not adequate to meet their needs. Qualitative findings suggest this is a particular problem for micro firms that have experienced (or wish to experience) some degree of employment growth, with both owner-managers and support providers perceiving the scale of support available to young and small post start-up firms to be inadequate. Overall however, the most important reasons given for not using further TEC support were a lack of problems and/or need for support indicating that a large proportion of businesses would be unlikely to seek or require much assistance. This is again a reflection of the limited employment growth experienced or desired by the great majority of firms.

Mail Survey 2 results showed that a considerable proportion of firms sought advice from non-TEC sources and in particular from friends and networks, banks and accountants. Patterns of use of these sources varied between firms with different characteristics and with different perceptions of the adequacy of start-up support. The fact that, unlike TEC support, positive perceptions of start-up appear to be linked to the greater use of non-TEC sources leads to the possible conclusion that those firms with more limited support needs, perhaps of the kind that can be more easily addressed at start-up, rely more heavily upon less formal sources of on-going assistance.

Research Aim 5 was to assess how both owner-managers and support providers feel that assistance to post start-up businesses might best be improved to help them grow. This was achieved through the use of in-depth interviews and an open-ended question in Mail Survey 2. Both again highlighted a desire for support to be more

individual and to be on-going with contact being maintained between client and support provider. There was general agreement that growth issues are best addressed after start-up, but the role of start-up support was strongly defended as an important element of the support process. The establishment of the PFBC scheme was seen as a promising development from the perspective of creating more growth oriented firms.

Owner-managers tended also to highlight financial solutions such as grants and subsidies. This contrasted with the support providers who tended to see training and advice based solutions. They were also more aware of the institutional constraints likely to be faced in developing alternative forms of support. Furthermore, it was recognised by many support providers that growth was not an important issue for many firms and that this should be reflected in any new support framework. These comments are supported by survey results showing the relatively limited growth ambitions of most firms in the sample.

The two groups of interviewees also recognised an important role for networks, both amongst small firms themselves and the providers of training and support. Whilst some interviewees saw support awareness to be an important issue, others felt that the general lack of any form of support for young micro firms needed to be addressed first, otherwise a credibility gap would develop.

The final aim of the research was to propose improvements to existing support on the basis of the findings of the study. A model is proposed which combines a contact and evaluation network with a support provision network. This aims to bridge the gap shown to exist by the study between start-up support and the assistance available through Business Link. Given the inability of quantitative approaches to effectively target growth potential firms, an essentially qualitative evaluation process is proposed which includes a role for banks, accountants and

small firm networks. Through this process, firms felt likely to benefit from support are directed towards a Post Start-Up Support Facilitator (PSUSF) whose role it is to evaluate their needs and to facilitate the provision of appropriate support. This might involve enrolment on a post start-up training course specifically designed to address growth-relevant needs, access to a network of specialist advisors, the provision of information, access to a small number of ad hoc schemes or a referral to Business Link. It is envisaged that the framework be coordinated by start-up support providers and that PSUSFs be assigned to all firms completing a start-up course. In this way, existing relationships can be maintained.

Although the purpose of the contact and evaluation network is in part to identify that small number of firms with growth potential, the aim of the proposed model as a whole is not to exclude non-growth firms. The nature of the sample of firms examined (particularly in terms of their employment growth and growth intentions) suggests that this would be inappropriate. Rather, it is to facilitate access to an appropriate level of support given a firms needs and potential future growth prospects.

Overall, the research has demonstrated that a support gap does exist in relation to the ability of existing schemes and initiatives to address the factors influencing the growth of young post start-up businesses. Start-up support is not broad enough in scope to address these factors and on-going support is failing to compensate for this. Given that there would be a risk of undermining the current role of start-up support if too great an emphasis were placed upon growth, changes must be focused upon support for firms in the period after their start-up support ends. Only by doing this can continuity and contact be maintained for all post start-up firms and an effective process of support be established. Furthermore, it is important to recognise that evidence from this and other research shows that only a small proportion of firms are likely to experience rapid growth. Results from this study suggest that attempts

at targeting on the basis of quantitative data are unlikely to be wholly successful. Further, at a national and international level, the role of micro firms in employment generation and retention has been shown to be an important one. In areas dominated by very small firms, as both Devon and Cornwall are, this is likely to be particularly so. Thus the challenge to policy makers is to develop frameworks which are sensitive to the individual needs of *all* firms but which are also able to identify those firms that have the greatest potential and subsequently to facilitate access for them to appropriate support measures. The model proposed provides a possible means by which this might be achieved.

## **9.2 Recommendations and Further Research**

Through addressing the six research aims, a number of issues have been highlighted which this study has not been able to fully explore. Some of these relate to the limitations of the proposed support framework outlined in Chapter 8. Concerns about (a) the feasibility of the necessary participation of banks and accountants in the evaluation network, (b) the effectiveness of the qualitative assessments of growth potential and (c) cost, all point to areas where further research is required. This would ideally take the form of a longitudinal evaluation based upon a pilot scheme. An alternative approach might be to identify and assess any existing initiatives where banks and accountants play a more active role in the support evaluation and provision process, the aim being to identify examples of best practice.

Other broader issues of concern have not been fully addressed by this study. The use of Devon and Cornwall as a study area raises questions relating to the applicability of conclusions in other parts of the country, particularly urban areas. However, previous research identifying urban-rural differences in the small firm population (Keeble et al, 1992; Townroe and Mallilieu, 1993) and differences between

localities (Chell, 1988) in part justify a focus upon firms in specific areas or regions. Some findings from the study appear to validate this focus, pointing as they do to the influence of lifestyle factors upon small firm growth. Nevertheless, further research would be beneficial to establish the extent to which such factors are regionally specific or, alternatively, are common across the small firm population as a whole.

Due to the time constraints of the study, there was limited scope for longitudinal research. As a result, it was not possible to examine how perceptions relating to the factors influencing growth, or indeed the ability of support to address these factors, change over time for the group of firms surveyed. The former has been addressed to some extent by previous studies. However, the stage models of growth tend to place most emphasis upon organisational concerns and many ignore the very early development of firms. Meanwhile the work of Gill (1985 and 1986) focuses upon new firms located primarily in an urban area experiencing high levels of unemployment. In relation to perceptions of support adequacy, there appears to be a very limited understanding of how and why these change over time. Although this and other studies have identified a need for client-provider relationships to be ongoing in nature, little research has examined how effective relationships might be maintained over the long term. Given the role envisaged for PBAs within Business Link and also the nature of the contact and evaluation network proposed in this study, a need for evaluative longitudinal research in this area is clear.

One variable which was examined in both the first and second questionnaire was owner-manager growth ambitions. These were shown to diminish markedly over a period of five to six months. Additional research might usefully examine trends over a longer period and attempt to assess whether changed intentions are associated with economic conditions or with other factors. Certainly in the context of Davidsson's (1991) analysis, it seems likely that such changes are the result of changing



perceptions of the importance of a range of factors. However, the author does not examine the effect of perceptions on growth motivation over time. Whatever the cause of the changes in growth ambitions observed in this study, it is important that these continue to be taken into account when considering issues of support design.

A further issue left unresolved by this research is whether or not the measures proposed for assisting small firms will in fact lead to higher levels of growth (or, indeed, improvements in any performance measure) amongst post start-up businesses. As Storey (1994) points out, little solid evidence exists to prove a link between the provision of small business support and growth. Problems persist in measuring the additional impact of assistance in relation to the level of growth that might have been achieved by a firm without help. However, the fact that the precise impact of support is difficult to assess in quantitative terms should not detract researchers from the task of seeking to make support more relevant to the needs of small firms. This is borne out by the fact that business failure rates have been seen to fall following the introduction of start-up and other support programmes. In as much as business failure can be viewed as the 'flip-side' of business growth, arguments in favour of the retention and improvement of small business support remain strong. Of rather greater importance, particularly given the very limited orientation towards growth of the firms examined in this study, is the debate about how limited resources might be best spent in order to maximise the benefits of support. This research has argued that given the limited predictive power of quantitative measures and also the impact of micro-businesses on the local economy, efforts to target support must not lead to the exclusion of large sections of the business community. The importance of post start-up micro firms to Devon and Cornwall means that their support needs cannot be ignored. The gaps identified by this study in the current provision of assistance for many businesses in this group therefore need to be addressed. Nevertheless, whilst adhering to this principle, efforts should be made to ensure that the level of assistance made available to firms

corresponds with their growth potential and needs. Whilst this research indicates that instances of firms with employment growth potential are likely to be few during the early post start-up period, the proposed framework for evaluating firms and facilitating support provides a means by which these efforts might be more effectively coordinated.

An important methodological concern is as follows. Given the relative lack of research on post start-up growth businesses, it is possible that past studies examining the factors influencing small business growth do not sufficiently reflect those influences of most importance to this particular group of businesses. As previously explained, the literature examined did not therefore form a particularly solid base for grounding the phenomenon being studied. The generality of the literature review therefore meant that the resulting hypotheses were, to some extent, rather pragmatic in nature. This issue could have been resolved by adopting a more empirico/deductive approach. In addition to this, a grounded theory approach, based around case firms, might have been of use during the early stages of this research project. Earlier interviews with business owners might have highlighted instances where factors cited in the business growth literature as being important to growth were in fact rather less critical to the group of firms under consideration and vice versa. Although such an approach brings with it the risk of excluding factors which might in fact be important influences, it can also help to focus research and clarify the precise nature of the phenomenon under examination. If interviews with owner-managers at an earlier stage in the research process were to occur, and if the purpose of these was to help identify likely growth factors, there would of course be an even greater need to ensure that the sampling method employed was appropriate to the aim of identifying genuinely growth-oriented post start-up businesses.

A number of other methodological issues warrant consideration in reviewing the limitations of this study. The first relates to the measure of growth used. Whilst

employment growth is undoubtedly of greatest concern to policy makers, financial measures are also critical measures of a firm's performance both over the short and the long term. Further, little reference has been made to the quality of the jobs provided by the firms in the study. Future research would benefit from taking these issues in to account. Secondly, the limited size of the survey sample meant that some results, whilst suggesting that associations might exist, were not statistically significant. This was particularly the case for results relating to the use of further support as only 18 firms in total had used any such form of assistance. Thus, for instance, only tentative conclusions could be drawn in relation to the associations observed between perceptions of start-up support, further support awareness and further support use. A much larger scale survey would be required to confirm the validity of these observations.

Additional methodological concerns relate to the nature of the sample used for the survey research. Given that the firms surveyed had all taken part in a business start-up programme, it might be that results are most applicable to this particular group of post start-up businesses. However, if one assumes that an owner-managers who have received start-up support are better prepared and trained than owner-managers of firms of a similar stage of development who have not received support, then it might be hypothesised that conclusions regarding support for the sample of firms examined provide a useful yardstick against which the likely generalised needs of all young post start-ups might be judged. In other words, those firms that have not received previous support are likely to require at least as much support as those who have, notwithstanding individual circumstances (for example, previous ownership experience). A further concern relating to the sample of firms used for the questionnaire surveys is that it contained relatively few firms that had experienced any significant employment growth meaning that the potential for comparisons between growth and non-growth firms was limited. This was a result of the need for a random sample in order to achieve the first aim of the research project (i.e. to gain

an understanding of the *extent* of employment growth among the sample of firms). However, although not all firms in the sample had grown, it was concluded that the views of their owner-managers in relation to growth issues were still valid (for instance, an owner-manager could still comment on which factors were important to the non-growth of his or her business). It was also initially intended that the use of in-depth interviews with owner-managers of growth businesses in the third phase of the study would help to redress this possible imbalance. However, the nature of the firms ultimately selected for interview severely limited the potential for this to occur. Thus if further large scale survey research were to occur, it might usefully draw upon a sample frame constructed to include a larger proportion of growth post start-up firms.

A further methodological issue relates to the use of two questionnaire surveys. Although the approach used ensured that responses from owner-managers were not biased and helped to achieve a good response rate (a single, longer questionnaire may well have reduced the quantity returned), it also meant that the validity of inter-survey comparisons might be affected. Whilst the use of the same sample for both surveys ensured that there were only small variations between the two sets of respondents, this represents a possible minor weakness with regard to some of the results.

Perhaps the most significant findings emerging from the study in terms of their implications for further research are those concerning the characteristics of early post start-up businesses. Findings relating to the extent and nature of employment growth among the sample of case firms examined in-depth suggest that this group of businesses is different in many respects to those firms usually described in the small firm literature as 'growth businesses'. Indeed, it is clear that many might be more appropriately labelled 'survivors'. The main implication of this is that the ability of this study to explore in any depth the issues affecting growth post start-up

businesses has been limited considerably by the nature of the chosen sample frame, and in particular by the limited employment growth observed amongst most of the firms selected for interview. If a greater depth of knowledge concerning genuinely growth-oriented post start-up firms is to be attained, a need also exists for methodological improvements to occur in order that such businesses can be more successfully identified. Given that this study highlights a relative absence of firms experiencing significant employment growth in Devon and Cornwall, one possible solution might be for future research to adopt a broader approach. This might entail widening the scope of the study to include other regions or encompassing those firms that have not been established through a business start-up programme in order to capture a larger number of firms experiencing employment growth. However, evidence from this study tends to suggest that such a methodological approach may not be the most appropriate way ahead. If the results of this research are representative of all post start-up firms, then they suggest that employment growth is a far from common phenomenon amongst post start-up businesses. This supports the view that contributions to employment are a more common feature amongst firms in later developmental stages. Although developmental stage is not necessarily linked to company age, advanced development is certainly less common amongst very young firms aged less than three years. Given that this appears to be the case, it might be concluded that the use of increases in employment as a means of measuring growth is not appropriate among young post start-up businesses.

Thus whilst at the macro level post start-up firms, particularly in areas such as Devon and Cornwall, undoubtedly make a major contribution to employment (and, as a result, must be considered in the development of policy), it is apparent that employment growth is an issue of only limited relevance to most individual post start-up businesses. This clearly has implications for both future research and the provision of post start-up support. In terms of future research, it suggests that if growth is to be measured, alternative approaches must be adopted. This might entail

the use of different quantitative measures. It could be the case that where growth exists among post start-up firms, rather than taking the form of increased employment, it is shown through the improved productivity and performance of existing workers. Therefore increases in revenue, or perhaps sales, might make better measures of growth. Alternatively, it may be possible to adopt a more qualitative approach, focusing more upon improvements and changes in management, systems and structure within businesses.

Implications for post start-up support also exist. If employment growth is not a major issue among such firms, the aims, objectives and targets of support organisations assisting post start-up firms must take this into account. The understandable eagerness of organisations to promote employment growth must be tempered and greater emphasis placed upon helping post start-up firms to build the sound financial and managerial foundations required for any employment growth that might occur during later stages of development. This research highlights a number of areas where firms perceive that support gaps exist. It is important that these are addressed and that support is delivered in a way that is appropriate to business needs if such firms are to be in a good position to take advantage of future opportunities for employment growth. It is when these opportunities arise that additional forms of assistance, more specifically oriented towards the aim of employment growth, may become appropriate.

In delivering support, the issue of perceived individuality of needs is an important issue. Findings from previous research have shown that the influences on small business growth vary between companies, indicating a need for research to focus upon specific sub-groups of firms. This study has found that even within a strictly defined sample of businesses, considerable differences still persist. If the providers of support are to have a greater understanding of the needs of specific groups of firms, some of the most valuable future research is likely to be that which focuses

upon firms from specific sectors or locations or run by certain types of owner-manager (for instance, those owned by individuals with prior ownership experience). With a fuller understanding of such groups of firms, support providers are likely to be in a better position to address the requirements of individual firms, whether they relate to growth or any other issue for which assistance might be needed. However, this research has also argued that in delivering appropriate support and advice to firms, providers must be aware of the perception common amongst owner-managers that the factors influencing their businesses growth are not just common to a certain group of firms, but unique to their own firm. If such perceptions are to be addressed, research must attempt to find ways in which advisors and trainers can evaluate needs and provide support on a much more individual basis. Although few firm conclusions relating to growth can be drawn from this research due to the nature of the sample of firms examined and the measure of growth used, the model proposed in the study begins to examine possible means by which more appropriate and effective support might be developed for post start-up firms as a whole. One of the on-going challenges for future research is to consider how existing support services can be further developed and integrated to most effectively address the varying and individual needs of all post start-up businesses, whilst at the same time providing effective and timely assistance for those firms with growth potential. The adoption by researchers of more appropriate, non-employment based, approaches to measuring and recognising growth among post start-up firms is an important and necessary step if this challenge is to be met.

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## APPENDICES

## **APPENDIX 1**



**Plymouth Business School**

University of Plymouth  
Drake Circus  
Plymouth  
Devon PL4 8AA  
United Kingdom

Telephone: 01752 232800  
Fax: 01752 232853

Mr D T King, BSc (Econ), MSc, FBIM  
Dean

Dear Sir/Madam,

Plymouth Business School, with the assistance of the Devon and Cornwall Training and Enterprise Council, is currently carrying out research into the factors of importance in influencing the performance of small firms that have been established for less than four years in Devon and Cornwall.

**The purpose of the enclosed survey is to find out your views regarding the influence of certain factors on the performance of your firm.**

It is hoped that the results of the research will be used to make future support provision for young small firms in Devon and Cornwall more appropriate to their specific needs. Your help would therefore be greatly appreciated.

**It should take no more than five minutes to tick the relevant boxes. A stamped, addressed envelope is enclosed for the return of completed questionnaires. All information will be treated in the strictest confidence. No data will be published which can be identified as a response from a specific firm.**

If you would be interested in receiving a summary of the findings of this survey, or would be willing to co-operate further with this research, please fill in the details on the last page.

Finally, if you have any enquiries or would like any further information, please do not hesitate to contact me on **(0752) 232850**.

Thank you very much for your assistance with this research.

Yours Sincerely,

Jonathan Lean



THE QUEEN'S  
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1994

**A Questionnaire For The Attention Of Owner-Managers  
Of Small Firms In Devon And Cornwall**

***"Small and Medium Sized Enterprises -  
Performance Determinants and Support  
Provision in Devon and Cornwall"***



**Compiled by Jonathan Lean  
(Plymouth Business School)**

**in collaboration with**

**Devon & Cornwall Training and Enterprise Council**

***Telephone Enquiries: (0752) 232850***



**Company Characteristics** - The following questions are concerned with finding out about the nature of your company.

**1) Company Age** (please tick the appropriate box)

0 - 12 months	<input type="checkbox"/>	31 - 36	<input type="checkbox"/>
13 - 18	<input type="checkbox"/>	Over 36 months	
19 - 24	<input type="checkbox"/>	(3 years) Please state age	<input type="text"/>
25 - 30	<input type="checkbox"/>		

**2) Company Type** (please tick the appropriate box)

Retail Services	<input type="checkbox"/>	Transport	<input type="checkbox"/>
Professional Services	<input type="checkbox"/>	Construction	<input type="checkbox"/>
Tourism	<input type="checkbox"/>	Manufacturing	<input type="checkbox"/>
Agriculture/Fishing/Mining	<input type="checkbox"/>	Other (please specify)	<input type="text"/>

**3) Company Size**

a) Number of Employees (please specify numbers employed at each stage upto the current age of your firm)

At start-up	<input type="text"/>
1 Year after start-up	<input type="text"/>
Now	<input type="text"/>

b) Number of sites/outlets (please specify number at each stage upto the current age of your firm)

At start-up	<input type="text"/>
1 Year after start-up	<input type="text"/>
Now	<input type="text"/>

**4) Company Ownership** (please tick appropriate box)

Sole Trader	<input type="checkbox"/>	Partnership	<input type="checkbox"/>	If partnership -
Cooperative	<input type="checkbox"/>			i) How many partners? <input type="text"/>
Limited Company	<input type="checkbox"/>			ii) Are any partners family members? [YES/NO]
				(please delete as appropriate)

### 5) Company Location

**In which county is your firm located?** *(please tick one box)*

Devon  Cornwall

**Is your firm in an urban or rural location?** *(please tick one box)*

Urban  Rural   
*(cities and large towns)* *(includes small towns and villages)*

### Owner-Manager Characteristics -

The following questions are concerned with finding out more about you and your role as owner-manager of your firm.

### 6) Is your current business the first business you have owned?

[YES/NO] *(please delete as appropriate)*

### 7) Occupation prior to starting your current business *(please tick one box)*

Self-employed	<input type="checkbox"/>	Unemployed	<input type="checkbox"/>
Employee of a firm within the same industry as your current business	<input type="checkbox"/>	In full-time education	<input type="checkbox"/>
Employee of a firm NOT within the same industry as your current business	<input type="checkbox"/>	Voluntary work	<input type="checkbox"/>
		Other <i>(please state)</i>	<input type="text"/>

### 8) Reasons for starting current business *(please tick one box)*

No alternative employment	<input type="checkbox"/>
Unhappy with previous employment	<input type="checkbox"/>
Desire to control own future/a need for independence	<input type="checkbox"/>
Identification of a promising market opportunity	<input type="checkbox"/>
Other <i>(please state reason)</i>	<input type="text"/>

**9) Education/Qualifications** (please tick all qualifications obtained)

None	<input type="checkbox"/>	NVQ	<input type="checkbox"/>
O levels	<input type="checkbox"/>	Professional	
A levels	<input type="checkbox"/>	qualification	<input type="checkbox"/>
Degree	<input type="checkbox"/>	MBA	<input type="checkbox"/>
BTEC	<input type="checkbox"/>	Other (please _____)	
HNC	<input type="checkbox"/>	specify)	
HND	<input type="checkbox"/>		

**10) Sex**

[MALE/FEMALE] (please delete as appropriate)

**11) Age** (please tick one box)

Under 25	<input type="checkbox"/>	45 - 54	<input type="checkbox"/>
25 - 34	<input type="checkbox"/>	55 - 64	<input type="checkbox"/>
35 - 44	<input type="checkbox"/>	65 or over	<input type="checkbox"/>

**Planning** - The following questions are concerned with finding out about business planning procedures within your company.

**12(a) Does your firm undertake any business planning?** (please tick one box)

Yes   
No  (If 'No', go on to question 14)

**12(b) Is planning formal (written) or informal (unwritten)?** (please tick one box)

Formal   
Informal

**12(c) How far ahead do you plan?** (please tick one box)

Upto one month	<input type="checkbox"/>
1-6 months	<input type="checkbox"/>
7-12 months	<input type="checkbox"/>
13-24 months	<input type="checkbox"/>
Over two years	<input type="checkbox"/>

**13(a) Does your plan include objectives/targets for any of the following?** *(please tick one box)*

Earnings  
Return on Investment  
Capital Growth  
Share of the Market  
Sales/earnings ratio

Yes  No

**13(b) Does your plan include the following 'pro forma' (future) financial statements?** *(please tick one box)*

Balance Sheet  
Cash Flow Analysis  
Income Statement

Yes  No

**13(c) Does your plan include plans and budgets for the following?** *(please tick one box)*

Hiring and Training Staff  
Plant/Equipment Acquisition  
Research and Development  
Advertising

Yes  No

**13(d) Does your plan specifically attempt to identify any of the following factors?** *(please tick one box)*

Political Developments  
Personal Family Incomes  
Social Currents/Changes  
Non-Product Technological Breakthroughs  
Staff/Personnel Attitudes  
National Economic Trends

Yes  No

**13(e) Does your firm have procedures for regularly reassessing your plan in the light of the companies actual performance?** *(please tick one box)*

Yes  No

**If Yes, approximately how often is this done?**

Weekly  Monthly   
Quarterly  Half-Yearly   
Annually  Every 1-3 years

## Factors Influencing the Performance of Your Firm

**14) External Factors** - Below is a list of factors external to firms which may have an effect upon the growth of young firms. Please rate the importance of each of the factors in influencing the current growth level of your firm. (for each factor, tick one box on the 1 to 5 scale)

	Extremely Important	Important	Neither Important Nor Unimportant	Unimportant	Extremely Unimportant
	1	2	3	4	5
State of National Economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State of Regional Economy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of Skilled Labour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of Materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of Suitable Premises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning Restrictions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Company Location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of Business Rates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Availability of Finance from Lenders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of Interest Rate on Loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speed of Debt Payment by Customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Level of Competing Firms Products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality of Competing Firms Products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of Market Demand for Your Product/Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Factors Specific to Your Own Sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please Specify Relevant Factor [ _____ ]					
Any Other Factor (please specify [ _____ ])	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**15) Management Factors - Please rate the importance of each of the following *internal factors* in influencing the current growth level of your firm. (for each factor, tick one box on the 1 to 5 scale)**

	Extremely Important <b>1</b>	Important <b>2</b>	Neither Important Nor Unimportant <b>3</b>	Unimportant <b>4</b>	Extremely Unimportant <b>5</b>
Market Research Ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing Ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Develop New Products/Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Develop New Methods of Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Enter New Markets (market diversification)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stock/Inventory Management Ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing Ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Plan for the Long Term Future of Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Understand Your Market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Manage Personnel/Staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Communicate with Customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Borrow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to Generate Funds Internally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adequacy of Cash-Flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Continued on Next Page...*

	Extremely Important <b>1</b>	Important <b>2</b>	Neither Important Nor Unimportant <b>3</b>	Unimportant <b>4</b>	Extremely Unimportant <b>5</b>
Adequacy of Accounting & Financial Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial Management & Accounting Ability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of Fixed Costs (eg. rent)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of Variable Costs (eg. materials)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Productive Capacity of Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level of Staff Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to 'Networks' (ie. formal or informal associations of members of the local business community)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to External Advisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to Know-How (eg. data-bases, new business approaches)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to New Technologies (eg. computers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any Other Factor (please specify) [_____]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**P.T.O.**

**16) Owner-Manager Factors -** The list below highlights possible influences that *you*, as owner-manager, might have on the performance of your firm. Please rate the importance of each factor in influencing the current growth level of your firm. (*for each factor, tick one box on the 1 to 5 scale*)

	Extremely Important <b>1</b>	Important <b>2</b>	Neither Important Nor Unimportant <b>3</b>	Unimportant <b>4</b>	Extremely Unimportant <b>5</b>
Your Education & Training	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Past Work Experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Ability to Cope with Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Desire to Succeed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Persistence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Personal Values	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your Ability to Spread Your Values Amongst Your Staff and Incorporate them into the Operations of Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Level of Family Support that You Receive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any Other Factor ( <i>please specify</i> ) [_____]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**17) Which of the following best describes the broad financial objectives you set out to achieve in starting up your current business?** (*please tick one box*)

- To Achieve Large Profits
- To Achieve Medium Profits
- To Achieve Small Profits
- To 'Get By' Financially

**18) With reference to your firm's current profit performance, how satisfactory have your firm's achievements been in meeting your objectives at start-up?** (*please tick one box*)

- Very Satisfactory  Unsatisfactory
- Satisfactory  Very Unsatisfactory
- Neither Satisfactory Nor Unsatisfactory



**19) Which of the following best describes your growth ambitions (in particular for taking on new staff) for the next five years?** *(please tick one box)*

No Growth/Stay as Now	<input type="checkbox"/>	51 - 100% Growth	<input type="checkbox"/>
1 - 25% Growth	<input type="checkbox"/>	101 - 200% Growth	<input type="checkbox"/>
26 - 50% Growth	<input type="checkbox"/>	Over 200% Growth	<input type="checkbox"/>

**20) Approximately what proportion of your firms trade has been conducted with customers outside of Devon and Cornwall, including exports?** *(please specify proportions at each stage upto the current age of your firm)*

	0 %	1-20 %	21-40 %	41-60 %	60 % or more
At Start-Up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1 Year After Start-Up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Now	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**21) How important are each of the following as barriers to your firm expanding into markets outside Devon and Cornwall?** *(for each factor, tick one box on the 1 to 5 scale)*

	Extremely Important 1	Important 2	Neither Important Nor Unimportant 3	Unimportant 4	Extremely Unimportant 5
Availability of Information About Trading in Other Regions or Countries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language or Cultural Barriers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Limited Desire to Grow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competition in Other Markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial Costs of Expansion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any Other Factor <i>(please specify)</i> [_____]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Again, thank you for taking the time to fill in this questionnaire**

*If you would like a summary of the conclusions of this research, or would be interested in co-operating further in the future, please complete the box below:*

<b>Name:</b> _____
<b>Address:</b> _____
_____
_____
_____ <b>Post Code</b> _____
<b>Telephone:</b> _____

*N.B. The completion of this box is optional.*

*Thank you for your co-operation.*



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Mr D T King, BSc (Econ), MSc, FBIM  
Dean

Dear Sir/Madam,

Earlier this year, you may recall receiving a questionnaire asking you about the factors influencing the growth performance of your firm. This second (and final) questionnaire, designed by Plymouth Business School with the assistance of the Devon and Cornwall Training and Enterprise Council, aims to find out how well you think the support you received through the Business Start-Up scheme actually addressed these factors.

**It doesn't matter if you did not receive or respond to the first questionnaire - your co-operation with this survey would still be appreciated greatly.** It is hoped that the results of the research will be used to make future support provision for young small firms in Devon and Cornwall more appropriate to their specific needs.

**It should take little more than five minutes to tick the relevant boxes. A FREEPOST envelope is enclosed for the return of completed questionnaires. All information will be treated in the strictest confidence. No data will be published which can be identified as a response from a specific firm.**

If you would be interested in receiving a summary of the findings of this survey, or would be willing to co-operate further with this research, please fill in the box on the last page.

Finally, if you have any questions or would like any further information, please do not hesitate to contact me on **(0752) 232850**.

Thank you very much for your assistance with this research.

Yours Sincerely,

Jonathan Lean

**P.S. - If you completed the first questionnaire, you will find some of the questions asked familiar - however, it is important that you answer them again here.**



**THE QUEEN'S  
ANNIVERSARY PRIZES**  
FOR HIGHER AND FURTHER EDUCATION

1994

**A Questionnaire For The Attention Of Owner-Managers  
Of Small Firms In Devon And Cornwall**

***Survey Number 2***



***"Small Firms-  
An Assessment of Support Provision in Devon  
and Cornwall"***

**Compiled by Jonathan Lean  
(Plymouth Business School)**

**in collaboration with**

**Devon & Cornwall Training and Enterprise Council**

***Telephone Enquiries (0752) 232850***

**Company Characteristics**

- The following questions are concerned with finding out more about the nature of your firm.

**1) Company Age** *(please tick the appropriate box)*

0 - 12 months	<input type="checkbox"/>	31 - 36	<input type="checkbox"/>
13 - 18	<input type="checkbox"/>	Over 36 months	
19 - 24	<input type="checkbox"/>	(3 years) <i>Please state age</i>	<input type="text"/>
25 - 30	<input type="checkbox"/>		

**2) Company Type** *(please tick the appropriate box)*

Retail Services	<input type="checkbox"/>	Transport	<input type="checkbox"/>
Professional Services	<input type="checkbox"/>	Construction	<input type="checkbox"/>
Tourism	<input type="checkbox"/>	Manufacturing	<input type="checkbox"/>
Agriculture/Fishing/Mining	<input type="checkbox"/>	Other <i>(please specify)</i>	<input type="text"/>

**3) Company Size**

Number of Employees *(please specify numbers employed at each stage, excluding company owner)*

At Start of First Years Trading	<input type="text"/>
Now	<input type="text"/>

**4) Company Ownership** *(please tick appropriate box)*

Sole Trader	<input type="checkbox"/>	Partnership	<input type="checkbox"/>
Other <i>(please specify)</i>	<input type="text"/>		

**5) Company Location**

**In which county is your firm located?** *(please tick one box)*

Devon  Cornwall

**Is your firm in an urban or rural location?** *(please tick one box)*

Urban  Rural   
*(cities and large towns)* *(includes small towns and villages)*

**Owner-Manager Characteristics** - The following questions are concerned with finding out more about you and your role as owner-manager of your firm.

**6) Is your current business the first business you have owned?**

[YES/NO] *(please delete as appropriate)*

**7) Occupation prior to starting your current business***(please tick one box)*

Self-employed	<input type="checkbox"/>	Unemployed	<input type="checkbox"/>
Employee of a firm within the same industry as your current business	<input type="checkbox"/>	In full-time education	<input type="checkbox"/>
Employee of a firm NOT within the same industry as your current business	<input type="checkbox"/>	Voluntary work	<input type="checkbox"/>
		Other <i>(please state)</i>	<input type="text"/>

**8) Reasons for starting current business** *(please tick one box)*

No alternative employment	<input type="checkbox"/>
Unhappy with previous employment	<input type="checkbox"/>
Desire to control own future/a need for independence	<input type="checkbox"/>
Identification of a promising market opportunity	<input type="checkbox"/>
Other <i>(please state reason)</i>	<input type="text"/>

**9) Education/Qualifications** (please tick all qualifications obtained)

- |          |                          |               |                          |
|----------|--------------------------|---------------|--------------------------|
| None     | <input type="checkbox"/> | NVQ           | <input type="checkbox"/> |
| O levels | <input type="checkbox"/> | Professional  |                          |
| A levels | <input type="checkbox"/> | qualification | <input type="checkbox"/> |
| Degree   | <input type="checkbox"/> | MBA           | <input type="checkbox"/> |
| BTEC     | <input type="checkbox"/> | Other (please | <input type="text"/>     |
| HNC      | <input type="checkbox"/> | specify)      |                          |
| HND      | <input type="checkbox"/> |               |                          |

**10) Sex**

[MALE/FEMALE] (please delete as appropriate)

**11) Age** (please tick one box)

- |          |                          |            |                          |
|----------|--------------------------|------------|--------------------------|
| Under 25 | <input type="checkbox"/> | 45 - 54    | <input type="checkbox"/> |
| 25 - 34  | <input type="checkbox"/> | 55 - 64    | <input type="checkbox"/> |
| 35 - 44  | <input type="checkbox"/> | 65 or over | <input type="checkbox"/> |

**Company Objectives**

**12) Which of the following best describes the broad financial objectives you set out to achieve in starting up your current business?** (please tick one box)

- |                           |                          |
|---------------------------|--------------------------|
| To Achieve Large Profits  | <input type="checkbox"/> |
| To Achieve Medium Profits | <input type="checkbox"/> |
| To Achieve Small Profits  | <input type="checkbox"/> |
| To 'Get By' Financially   | <input type="checkbox"/> |

**13) With reference to your firm's current profit performance, how satisfactory have your firm's achievements been in meeting your objectives at start-up? (please tick one box)**

Very Satisfactory	<input type="checkbox"/>	Unsatisfactory	<input type="checkbox"/>
Satisfactory	<input type="checkbox"/>	Very Unsatisfactory	<input type="checkbox"/>
Neither Satisfactory Nor Unsatisfactory	<input type="checkbox"/>		

**14) Which of the following best describes your growth ambitions (e.g. for taking on new staff) for the next five years? (please tick one box)**

No Growth/Stay as Now	<input type="checkbox"/>	51 - 100% Growth	<input type="checkbox"/>
1 - 25% Growth	<input type="checkbox"/>	101 - 200% Growth	<input type="checkbox"/>
26 - 50% Growth	<input type="checkbox"/>	Over 200% Growth	<input type="checkbox"/>

**15) Approximately what proportion of your firms trade has been conducted with customers outside of Devon and Cornwall, including exports? (please tick appropriate box)**

0%	<input type="checkbox"/>	41-60%	<input type="checkbox"/>
1-20%	<input type="checkbox"/>	Over 60%	<input type="checkbox"/>
21-40%	<input type="checkbox"/>		



## Your Experience of Small Firm Support and Advice Services

### 16) Adequacy of Start-Up Support Provision

Below is a list of factors which influence the growth performance of small firms. Please rate the adequacy of the Start-Up support that YOU received in addressing these factors (*for each factor, tick one box on the 1 to 5 scale*).

	Very Adequately Addressed	Adequately Addressed	Neither Adequately Nor Inadequately Addressed	Inadequately Addressed	Very Inadequately Addressed
	1	2	3	4	5
Doing Market Research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing Products/Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing New Products/Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing New Methods of Production	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entering New Markets (market diversification)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing Stock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning Your Firms Long Term Future	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Understanding Your Market	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing Staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicating with Customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Borrowing Money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generating Funds Internally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achieving Adequate Cash Flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Keeping Financial Records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Continued Overleaf...*

	1	2	3	4	5
Doing Accounts and Managing Finance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Managing Costs (fixed and variable)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Expanding Productive Capacity (eg buying plant)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing Staff Skills (getting training)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting Access to Networks (making business contacts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting Business Advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting Access to Know-How (eg data-bases)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acquiring New Technology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acquiring Labour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acquiring Materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finding Suitable Premises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Finding the Best Location	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retrieving Debts from Customers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Setting Prices for Products/ Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Achieving Quality Standards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Understanding Government Regulations (eg planning)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Understanding the Problems of Operating Within Your Specific Sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coping with Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creating a Business Culture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintaining Your Motivation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**17) With which Enterprise Agency was your Start-Up programme completed ?** *(please tick appropriate box)*

- |                               |                          |
|-------------------------------|--------------------------|
| North Devon Enterprise Agency | <input type="checkbox"/> |
| ACT (Dart Business Centre)    | <input type="checkbox"/> |
| WCET Ltd                      | <input type="checkbox"/> |
| Enterprise Plymouth           | <input type="checkbox"/> |
| Ultra Training Ltd            | <input type="checkbox"/> |
| CC Training                   | <input type="checkbox"/> |
| Don't Know                    | <input type="checkbox"/> |

The following questions are designed to tell us which schemes, *other than Start-Up*, you are familiar with and, if you have taken advantage of them, how useful you think they are.

**18) Scheme Awareness** -Below is a list of small firm support services run through Devon and Cornwall TEC. Please tick those that you have heard of :-

- |  |                          |                             |                          |
|--|--------------------------|-----------------------------|--------------------------|
| Business Advisory Service (BAS)            | <input type="checkbox"/> | Business Angels             | <input type="checkbox"/> |
| Investors In People                        | <input type="checkbox"/> | Business Relocation Service | <input type="checkbox"/> |
| DC TEC Development Fund                    | <input type="checkbox"/> | Second Step                 | <input type="checkbox"/> |
| Workforce Training                         | <input type="checkbox"/> | Assessor Training           | <input type="checkbox"/> |
| Workstart                                  | <input type="checkbox"/> | Business Focus Programme    | <input type="checkbox"/> |
| Management Extension Programme             | <input type="checkbox"/> | Business Link               | <input type="checkbox"/> |
| Business Development Consultancy Programme | <input type="checkbox"/> | Graduate Gateway Programme  | <input type="checkbox"/> |
| DC TEC Information Point                   | <input type="checkbox"/> | Employer Visits Scheme      | <input type="checkbox"/> |
| Training Access Points                     | <input type="checkbox"/> |                             |                          |

**19) Use Of Support**

Have you made use of any of the above services since finishing the Business Start-Up Scheme?

[YES/NO] *(Please delete as appropriate)*

If **NO**, go to question 21.

If **YES**, which service/s have you used? *(Please state below)*

[ ]

**20) Your Experience Of Support** *Only answer if ticked 'YES' in Question 19*

a) What was your aim in seeking further support (excluding Business Start-Up)?  
(Please tick main reason)

To Overcome A Particular Operational Problem

To Help My Firm Grow

For Advice/Support on Training

Other Reason (please state)

b) How useful was the support you received in helping you to achieve your aim?  
(Please tick one box on the scale below)

Very Useful

Useful

Neither Useful or Not Useful

Not Useful

Not At All Useful

Now Go To Question 22

**21) Non-Use of Support**-Why have you not sought further support from Devon and Cornwall TEC since completing the Start-Up scheme?  
(Please tick the main reason) *Only answer if ticked 'NO' in Question 19*

Received Support/Advice from Other Sources (eg friends, accountants)

Poor Opinion of Support Available

No Major Problems/Lack of Need for Help

Start-Up Support Sufficient for Needs

Not Aware of Support Available

Fear Possible Financial Cost

Not Enough Time

No Particular Desire to Grow

Any Other Reason (Please state)

**22) Non Devon and Cornwall TEC Support Received** *(to be answered by all respondents)*

From what other sources have you obtained support in running your business?  
*(please tick as many boxes as necessary)*

- |                               |                          |                            |                          |
|-------------------------------|--------------------------|----------------------------|--------------------------|
| Bank                          | <input type="checkbox"/> | Accountant                 | <input type="checkbox"/> |
| Rural Development Commission  | <input type="checkbox"/> | Prince's Trust             | <input type="checkbox"/> |
| Friends/Other Business People | <input type="checkbox"/> | DTI Consultancy Initiative | <input type="checkbox"/> |
| Other <i>(Please State)</i>   | <input type="checkbox"/> |                            |                          |

**23) How do you think support might be improved to encourage small firms to grow and take on more workers?** *(please give your own opinion - as much or as little as you want to write!)*

**THANK YOU FOR YOUR HELP**

*If you would like a summary of the conclusions of this research, or would be interested in co-operating further in the future, please complete the box below:*

<b>Name:</b> _____
<b>Address:</b> _____
_____
_____
_____ <b>Post Code</b> _____
<b>Telephone:</b> _____

*N.B. The completion of this box is optional.*

*Thank you for your co-operation.*



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Mr D T King, BSc (Econ), MSc, FBIM  
Dean

Mr J Smith,  
109, Higher Road,  
Plymstock,  
Plymouth. PL2 6NY.

27/2/95

Dear Mr Smith,

As you may recall, last year you filled in and returned to me a questionnaire on the Start-Up support you received when setting up your firm. As requested, I have enclosed a brief Executive Summary of the main findings of the study so far. You also kindly indicated that you may be willing to help further with my research.

In order to complete the study, I will be carrying out a small number of informal interviews with owners of small firms in Devon and Cornwall. These will focus upon gaining a better understanding of business owners opinions on support and training and how it might be improved both at start-up and at later stages. I feel that your firm would make an ideal 'case study' and I wonder if you might be willing to spare about a 1/2 hour of your time to meet me and talk about your views.

If so, I would be happy to visit at any time convenient to you - including evenings or weekends if this would be easier. As with the questionnaire, your views would be treated in the strictest confidence.

If you would be willing to help with this research I would be grateful if you could return the enclosed form along with your telephone number so can get in touch to arrange a time to meet. In the meantime, thank you for your help so far and I hope to meet you soon.

Yours Sincerely,

Jonathan Lean

Small Business Research Unit



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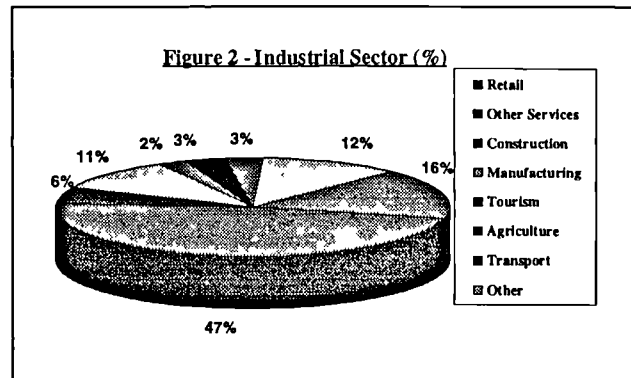
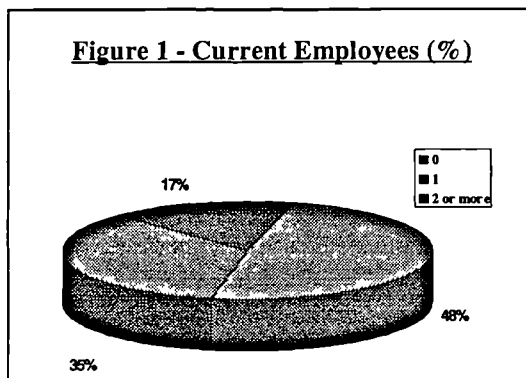
1994

# Devon & Cornwall Business Support Survey

## Executive Summary

### The Sample

- For each of two questionnaires, 580 forms were sent to firms that had recently participated in the Business Start-Up Scheme. 178 forms were returned from the first survey and 183 from the second.
- As the charts below show, most responding owner-managers operated in the service sector and few employed more than 2 workers.



### Questionnaire 1 Results

The main aim of this first questionnaire was to find out which factors were thought to be of greatest importance to the growth performance of companies.

- Figure 3 shows the overall rank order for the Top 10 factors. As shown, the owner-managers ability to communicate with customers was seen as being of primary importance. Further, the existence of particular personal characteristics was regarded as being more important than specific business skills such as marketing.

**Figure 3 - Importance to Growth - Top 10 Ranking**

1	Ability to Communicate with Customers
2	Owner-Manager Persistence
3	Level of Market Demand
4	Owner-Manager Drive
5	Owner-Manager Values
6	Owner-Manager Ability to Cope with Pressure
7	Level of Cash Flow
8	Owner-Manager Training
9	Owner-Manager Business Experience
10	Market Knowledge

- A number of variations were found to exist between firms in the importance attached to particular factors. The greatest differences occurred between firms from different industries and firms employing different numbers of workers.



## Questionnaire 2 Results

The main aim of this survey was to establish how well the factors important to growth revealed in the first survey were addressed during Start-Up training. Factors which - whilst important to growth - were not deemed to be 'trainable' were excluded from the analysis.

- Figure 4 ranks the Top 10 factors which were felt to have been most adequately addressed. Greatest satisfaction was expressed with training and advice in areas such as marketing and financial management.

**Figure 4 - Adequacy of Support - Top 10 Ranking**

1	Keeping Financial Records
2	Managing Finance
3	Doing Market Research
4	Understanding Your Market
5	Managing Costs
6	Getting Business Advice
7	Communicating with Customers
8	Achieving Adequate Cash Flow
9	Marketing Products/Services
10	Long Term Planning

- Relatively little variation occurred between firms with regard to their views on the adequacy of Start-Up support. Where differences did exist, they arose between first time business owners and managers with previous ownership experience.

### Does a 'Gap' Exist Between the Growth Needs of Young Small Businesses and Support Given at Start-Up?

- A statistical examination of differences between the importance ratings given to each factor and the rating given to the ability of Start-Up help to address these factors reveals that in many cases, a significant gap does exist.
- It is therefore possible to conclude that whilst the Start-Up Scheme may be effective in helping owners with the process of establishing their business, its ability to address issues of importance to small firm growth in the crucial post Start-Up stage is more limited.

### Further Research Questions

Whilst this research has given rise to a number of useful findings, some important issues and questions still need to be examined. These include:

- How can the 'training for growth gap' be closed?
- Should the Start-Up Scheme attempt to provide support and training for future growth?
- How else could training be more effectively delivered?
- Is growth related training useful or relevant to young small firms?
- Would support be used?

*Jonathan Lean*  
*Small Business Research Unit*  
*Plymouth Business School*  
*University of Plymouth*  
*Plymouth, PL4 8AA*  
*(01752) 232850*

24/2/95

## *Interview Question Plan*

### **Nature of business**

#### **A) Growth**

- \* Current growth performance/employment
- \* In what ways is current growth influenced by:
  - a) external forces
  - b) internal factors
  - c) OM characteristics (esp. desire to grow)

Overall, what is most important?

- \* Future ambitions & expectations - esp. employment

#### **B) Start-Up**

- \* Where, what was covered?
- \* Overall impressions - inc.re setting up

#### **C) Start-Up as preparation for growth in PSU period**

- \* In what areas (if any) was SU training successful in addressing the factors that are currently the most important influences on your growth performance? Why good? Eg.s?
- \* In what areas was SU training not successful in addressing these factors? Why bad? Eg.s?
- \* Overall, how do you feel about SU as a preparation for early growth - does it address your needs? Why?
- \* Could it be made to better address needs? How? Or should it 'stick to knitting'?

- \* If SU can't address PSU needs, how else might factors influencing growth performance be addressed?
  - \* training      -content  
                          -delivery
  - \* any other way (eg govt. help)
- \* If support only given to firms wanting growth, would you still have applied? Why? Would you have started in business? Why?

#### **D) Other Support**

- \* How would you describe your awareness of other TEC support available? Why aware/not aware?
- \* Would you use it? Why?
- \* In what ways could it be improved/made more accessible?
- \* What other sources of help used (banks, accountants, networks)? Useful? Why?
- \* If currently wanted help/advice about expanding, who would you go to? Would you use a one-stop-shop?
- \* If you were approached by an agency and offered training aimed at helping your firm grow, would you take it up? If free? If a charge? Why?

#### **E) Other/Notes**

Mr R. Smith,  
West Cornwall Enterprise Trust,  
West Cornwall Enterprise Centre,  
Cardrew Industrial Estate,  
Redruth.  
Cornwall.



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Telephone: 01752 232800  
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Mr D T King, BSc (Econ), MSc, FBIM  
Dean

24/5/95

Tel: (01752) 232850

Dear Mr Smith,

As you may be aware, I am currently working on a research project at Plymouth Business School into the factors influencing the growth performance of Devon and Cornwall's small businesses and also owner-managers' perceptions of the ability of existing support provision to address these factors. Most of the data for the study has now been collected through two questionnaire surveys and a round of in-depth interviews with business owners. I have enclosed a brief summary of some of the findings from the two questionnaires with this letter.

In order to complete the project, I am hoping to gain a different perspective on the findings and issues arising from the company surveys and interviews by talking to people actually involved in the provision of support to small firms. To this end, I wonder if you or one of your colleagues might be willing to spare 1/2 hour to 1 hour answering some questions. If possible, I intend to travel to each of the main support providers in the two counties and would be happy to visit your offices at any time convenient to you.

The main areas of interest that I wish to cover are 1) your perceptions of the adequacy of existing support - both during and after the start-up period - in addressing the growth needs of very small businesses which have been established for between 1 and 3 years and 2) your views on how support for this group of firms could be improved.

I shall be telephoning you some time in the next few days to find out if you would be willing to assist with the research and, if you are, to arrange a convenient time for an interview. I look forward to meeting you or one of your colleagues soon.

Yours Sincerely,

Jonathan Lean  
Small Business Research Unit



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## **Provider Interview Plan**

- 1) Nature of company and the services provided for small firms - including start-up.
- 2) From your experience in business support, what factors do you think are most important in influencing the growth performance of PSU firms aged 12-36 months?  
  
Probes - (external, internal, OM related,) why?
- 3) How effective do you think support at start-up is/was in addressing these factors?  
  
Probes - why?
- 4) This research suggests that in areas, there is a gap between the importance attached to particular factors influencing growth and the ability of start-up assistance to address them - why do you think this might be? Also variations between firms (eg previous experience) - why?
- 5) How adequate do you think that the other support available to small businesses of this type is in addressing these factors?  
  
Probes - what is effective; why? Usage is low - how could it be increased? Or should it?
- 6) Ideally, how do you think that existing support could be improved to better address the factors influencing the growth performance of PSU small businesses in Devon and Cornwall?  
  
Probes - how would this be done; why would it be better?
- 7) How feasible would these improvements be?  
  
Probes - if not, why?; if they are, are things being done?
- 8) As a support provider, do you see your role as being an advisory one or as being a provider of training - or neither/both?  
  
Probe - why?
- 9) How do you think the support you give is best delivered?  
  
Probe - why?
- 10) Do you think that small businesses are sufficiently aware of the support available to them?  
  
Probe - if not, how could improvements be made?
- 11) What effect do you think that the establishment of the Business Links will have on support for young PSU businesses?  
  
Probe - Why?

## APPENDIX 2

## APPENDIX 2 - (a) Survey 1 Frequency Tables (All Questions)

Q1 COMPANY AGE(PRIVATE )

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0-12 months	1	30	16.9	16.9	16.9
13-18 months	2	45	25.3	25.3	42.1
19-24 months	3	82	46.1	46.1	88.2
25-30 months	4	17	9.6	9.6	97.8
31-36 months	5	4	2.2	2.2	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

Q2 COMPANY TYPE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Retail Services	1	29	16.3	16.3	16.3
Professional Services	2	84	47.2	47.2	63.5
Tourism	3	4	2.2	2.2	65.7
Agriculture/Fishing/	4	6	3.4	3.4	69.1
Transport	5	5	2.8	2.8	71.9
Construction	6	10	5.6	5.6	77.5
Manufacturing	7	19	10.7	10.7	88.2
Other	8	21	11.8	11.8	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

Q3A START-UP EMPLOYEES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	65	36.5	36.5	36.5
	1	95	53.4	53.4	89.9
	2	16	9.0	9.0	98.9
	3	1	.6	.6	99.4
	21	1	.6	.6	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

Q3B ONE YEAR EMPLOYEES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	54	30.3	34.0	34.0
	1	81	45.5	50.9	84.9
	2	15	8.4	9.4	94.3
	3	5	2.8	3.1	97.5
	4	1	.6	.6	98.1
	7	1	.6	.6	98.7
	16	1	.6	.6	99.4
	24	1	.6	.6	100.0
	.	19	10.7	Missing	
Total		178	100.0	100.0	

Valid cases 159 Missing cases 19

-----  
 Q3C      NOW EMPLOYEES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	48	27.0	28.7	28.7
	1	90	50.6	53.9	82.6
	2	21	11.8	12.6	95.2
	3	5	2.8	3.0	98.2
	5	1	.6	.6	98.8
	10	1	.6	.6	99.4
	13	1	.6	.6	100.0
	.	11	6.2	Missing	
	Total	178	100.0	100.0	

Valid cases    167      Missing cases    11

-----  
 Q3D      START-UP SITES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	21	11.8	12.0	12.0
	1	142	79.8	81.1	93.1
	2	6	3.4	3.4	96.6
	3	3	1.7	1.7	98.3
	4	1	.6	.6	98.9
	10	2	1.1	1.1	100.0
	.	3	1.7	Missing	
	Total	178	100.0	100.0	

Valid cases    175      Missing cases    3

-----  
 Q3E      ONE YEAR SITES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	20	11.2	12.7	12.7
	1	118	66.3	75.2	87.9
	2	7	3.9	4.5	92.4
	3	4	2.2	2.5	94.9
	4	7	3.9	4.5	99.4
	9	1	.6	.6	100.0
	.	21	11.8	Missing	
	Total	178	100.0	100.0	

Valid cases    157      Missing cases    21

-----  
 Q3F      NOW SITES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	21	11.8	12.7	12.7
	1	127	71.3	76.5	89.2
	2	4	2.2	2.4	91.6
	3	6	3.4	3.6	95.2
	4	2	1.1	1.2	96.4
	5	1	.6	.6	97.0
	6	1	.6	.6	97.6
	8	2	1.1	1.2	98.8
	9	2	1.1	1.2	100.0
	.	12	6.7	Missing	
	Total	178	100.0	100.0	

Valid cases    166      Missing cases    12



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Q4A COMPANY OWNERSHIP

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Sole Trader	1	155	87.1	87.1	87.1
Limited Company	3	5	2.8	2.8	89.9
Partnership	4	18	10.1	10.1	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q4B NUMBER OF PARTNERS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	1	.6	5.9	5.9
	2	16	9.0	94.1	100.0
	.	161	90.4	Missing	
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 17 Missing cases 161

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Q4C FAMILY PARTNERS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	14	7.9	82.4	82.4
no	2	3	1.7	17.6	100.0
	.	161	90.4	Missing	
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 17 Missing cases 161

-----

Q5A COMPANY LOCATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Devon	1	133	74.7	74.7	74.7
Cornwall	2	45	25.3	25.3	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q5B URBAN/RURAL

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Urban	1	70	39.3	40.0	40.0
Rural	2	105	59.0	60.0	100.0
	.	3	1.7	Missing	
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 175 Missing cases 3

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Q6      FIRST BUSINESS?

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	137	77.0	77.0	77.0
no	2	41	23.0	23.0	100.0
	Total	178	100.0	100.0	

Valid cases    178      Missing cases    0

-----

Q7      PREVIOUS OCCUPATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Self Employed	1	16	9.0	9.0	9.0
Employee in Same Industry	2	42	23.6	23.6	32.6
Employee not in Same Industry	3	46	25.8	25.8	58.4
Unemployed	4	55	30.9	30.9	89.3
Full Time Education	5	7	3.9	3.9	93.3
Voluntary Work	6	2	1.1	1.1	94.4
Other	7	10	5.6	5.6	100.0
	Total	178	100.0	100.0	

Valid cases    178      Missing cases    0

-----

Q8      START-UP REASONS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Alternative Employment	1	65	36.5	36.5	36.5
Unhappy with Previous Emp.	2	16	9.0	9.0	45.5
Need for Independence	3	60	33.7	33.7	79.2
Identification of Market Opp.	4	21	11.8	11.8	91.0
Other	5	15	8.4	8.4	99.4
	8	1	.6	.6	100.0
	Total	178	100.0	100.0	

Valid cases    178      Missing cases    0

-----

Q9A     NONE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	13	7.3	100.0	100.0
	.	165	92.7	Missing	
	Total	178	100.0	100.0	

Valid cases    13      Missing cases    165

-----

Q9B     O LEVELS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	129	72.5	100.0	100.0
	.	49	27.5	Missing	
	Total	178	100.0	100.0	

Valid cases    129      Missing cases    49

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Q9C      A LEVELS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	54	30.3	100.0	100.0
	.	124	69.7	Missing	
	Total	178	100.0	100.0	

Valid cases      54      Missing cases      124

-----

Q9D      DEGREE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	28	15.7	100.0	100.0
	.	150	84.3	Missing	
	Total	178	100.0	100.0	

Valid cases      28      Missing cases      150

-----

Q9E      BTEC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	15	8.4	100.0	100.0
	.	163	91.6	Missing	
	Total	178	100.0	100.0	

Valid cases      15      Missing cases      163

-----

Q9F      HNC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	10	5.6	100.0	100.0
	.	168	94.4	Missing	
	Total	178	100.0	100.0	

Valid cases      10      Missing cases      168

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Q9G      HND

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	7	3.9	100.0	100.0
	.	171	96.1	Missing	
	Total	178	100.0	100.0	

Valid cases      7      Missing cases      171

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Q9H      NVQ

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	12	6.7	100.0	100.0
	.	166	93.3	Missing	
	Total	178	100.0	100.0	

Valid cases      12      Missing cases      166

-----

Q9I      PROFESSIONAL

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	69	38.8	100.0	100.0
	.	109	61.2	Missing	
	Total	178	100.0	100.0	

Valid cases      69      Missing cases      109

-----

Q9J      MBA

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	2	1.1	100.0	100.0
	.	176	98.9	Missing	
	Total	178	100.0	100.0	

Valid cases      2      Missing cases      176

-----

Q9K      OTHER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	36	20.2	100.0	100.0
	.	142	79.8	Missing	
	Total	178	100.0	100.0	

Valid cases      36      Missing cases      142

-----

Q10      SEX

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Male	1	125	70.2	70.2	70.2
Female	2	53	29.8	29.8	100.0
	Total	178	100.0	100.0	

Valid cases      178      Missing cases      0

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Q11 OM AGE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Under 25	1	17	9.6	9.6	9.6
25-34	2	55	30.9	30.9	40.4
35-44	3	44	24.7	24.7	65.2
45-54	4	44	24.7	24.7	89.9
55-64	5	18	10.1	10.1	100.0
	Total	178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q12A BUSINESS PLANNING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	117	65.7	66.5	66.5
no	2	59	33.1	33.5	100.0
.	.	2	1.1	Missing	
	Total	178	100.0	100.0	

Valid cases 176 Missing cases 2

-----

Q12B FORMAL/INFORMAL

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Formal	1	52	29.2	44.4	44.4
Informal	2	65	36.5	55.6	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

-----

Q12C TIMESCALE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Upto 1 month	1	9	5.1	7.7	7.7
1-6 months	2	39	21.9	33.3	41.0
7-12 months	3	47	26.4	40.2	81.2
13-24 months	4	14	7.9	12.0	93.2
Over 2 years	5	8	4.5	6.8	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

-----

Q13A PLAN TARGETS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	105	59.0	89.7	89.7
no	2	12	6.7	10.3	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

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-----  
 Q13B PRO FORMA STATEMENTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	81	45.5	69.2	69.2
no	2	36	20.2	30.8	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

-----  
 Q13C BUDGET PLANS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	86	48.3	73.5	73.5
no	2	31	17.4	26.5	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

-----  
 Q13D EXTERNAL PLANNING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	55	30.9	47.0	47.0
no	2	62	34.8	53.0	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

-----  
 Q13E STRATEGIC MANAGEMENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	91	51.1	77.8	77.8
no	2	26	14.6	22.2	100.0
.	.	61	34.3	Missing	
	Total	178	100.0	100.0	

Valid cases 117 Missing cases 61

-----  
 Q13F SM FREQUENCY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Weekly	1	11	6.2	12.0	12.0
Monthly	2	46	25.8	50.0	62.0
Quarterly	3	24	13.5	26.1	88.0
Half Yearly	4	5	2.8	5.4	93.5
Annually	5	5	2.8	5.4	98.9
Every 1-3 Years	6	1	.6	1.1	100.0
.	.	86	48.3	Missing	
	Total	178	100.0	100.0	

Valid cases 92 Missing cases 86

-----  
 Q14A NATIONAL ECONOMY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	55	30.9	30.9	30.9
Important	2	87	48.9	48.9	79.8
Neither Important Nor Unimportant	3	29	16.3	16.3	96.1
Extremely Unimportant	4	6	3.4	3.4	99.4
	5	1	.6	.6	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

-----  
 Q14B REGIONAL ECONOMY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	63	35.4	35.4	35.4
Important	2	78	43.8	43.8	79.2
Neither Important Nor Unimportant	3	26	14.6	14.6	93.8
Extremely Unimportant	4	9	5.1	5.1	98.9
	5	2	1.1	1.1	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

-----  
 Q14C LABOUR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	5	2.8	2.8	2.8
Important	2	26	14.6	14.6	17.4
Neither Important Nor Unimportant	3	42	23.6	23.6	41.0
Extremely Unimportant	4	52	29.2	29.2	70.2
	5	53	29.8	29.8	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14D MATERIALS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	41	23.0	23.0	23.0
Important	2	48	27.0	27.0	50.0
Neither Important Nor Unimportant	3	26	14.6	14.6	64.6
Extremely Unimportant	4	27	15.2	15.2	79.8
	5	36	20.2	20.2	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14E PREMISES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	27	15.2	15.2	15.2
Important	2	37	20.8	20.8	36.0
Neither Important Nor Unimportant	3	38	21.3	21.3	57.3
Extremely Unimportant	4	42	23.6	23.6	80.9
	5	34	19.1	19.1	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14F PLANNING RESTRICTIONS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	10	5.6	5.6	5.6
Important	2	27	15.2	15.2	20.8
Neither Important Nor Unimportant	3	43	24.2	24.2	44.9
Unimportant	4	48	27.0	27.0	71.9
Extremely Unimportant	5	50	28.1	28.1	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14G LOCATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	20	11.2	11.2	11.2
Important	2	51	28.7	28.7	39.9
Neither Important Nor Unimportant	3	48	27.0	27.0	66.9
Unimportant	4	30	16.9	16.9	83.7
Extremely Unimportant	5	29	16.3	16.3	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14H UBR

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	30	16.9	16.9	16.9
Important	2	32	18.0	18.0	34.8
Neither Important Nor Unimportant	3	38	21.3	21.3	56.2
Unimportant	4	42	23.6	23.6	79.8
Extremely Unimportant	5	36	20.2	20.2	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14I FINANCE AVAILABILITY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	25	14.0	14.0	14.0
Important	2	44	24.7	24.7	38.8
Neither Important Nor Unimportant	3	33	18.5	18.5	57.3
Unimportant	4	42	23.6	23.6	80.9
Extremely Unimportant	5	34	19.1	19.1	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q14J INTEREST

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	38	21.3	21.3	21.3
Important	2	36	20.2	20.2	41.6
Neither Important Nor Unimportant	3	35	19.7	19.7	61.2
Unimportant	4	36	20.2	20.2	81.5
Extremely Unimportant	5	33	18.5	18.5	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0



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Q14K DEBT PAYMENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	66	37.1	37.1	37.1
Important	2	64	36.0	36.0	73.0
Neither Important Nor Unimportant	3	20	11.2	11.2	84.3
Unimportant	4	9	5.1	5.1	89.3
Extremely Unimportant	5	19	10.7	10.7	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q14L PRICE COMPETITION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	45	25.3	25.3	25.3
Important	2	87	48.9	48.9	74.2
Neither Important Nor Unimportant	3	31	17.4	17.4	91.6
Unimportant	4	10	5.6	5.6	97.2
Extremely Unimportant	5	5	2.8	2.8	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q14M QUALITY COMPETITION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	48	27.0	27.0	27.0
Important	2	86	48.3	48.3	75.3
Neither Important Nor Unimportant	3	30	16.9	16.9	92.1
Unimportant	4	7	3.9	3.9	96.1
Extremely Unimportant	5	7	3.9	3.9	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q14N DEMAND

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	118	66.3	66.3	66.3
Important	2	49	27.5	27.5	93.8
Neither Important Nor Unimportant	3	8	4.5	4.5	98.3
Unimportant	4	2	1.1	1.1	99.4
Extremely Unimportant	5	1	.6	.6	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q14O SECTOR SPECIFIC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	43	24.2	28.3	28.3
Important	2	62	34.8	40.8	69.1
Neither Important Nor Unimportant	3	32	18.0	21.1	90.1
Unimportant	4	8	4.5	5.3	95.4
Extremely Unimportant	5	7	3.9	4.6	100.0
.	.	26	14.6	Missing	
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 152 Missing cases 26

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 Q14P OTHER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	10	5.6	66.7	66.7
Important	2	5	2.8	33.3	100.0
.	.	163	91.6	Missing	
Total		178	100.0	100.0	

Valid cases 15 Missing cases 163

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 Q150 FINANCIAL DATA

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	49	27.5	27.5	27.5
Important	2	92	51.7	51.7	79.2
Neither Important Nor	3	30	16.9	16.9	96.1
Unimportant	4	4	2.2	2.2	98.3
Extremely Unimportant	5	3	1.7	1.7	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15A MARKET RESEARCH

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	30	16.9	16.9	16.9
Important	2	85	47.8	47.8	64.6
Neither Important Nor	3	46	25.8	25.8	90.4
Unimportant	4	13	7.3	7.3	97.8
Extremely Unimportant	5	4	2.2	2.2	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15B MARKETING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	56	31.5	31.5	31.5
Important	2	93	52.2	52.2	83.7
Neither Important Nor	3	24	13.5	13.5	97.2
Unimportant	4	3	1.7	1.7	98.9
Extremely Unimportant	5	2	1.1	1.1	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15C PRODUCT DEVELOPMENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	40	22.5	22.5	22.5
Important	2	64	36.0	36.0	58.4
Neither Important Nor	3	47	26.4	26.4	84.8
Unimportant	4	14	7.9	7.9	92.7
Extremely Unimportant	5	13	7.3	7.3	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q15D      PROCESS DEVELOPMENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	22	12.4	12.4	12.4
Important	2	36	20.2	20.2	32.6
Neither Important Nor Unimportant	3	56	31.5	31.5	64.0
Unimportant	4	33	18.5	18.5	82.6
Extremely Unimportant	5	31	17.4	17.4	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

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Q15E      MARKET DIVERSIFICATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	44	24.7	24.7	24.7
Important	2	71	39.9	39.9	64.6
Neither Important Nor Unimportant	3	39	21.9	21.9	86.5
Unimportant	4	15	8.4	8.4	94.9
Extremely Unimportant	5	9	5.1	5.1	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

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Q15F      STOCK MANAGEMENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	21	11.8	11.8	11.8
Important	2	52	29.2	29.2	41.0
Neither Important Nor Unimportant	3	46	25.8	25.8	66.9
Unimportant	4	30	16.9	16.9	83.7
Extremely Unimportant	5	29	16.3	16.3	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

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Q15G      PURCHASING ABILITY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	39	21.9	21.9	21.9
Important	2	54	30.3	30.3	52.2
Neither Important Nor Unimportant	3	38	21.3	21.3	73.6
Unimportant	4	22	12.4	12.4	86.0
Extremely Unimportant	5	25	14.0	14.0	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

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Q15H      LONG TERM PLANNING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	33	18.5	18.5	18.5
Important	2	92	51.7	51.7	70.2
Neither Important Nor Unimportant	3	39	21.9	21.9	92.1
Unimportant	4	7	3.9	3.9	96.1
Extremely Unimportant	5	7	3.9	3.9	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

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 Q15I MARKET KNOWLEDGE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	69	38.8	38.8	38.8
Important	2	100	56.2	56.2	94.9
Neither Important Nor Unimportant	3	7	3.9	3.9	98.9
Extremely Unimportant	4	1	.6	.6	99.4
	5	1	.6	.6	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15J PERSONNEL MANAGEMENT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	19	10.7	10.7	10.7
Important	2	44	24.7	24.7	35.4
Neither Important Nor Unimportant	3	50	28.1	28.1	63.5
Extremely Unimportant	4	33	18.5	18.5	82.0
	5	32	18.0	18.0	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15K COMMUNICATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	142	79.8	79.8	79.8
Important	2	33	18.5	18.5	98.3
Neither Important Nor Unimportant	3	2	1.1	1.1	99.4
Extremely Unimportant	5	1	.6	.6	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15L BORROWING ABILITY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	20	11.2	11.2	11.2
Important	2	44	24.7	24.7	36.0
Neither Important Nor Unimportant	3	53	29.8	29.8	65.7
Extremely Unimportant	4	33	18.5	18.5	84.3
	5	28	15.7	15.7	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15M INTERNAL FUNDING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	40	22.5	22.5	22.5
Important	2	68	38.2	38.2	60.7
Neither Important Nor Unimportant	3	48	27.0	27.0	87.6
Extremely Unimportant	4	12	6.7	6.7	94.4
	5	10	5.6	5.6	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15N CASH FLOW

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	96	53.9	53.9	53.9
Important	2	68	38.2	38.2	92.1
Neither Important Nor Unimportant	3	11	6.2	6.2	98.3
Unimportant	4	2	1.1	1.1	99.4
Extremely Unimportant	5	1	.6	.6	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15P FINANCIAL ABILITY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	52	29.2	29.2	29.2
Important	2	85	47.8	47.8	77.0
Neither Important Nor Unimportant	3	32	18.0	18.0	94.9
Unimportant	4	6	3.4	3.4	98.3
Extremely Unimportant	5	3	1.7	1.7	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15Q FIXED COSTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	41	23.0	23.0	23.0
Important	2	74	41.6	41.6	64.6
Neither Important Nor Unimportant	3	37	20.8	20.8	85.4
Unimportant	4	13	7.3	7.3	92.7
Extremely Unimportant	5	13	7.3	7.3	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15R VARIABLE COSTS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	53	29.8	29.8	29.8
Important	2	73	41.0	41.0	70.8
Neither Important Nor Unimportant	3	34	19.1	19.1	89.9
Unimportant	4	11	6.2	6.2	96.1
Extremely Unimportant	5	7	3.9	3.9	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15S PRODUCTIVE CAPACITY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	47	26.4	26.4	26.4
Important	2	68	38.2	38.2	64.6
Neither Important Nor Unimportant	3	38	21.3	21.3	86.0
Unimportant	4	10	5.6	5.6	91.6
Extremely Unimportant	5	15	8.4	8.4	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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 Q15T STAFF SKILLS

Value Label	Value	Frequency	Percent	Valid Percent	Cum percent
Extremely Important	1	64	36.0	36.0	36.0
Important	2	39	21.9	21.9	57.9
Neither Important Nor Unimportant	3	28	15.7	15.7	73.6
Unimportant	4	21	11.8	11.8	85.4
Extremely Unimportant	5	26	14.6	14.6	100.0
Total		178	100.0	100.0	
Valid cases	178	Missing cases	0		

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 Q15U ACCESS TO NETWORKS

Value Label	Value	Frequency	Percent	Valid Percent	Cum percent
Extremely Important	1	23	12.9	12.9	12.9
Important	2	51	28.7	28.7	41.6
Neither Important Nor Unimportant	3	61	34.3	34.3	75.8
Unimportant	4	25	14.0	14.0	89.9
Extremely Unimportant	5	18	10.1	10.1	100.0
Total		178	100.0	100.0	
Valid cases	178	Missing cases	0		

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 Q15V ACCESS TO ADVISORS

Value Label	Value	Frequency	Percent	Valid Percent	Cum percent
Extremely Important	1	20	11.2	11.2	11.2
Important	2	58	32.6	32.6	43.8
Neither Important Nor Unimportant	3	64	36.0	36.0	79.8
Unimportant	4	22	12.4	12.4	92.1
Extremely Unimportant	5	14	7.9	7.9	100.0
Total		178	100.0	100.0	
Valid cases	178	Missing cases	0		

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 Q15W ACCESS TO KNOW-HOW

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	24	13.5	13.5	13.5
Important	2	59	33.1	33.1	46.6
Neither Important Nor Unimportant	3	72	40.4	40.4	87.1
Unimportant	4	11	6.2	6.2	93.3
Extremely Unimportant	5	12	6.7	6.7	100.0
Total		178	100.0	100.0	
Valid cases	178	Missing cases	0		

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 Q15X ACCESS TO NEW TECHNOLOGY

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	32	18.0	18.0	18.0
Important	2	51	28.7	28.7	46.6
Neither Important Nor Unimportant	3	66	37.1	37.1	83.7
Unimportant	4	11	6.2	6.2	89.9
Extremely Unimportant	5	18	10.1	10.1	100.0
Total		178	100.0	100.0	
Valid cases	178	Missing cases	0		

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 Q15Y OTHER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	5	2.8	71.4	71.4
Important	2	1	.6	14.3	85.7
Neither Important Nor	3	1	.6	14.3	100.0
.	.	171	96.1	Missing	
Total		178	100.0	100.0	

Valid cases 7 Missing cases 171

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 Q16A OM TRAINING

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	93	52.2	52.5	52.5
Important	2	63	35.4	35.6	88.1
Neither Important Nor	3	17	9.6	9.6	97.7
Unimportant	4	3	1.7	1.7	99.4
Extremely Unimportant	5	1	.6	.6	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16B OM EXPERIENCE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	100	56.2	56.5	56.5
Important	2	52	29.2	29.4	85.9
Neither Important Nor	3	20	11.2	11.3	97.2
Unimportant	4	2	1.1	1.1	98.3
Extremely Unimportant	5	3	1.7	1.7	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16C OM PRESSURE(COPING)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	97	54.5	54.8	54.8
Important	2	71	39.9	40.1	94.9
Neither Important Nor	3	7	3.9	4.0	98.9
Unimportant	4	2	1.1	1.1	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16D OM DRIVE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	112	62.9	63.3	63.3
Important	2	54	30.3	30.5	93.8
Neither Important Nor	3	11	6.2	6.2	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16E OM PERSISTANCE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	113	63.5	63.8	63.8
Important	2	57	32.0	32.2	96.0
Neither Important Nor	3	7	3.9	4.0	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16F OM VALUES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	106	59.6	59.9	59.9
Important	2	62	34.8	35.0	94.9
Neither Important Nor	3	9	5.1	5.1	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16G CORPORATE CULTURE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	38	21.3	21.5	21.5
Important	2	41	23.0	23.2	44.6
Neither Important Nor	3	54	30.3	30.5	75.1
Unimportant	4	19	10.7	10.7	85.9
Extremely Unimportant	5	25	14.0	14.1	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16H FAMILY SUPPORT

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	84	47.2	47.5	47.5
Important	2	60	33.7	33.9	81.4
Neither Important Nor	3	22	12.4	12.4	93.8
Unimportant	4	6	3.4	3.4	97.2
Extremely Unimportant	5	5	2.8	2.8	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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 Q16I OTHER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	10	5.6	83.3	83.3
Important	2	2	1.1	16.7	100.0
.	.	166	93.3	Missing	
Total		178	100.0	100.0	

Valid cases 12 Missing cases 166



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Q17 FINANCIAL OBJECTIVES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
To Achieve Large Profits	1	20	11.2	11.3	11.3
To Achieve Medium Profits	2	82	46.1	46.3	57.6
To Achieve Small Profits	3	50	28.1	28.2	85.9
To Get By	4	25	14.0	14.1	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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Q18 PROFIT PERFORMANCE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Satisfactory	1	31	17.4	17.5	17.5
Satisfactory	2	87	48.9	49.2	66.7
Neither Satisfactory	3	27	15.2	15.3	81.9
Unsatisfactory	4	25	14.0	14.1	96.0
Very Unsatisfactory	5	7	3.9	4.0	100.0
.	.	1	.6	Missing	
Total		178	100.0	100.0	

Valid cases 177 Missing cases 1

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Q19 GROWTH AMBITIONS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Growth	1	27	15.2	15.2	15.2
1-25% Growth	2	47	26.4	26.4	41.6
26-50% Growth	3	42	23.6	23.6	65.2
51-100% Growth	4	40	22.5	22.5	87.6
101-200% Growth	5	10	5.6	5.6	93.3
Over 200% Growth	6	12	6.7	6.7	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

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Q20A START-UP NON D&C TRADE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0%	1	117	65.7	65.7	65.7
1-20%	2	29	16.3	16.3	82.0
21-40%	3	4	2.2	2.2	84.3
41-60%	4	3	1.7	1.7	86.0
60% +	5	25	14.0	14.0	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

-----  
 Q20B ONE YEAR NON D&C TRADE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0%	1	86	48.3	54.1	54.1
1-20%	2	33	18.5	20.8	74.8
21-40%	3	9	5.1	5.7	80.5
41-60%	4	10	5.6	6.3	86.8
60% +	5	21	11.8	13.2	100.0
.	.	19	10.7	Missing	
Total		178	100.0	100.0	

Valid cases 159 Missing cases 19

-----  
 Q20C NOW NON D&C TRADE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0%	1	84	47.2	49.7	49.7
1-20%	2	43	24.2	25.4	75.1
21-40%	3	8	4.5	4.7	79.9
41-60%	4	6	3.4	3.6	83.4
60% +	5	28	15.7	16.6	100.0
.	.	9	5.1	Missing	
Total		178	100.0	100.0	

Valid cases 169 Missing cases 9

-----  
 Q21A TRADE INFORMATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	21	11.8	11.8	11.8
Important	2	39	21.9	21.9	33.7
Neither Important Nor Unimportant	3	57	32.0	32.0	65.7
Unimportant	4	24	13.5	13.5	79.2
Extremely Unimportant	5	37	20.8	20.8	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

-----  
 Q21B TRANSPORTATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	29	16.3	16.3	16.3
Important	2	47	26.4	26.4	42.7
Neither Important Nor Unimportant	3	46	25.8	25.8	68.5
Unimportant	4	21	11.8	11.8	80.3
Extremely Unimportant	5	35	19.7	19.7	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

-----  
 Q21C LANGUAGE/CULTURE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	6	3.4	3.4	3.4
Important	2	21	11.8	11.8	15.2
Neither Important Nor Unimportant	3	76	42.7	42.7	57.9
Unimportant	4	35	19.7	19.7	77.5
Extremely Unimportant	5	40	22.5	22.5	100.0
Total		178	100.0	100.0	

Valid cases 178 Missing cases 0

-----

Q21D      DESIRE TO GROW

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	14	7.9	7.9	7.9
Important	2	41	23.0	23.0	30.9
Neither Important Nor	3	72	40.4	40.4	71.3
Unimportant	4	22	12.4	12.4	83.7
Extremely Unimportant	5	29	16.3	16.3	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

-----

Q21E      COMPETITION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	25	14.0	14.0	14.0
Important	2	49	27.5	27.5	41.6
Neither Important Nor	3	54	30.3	30.3	71.9
Unimportant	4	23	12.9	12.9	84.8
Extremely Unimportant	5	27	15.2	15.2	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

-----

Q21F      EXPANSION COST

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	40	22.5	22.5	22.5
Important	2	45	25.3	25.3	47.8
Neither Important Nor	3	46	25.8	25.8	73.6
Unimportant	4	19	10.7	10.7	84.3
Extremely Unimportant	5	28	15.7	15.7	100.0
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    178      Missing cases    0

-----

Q21G      OTHER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Extremely Important	1	6	3.4	75.0	75.0
Important	2	1	.6	12.5	87.5
Neither Important Nor	3	1	.6	12.5	100.0
.	.	170	95.5	Missing	
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    8      Missing cases    170

-----

GROW      Employment Growth

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Increased	1	27	15.2	16.2	16.2
static	2	136	76.4	81.4	97.6
decreased	3	4	2.2	2.4	100.0
.	.	11	6.2	Missing	
		-----	-----	-----	-----
Total		178	100.0	100.0	

Valid cases    167      Missing cases    11

-----

DEPTH4 d4 - depth of planning

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Planning	1	61	34.3	34.3	34.3
Some Planning	2	84	47.2	47.2	81.5
Strategic Planning	3	33	18.5	18.5	100.0
	Total	178	100.0	100.0	

Valid cases 178 Missing cases 0

-----

## APPENDIX 2 - (b) Variations in Growth

GROW2 employment growth by Q12A BUSINESS PLANNING

Page 1 of 1

	Row Pct Col Pct	Q12A		Row Total
		yes	no	
		1	2	
GROW2				
increased	1	84.6 19.6	15.4 7.5	26 15.8
static/decreased	2	64.7 80.4	35.3 92.5	139 84.2
Column Total		112 67.9	53 32.1	165 100.0

Chi-Square	Value	DF	Significance
Pearson	3.96507	1	.04645
Continuity Correction	3.10623	1	.07799
Likelihood Ratio	4.42290	1	.03546
Mantel-Haenszel test for linear association	3.94104	1	.04712

Minimum Expected Frequency - 8.352

Number of Missing Observations: 13

GROW2 employment growth by Q6 FIRST BUSINESS?

Page 1 of 1

	Row Pct Col Pct	Q6		Row Total
		yes	no	
		1	2	
GROW2				
increased	1	63.0 13.0	37.0 27.8	27 16.2
static/decreased	2	81.4 87.0	18.6 72.2	140 83.8
Column Total		131 78.4	36 21.6	167 100.0

Chi-Square	Value	DF	Significance
Pearson	4.56417	1	.03265
Continuity Correction	3.53749	1	.06000
Likelihood Ratio	4.11502	1	.04250
Mantel-Haenszel test for linear association	4.53684	1	.03317

Minimum Expected Frequency - 5.820

Number of Missing Observations: 11

GROW2 employment growth by RECO2Q19 Growth Ambitions3

Page 1 of 1

	Row Pct Col Pct	RECO2Q19			Row Total
		No Growth	Low Growth	High Growth	
		1	2	3	
GROW2					
increased	1	7.4 7.7	33.3 10.6	59.3 28.6	27 16.2
static/decreased	2	17.1 92.3	54.3 89.4	28.6 71.4	140 83.8
Column Total		26 15.6	85 50.9	56 33.5	167 100.0

Chi-Square	Value	DF	Significance
Pearson	9.68697	2	.00788
Likelihood Ratio	9.23762	2	.00986
Mantel-Haenszel test for linear association	8.01413	1	.00464

Minimum Expected Frequency - 4.204  
Cells with Expected Frequency < 5 - 1 OF 6 ( 16.7%)

Number of Missing Observations: 11

## APPENDIX 2 - (c) Variations in Numbers Employed

RECOQ3C Now Employees by DEPTH4 d4

Page 1 of 1

		DEPTH4			Row Total
Row Pct	Col Pct	No Plann ing	Some Pla nning	Strategi c Planni ng	
		1	2	3	
RECOQ3C					
0	0	39.6 34.5	41.7 24.7	18.8 29.0	48 28.7
1	1	36.7 60.0	51.1 56.8	12.2 35.5	90 53.9
2 or more	2	10.3 5.5	51.7 18.5	37.9 35.5	29 17.4
Column Total		55 32.9	81 48.5	31 18.6	167 100.0

Chi-Square	Value	DF	Significance
Pearson	13.97964	4	.00736
Likelihood Ratio	14.50421	4	.00585
Mantel-Haenszel test for linear association	6.26484	1	.01232

Minimum Expected Frequency - 5.383

Number of Missing Observations: 11

RECOQ3C Now Employees by Q12A BUSINESS PLANNING

Page 1 of 1

		Q12A		Row Total
Row Pct	Col Pct	yes	no	
		1	2	
RECOQ3C				
0	0	61.7 25.9	38.3 34.0	47 28.5
1	1	64.0 50.9	36.0 60.4	89 53.9
2 or more	2	89.7 23.2	10.3 5.7	29 17.6
Column Total		112 67.9	53 32.1	165 100.0

Chi-Square	Value	DF	Significance
Pearson	7.72967	2	.02097
Likelihood Ratio	9.05719	2	.01080
Mantel-Haenszel test for linear association	5.23214	1	.02217

Minimum Expected Frequency - 9.315

Number of Missing Observations: 13

RECOQ3C Now Employees by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		Row Total
Row Pct	Col Pct	yes	no	
		1	2	
RECOQ3C				
0	0	87.5 32.1	12.5 16.7	48 28.7
1	1	80.0 55.0	20.0 50.0	90 53.9
2 or more	2	58.6 13.0	41.4 33.3	29 17.4
Column Total		131 78.4	36 21.6	167 100.0

Chi-Square	Value	DF	Significance
Pearson	9.19603	2	.01007
Likelihood Ratio	8.51635	2	.01415
Mantel-Haenszel test for linear association	8.00588	1	.00466

Minimum Expected Frequency - 6.251

Number of Missing Observations: 11

-----  
 RECOQ3C Now Employees by RECOQ4A Company Ownership

Page 1 of 1

RECOQ3C	Row Pct Col Pct	RECOQ4A		Row Total
		Sole Tra der 1	Other(Pa rtnershi 2	
0	0	87.5 29.0	12.5 27.3	48 28.7
1	1	96.7 60.0	3.3 13.6	90 53.9
2 or more	2	55.2 11.0	44.8 59.1	29 17.4
	Column Total	145 86.8	22 13.2	167 100.0

Chi-Square	Value	DF	Significance
Pearson	33.04176	2	.00000
Likelihood Ratio	27.78365	2	.00000
Mantel-Haenszel test for linear association	10.48650	1	.00120

Minimum Expected Frequency = 3.820  
 Cells with Expected Frequency < 5 = 1 OF 6 ( 16.7%)

Number of Missing Observations: 11

**APPENDIX 2 - (d) Variations in Growth Ambitions**

RECO2Q19 Growth Ambitions3 by Q12A BUSINESS PLANNING

Page 1 of 1

	Row Pct Col Pct	Q12A		Row Total
		yes	no	
		1	2	
RECO2Q19				
No Growth	1	59.3 13.7	40.7 18.6	27 15.3
Low Growth 1-50%	2	59.1 44.4	40.9 61.0	88 50.0
High Growth 51%+	3	80.3 41.9	19.7 20.3	61 34.7
Column Total		117 66.5	59 33.5	176 100.0

Chi-Square	Value	DF	Significance
Pearson	8.02680	2	.01798
Likelihood Ratio	8.45456	2	.01459
Mantel-Haenszel test for linear association	5.92373	1	.01494
Minimum Expected Frequency -	9.051		

Number of Missing Observations: 2

RECO2Q19 Growth Ambitions3 by GROW2 employment growth

Page 1 of 1

	Row Pct Col Pct	GROW2		Row Total
		increase d	static/d increased	
		1	2	
RECO2Q19				
No Growth	1	7.7 7.4	92.3 17.1	26 15.6
Low Growth 1-50%	2	10.6 33.3	89.4 54.3	85 50.9
High Growth 51%+	3	28.6 59.3	71.4 28.6	56 33.5
Column Total		27 16.2	140 83.8	167 100.0

Chi-Square	Value	DF	Significance
Pearson	9.68697	2	.00788
Likelihood Ratio	9.23762	2	.00986
Mantel-Haenszel test for linear association	8.01413	1	.00464
Minimum Expected Frequency -	4.204		
Cells with Expected Frequency < 5 -	1 OF	6 ( 16.7%)	

Number of Missing Observations: 11



RECO2Q19 Growth Ambitions3 by RECOQ2 Company Type

Page 1 of 1

RECO2Q19	Row Pct Col Pct	RECOQ2				Row Total
		1 Retail	2 Professi onal Ser ns/Const	3 Manu/Tra nc.	4 Others(i nc. tour	
No Growth	1	25.9 24.1	33.3 10.7	11.1 8.8	29.6 25.8	27 15.2
	2	10.1 31.0	53.9 57.1	14.6 38.2	21.3 61.3	89 50.0
Low Growth 1-50%	3	21.0 44.8	43.5 32.1	29.0 52.9	6.5 12.9	62 34.8
	Column Total	29 16.3	84 47.2	34 19.1	31 17.4	178 100.0

Chi-Square	Value	DF	Significance
Pearson	19.01395	6	.00414
Likelihood Ratio	19.84355	6	.00295
Mantel-Haenszel test for linear association	1.97463	1	.15996

Minimum Expected Frequency - 4.399  
 Cells with Expected Frequency < 5 - 2 OF 12 ( 16.7%)

Number of Missing Observations: 0

RECO2Q19 Growth Ambitions3 by Q17 FINANCIAL OBJECTIVES

Page 1 of 1

RECO2Q19	Row Pct Col Pct	Q17				Row Total
		1 To Achie ve Large	2 To Achie ve Mediu	3 To Achie ve Small	4 To Get B y	
No Growth	1	14.8 20.0	44.4 14.6	25.9 14.0	14.8 16.0	27 15.3
	2	8.0 35.0	35.2 37.8	37.5 66.0	19.3 68.0	88 49.7
Low Growth 1-50%	3	14.5 45.0	62.9 47.6	16.1 20.0	6.5 16.0	62 35.0
	Column Total	20 11.3	82 46.3	50 28.2	25 14.1	177 100.0

Chi-Square	Value	DF	Significance
Pearson	17.98819	6	.00626
Likelihood Ratio	18.68835	6	.00472
Mantel-Haenszel test for linear association	5.08704	1	.02411

Minimum Expected Frequency - 3.051  
 Cells with Expected Frequency < 5 - 2 OF 12 ( 16.7%)

Number of Missing Observations: 1

## APPENDIX 2 - (e) Variations in Importance of Factors Influencing Growth

Q14D MATERIALS by Q5A COMPANY LOCATION

Page 1 of 1

Q14D	Row Pct Col Pct	Q5A		Row Total
		Devon	Cornwall	
		1	2	
Extremely Imp.	1	78.0	22.0	41
		24.1	20.0	23.0
Important	2	56.3	43.8	48
		20.3	46.7	27.0
Neither	3	80.8	19.2	26
		15.8	11.1	14.6
Unimportant	4	81.5	18.5	27
		16.5	11.1	15.2
Extremely Unimp.	5	86.1	13.9	36
		23.3	11.1	20.2
Column Total		133	45	178
		74.7	25.3	100.0

Chi-Square	Value	DF	Significance
Pearson	12.53921	4	.01376
Likelihood Ratio	11.99310	4	.01740
Mantel-Haenszel test for linear association	3.64196	1	.05634

Minimum Expected Frequency - 6.573

Number of Missing Observations: 0

Q14E PREMISES by RECOQ2 Company Type

Page 1 of 1

Q14E	Row Pct Col Pct	RECOQ2				Row Total
		Retail	Professi onal Ser ns/Const	Manu/Tra nc.	Others(i nc. tour	
		1	2	3	4	
Extremely Imp.	1	14.8	33.3	25.9	25.9	27
		13.8	10.7	20.6	22.6	15.2
Important	2	29.7	27.0	27.0	16.2	37
		37.9	11.9	29.4	19.4	20.8
Neither	3	10.5	39.5	23.7	26.3	38
		13.8	17.9	26.5	32.3	21.3
Unimportant	4	11.9	69.0	9.5	9.5	42
		17.2	34.5	11.8	12.9	23.6
Extremely Unimp.	5	14.7	61.8	11.8	11.8	34
		17.2	25.0	11.8	12.9	19.1
Column Total		29	84	34	31	178
		16.3	47.2	19.1	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	26.28427	12	.00978
Likelihood Ratio	26.07939	12	.01046
Mantel-Haenszel test for linear association	3.30782	1	.06895

Minimum Expected Frequency - 4.399  
Cells with Expected Frequency < 5 - 2 OF 20 ( 10.0%)

Number of Missing Observations: 0

Q14E PREMISES by Q10 SEX

Q10 Page 1 of 1

Q14E	Row Pct Col Pct	Q10		Row Total
		Male	Female	
		1	2	
Extremely Imp.	1	51.9	48.1	27
		11.2	24.5	15.2
Important	2	83.8	16.2	37
		24.8	11.3	20.8
Neither	3	81.6	18.4	38
		24.8	13.2	21.3
Unimportant	4	59.5	40.5	42
		20.0	32.1	23.6
Extremely Unimp.	5	70.6	29.4	34
		19.2	18.9	19.1
Column Total		125	53	178
		70.2	29.8	100.0

Chi-Square	Value	DF	Significance
Pearson	12.25722	4	.01554
Likelihood Ratio	12.40103	4	.01461
Mantel-Haenszel test for linear association	.00640	1	.93623

Minimum Expected Frequency - 8.039

Number of Missing Observations: 0

Q14H UBR by RECOQ2 Company Type

Page 1 of 1

Q14H	Row Pct Col Pct	RECOQ2				Row Total
		Retail	Professi onal Ser	Manu/Tra ns/Const	Others(i nc. tour	
		1	2	3	4	
Extremely Imp.	1	43.3	16.7	30.0	10.0	30
		44.8	6.0	26.5	9.7	16.9
Important	2	21.9	31.3	21.9	25.0	32
		24.1	11.9	20.6	25.8	18.0
Neither	3	5.3	63.2	15.8	15.8	38
		6.9	28.6	17.6	19.4	21.3
Unimportant	4	9.5	61.9	11.9	16.7	42
		13.8	31.0	14.7	22.6	23.6
Extremely Unimp.	5	8.3	52.8	19.4	19.4	36
		10.3	22.6	20.6	22.6	20.2
Column Total		29	84	34	31	178
		16.3	47.2	19.1	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	36.87284	12	.00023
Likelihood Ratio	35.89051	12	.00034
Mantel-Haenszel test for linear association	1.68430	1	.19435

Minimum Expected Frequency - 4.888  
Cells with Expected Frequency < 5 - 1 OF 20 ( 5.0%)

Number of Missing Observations: 0

-----  
 Q14I FINANCE AVAILABILITY by RECOQ2 Company Type

Page 1 of 1

		RECOQ2				
Row Pct	Col Pct	Retail	Professi onal Ser	Manu/Tra ns/Const	Others(i nc. tour	Row
		1	2	3	4	Total
Q14I	1	24.0	28.0	40.0	8.0	25
Extremely	Imp.	20.7	8.3	29.4	6.5	14.0
	2	20.5	34.1	31.8	13.6	44
Important		31.0	17.9	41.2	19.4	24.7
	3	18.2	39.4	18.2	24.2	33
Neither		20.7	15.5	17.6	25.8	18.5
	4	7.1	66.7	2.4	23.8	42
Unimportant		10.3	33.3	2.9	32.3	23.6
	5	14.7	61.8	8.8	14.7	34
Extremely Unimp.		17.2	25.0	8.8	16.1	19.1
Column	Total	29	84	34	31	178
		16.3	47.2	19.1	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	33.67423	12	.00076
Likelihood Ratio	36.46969	12	.00027
Mantel-Haenszel test for linear association	.08609	1	.76920

Minimum Expected Frequency - 4.073  
 Cells with Expected Frequency < 5 - 3 OF 20 ( 15.0%)

Number of Missing Observations: 0

-----  
 Q14I FINANCE AVAILABILITY by GROW2 employment growth

Page 1 of 1

		GROW2		
Row Pct	Col Pct	increase d	static/d eceased	Row
		1	2	Total
Q14I	1	26.1	73.9	23
Extremely	Imp.	22.2	12.1	13.8
	2	28.6	71.4	42
Important		44.4	21.4	25.1
	3	12.9	87.1	31
Neither		14.8	19.3	18.6
	4	10.8	89.2	37
Unimportant		14.8	23.6	22.2
	5	2.9	97.1	34
Extremely Unimp.		3.7	23.6	20.4
Column	Total	27	140	167
		16.2	83.8	100.0

Chi-Square	Value	DF	Significance
Pearson	11.85277	4	.01848
Likelihood Ratio	12.90510	4	.01175
Mantel-Haenszel test for linear association	10.34244	1	.00130

Minimum Expected Frequency - 3.719  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 11

-----  
 Q14I FINANCE AVAILABILITY by RECO2Q19 Growth Ambitions3

Page 1 of 1

		RECO2Q19			Row
Row Pct	Col Pct	No Growth	Low Growth (1-50)	High Growth (51%+)	Total
		1	2	3	
Q14I					
Extremely Imp.	1	8.0	32.0	60.0	25
		7.4	9.0	24.2	14.0
Important	2	13.6	47.7	38.6	44
		22.2	23.6	27.4	24.7
Neither	3	27.3	48.5	24.2	33
		33.3	18.0	12.9	18.5
Unimportant	4	11.9	52.4	35.7	42
		18.5	24.7	24.2	23.6
Extremely Unimp.	5	14.7	64.7	20.6	34
		18.5	24.7	11.3	19.1
Column Total		27	89	62	178
		15.2	50.0	34.8	100.0

Chi-Square	Value	DF	Significance
Pearson	15.38248	8	.05212
Likelihood Ratio	14.73323	8	.06454
Mantel-Haenszel test for linear association	4.59659	1	.03204

Minimum Expected Frequency - 3.792  
 Cells with Expected Frequency < 5 - 1 OF 15 ( 6.7%)

Number of Missing Observations: 0

-----  
 Q14I FINANCE AVAILABILITY by RECOQ3B One Year Employees

Page 1 of 1

		RECOQ3B			Row
Row Pct	Col Pct	0	1	2 or more	Total
		0	1	2	
Q14I					
Extremely Imp.	1	19.0	42.9	38.1	21
		7.4	11.1	33.3	13.2
Important	2	37.5	42.5	20.0	40
		27.8	21.0	33.3	25.2
Neither	3	29.0	58.1	12.9	31
		16.7	22.2	16.7	19.5
Unimportant	4	34.3	57.1	8.6	35
		22.2	24.7	12.5	22.0
Extremely Unimp.	5	43.8	53.1	3.1	32
		25.9	21.0	4.2	20.1
Column Total		54	81	24	159
		34.0	50.9	15.1	100.0

Chi-Square	Value	DF	Significance
Pearson	16.20071	8	.03960
Likelihood Ratio	15.81359	8	.04513
Mantel-Haenszel test for linear association	8.23580	1	.00411

Minimum Expected Frequency - 3.170  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 19

-----  
 Q14I FINANCE AVAILABILITY by RECOQ3C Now Employees

Page 1 of 1

		RECOQ3C			Row
		0	1	2 or more	Total
Row Pct	Col Pct				
		0	1	2	
Q14I					
Extremely Imp.	1	21.7	34.8	43.5	23
		10.4	8.9	34.5	13.8
Important	2	26.2	45.2	28.6	42
		22.9	21.1	41.4	25.1
Neither	3	25.8	64.5	9.7	31
		16.7	22.2	10.3	18.6
Unimportant	4	27.0	64.9	8.1	37
		20.8	26.7	10.3	22.2
Extremely Unimp.	5	41.2	55.9	2.9	34
		29.2	21.1	3.4	20.4
Column Total		48	90	29	167
		28.7	53.9	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	25.11364	8	.00149
Likelihood Ratio	24.76267	8	.00171
Mantel-Haenszel test for linear association	12.85761	1	.00034

Minimum Expected Frequency - 3.994  
 Cells with Expected Frequency < 5 - 1 OF 15 ( 6.7%)

Number of Missing Observations: 11

-----  
 Q14I FINANCE AVAILABILITY by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		Row
		yes	no	Total
Row Pct	Col Pct			
		1	2	
Q14I				
Extremely Imp.	1	52.0	48.0	25
		9.5	29.3	14.0
Important	2	79.5	20.5	44
		25.5	22.0	24.7
Neither	3	84.8	15.2	33
		20.4	12.2	18.5
Unimportant	4	81.0	19.0	42
		24.8	19.5	23.6
Extremely Unimp.	5	79.4	20.6	34
		19.7	17.1	19.1
Column Total		137	41	178
		77.0	23.0	100.0

Chi-Square	Value	DF	Significance
Pearson	10.60261	4	.03141
Likelihood Ratio	9.37871	4	.05230
Mantel-Haenszel test for linear association	3.77353	1	.05207

Minimum Expected Frequency - 5.758

Number of Missing Observations: 0

-----  
 Q14I FINANCE AVAILABILITY by Q12A BUSINESS PLANNING

Page 1 of 1

		Q12A		Row Total
		yes	no	
Row Pct	Col Pct	1	2	
Q14I				
Extremely Imp.	1	84.0	16.0	25
		17.9	6.8	14.2
Important	2	75.0	25.0	44
		28.2	18.6	25.0
Neither	3	63.6	36.4	33
		17.9	20.3	18.8
Unimportant	4	50.0	50.0	40
		17.1	33.9	22.7
Extremely Unimp.	5	64.7	35.3	34
		18.8	20.3	19.3
Column Total		117	59	176
		66.5	33.5	100.0

Chi-Square	Value	DF	Significance
Pearson	9.91933	4	.04181
Likelihood Ratio	10.18080	4	.03749
Mantel-Haenszel test for linear association	5.76980	1	.01630

Minimum Expected Frequency - 8.381

Number of Missing Observations: 2

-----  
 Q14J INTEREST by RECOQ2 Company Type

Page 1 of 1

		RECOQ2				Row Total
		Retail	Professi onal Ser vices	Manu/Tra ns/Const nc.	Others(i tour	
Row Pct	Col Pct	1	2	3	4	
Q14J						
Extremely Imp.	1	18.4	21.1	50.0	10.5	38
		24.1	9.5	55.9	12.9	21.3
Important	2	25.0	47.2	16.7	11.1	36
		31.0	20.2	17.6	12.9	20.2
Neither	3	17.1	48.6	14.3	20.0	35
		20.7	20.2	14.7	22.6	19.7
Unimportant	4	5.6	58.3	5.6	30.6	36
		6.9	25.0	5.9	35.5	20.2
Extremely Unimp.	5	15.2	63.6	6.1	15.2	33
		17.2	25.0	5.9	16.1	18.5
Column Total		29	84	34	31	178
		16.3	47.2	19.1	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	44.30818	12	.00001
Likelihood Ratio	42.33890	12	.00003
Mantel-Haenszel test for linear association	.08439	1	.77144

Minimum Expected Frequency - 5.376

Number of Missing Observations: 0

-----  
 Q14J INTEREST by GROW2 employment growth

Page 1 of 1

		GROW2		Row
Row Pct	Col Pct	increase	static/d	Total
		d	increased	
		1	2	
Q14J				
Extremely Imp.	1	25.7	74.3	35
		33.3	18.6	21.0
Important	2	33.3	66.7	33
		40.7	15.7	19.8
Neither	3	5.7	94.3	35
		7.4	23.6	21.0
Unimportant	4	9.7	90.3	31
		11.1	20.0	18.6
Extremely Unimp.	5	6.1	93.9	33
		7.4	22.1	19.8
Column Total		27	140	167
		16.2	83.8	100.0

Chi-Square	Value	DF	Significance
Pearson	15.80010	4	.00330
Likelihood Ratio	15.72757	4	.00341
Mantel-Haenszel test for linear association	9.65936	1	.00188

Minimum Expected Frequency - 5.012

Number of Missing Observations: 11

-----  
 Q14J INTEREST by RECOQ3C Now Employees

Page 1 of 1

		RECOQ3C			Row
Row Pct	Col Pct	0	1	2 or more	Total
		0	1	2	
Q14J					
Extremely Imp.	1	20.0	51.4	28.6	35
		14.6	20.0	34.5	21.0
Important	2	33.3	30.3	36.4	33
		22.9	11.1	41.4	19.8
Neither	3	31.4	60.0	8.6	35
		22.9	23.3	10.3	21.0
Unimportant	4	19.4	74.2	6.5	31
		12.5	25.6	6.9	18.6
Extremely Unimp.	5	39.4	54.5	6.1	33
		27.1	20.0	6.9	19.8
Column Total		48	90	29	167
		28.7	53.9	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	25.07958	8	.00151
Likelihood Ratio	25.33819	8	.00136
Mantel-Haenszel test for linear association	7.49438	1	.00619

Minimum Expected Frequency - 5.383

Number of Missing Observations: 11



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Q14J INTEREST by RQ9C a levels

Page 1 of 1

Q14J	Row Pct Col Pct	RQ9C		Row Total
		n		
		1	2	
Extremely Imp.	1	18.4	81.6	38
		13.0	25.0	21.3
Important	2	22.2	77.8	36
		14.8	22.6	20.2
Neither	3	51.4	48.6	35
		33.3	13.7	19.7
Unimportant	4	33.3	66.7	36
		22.2	19.4	20.2
Extremely Unimp.	5	27.3	72.7	33
		16.7	19.4	18.5
Column Total		54	124	178
		30.3	69.7	100.0

Chi-Square	Value	DF	Significance
Pearson	11.34169	4	.02298
Likelihood Ratio	11.03577	4	.02616
Mantel-Haenszel test for linear association	1.61160	1	.20427

Minimum Expected Frequency - 10.011

Number of Missing Observations: 0

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Q14K DEBT PAYMENT by Q10 SEX

Page 1 of 1

Q14K	Row Pct Col Pct	Q10		Row Total
		Male	Female	
		1	2	
Extremely Imp.	1	81.8	18.2	66
		43.2	22.6	37.1
Important	2	78.1	21.9	64
		40.0	26.4	36.0
Neither	3	45.0	55.0	20
		7.2	20.8	11.2
Unimportant	4	33.3	66.7	9
		2.4	11.3	5.1
Extremely Unimp.	5	47.4	52.6	19
		7.2	18.9	10.7
Column Total		125	53	178
		70.2	29.8	100.0

Chi-Square	Value	DF	Significance
Pearson	22.84394	4	.00014
Likelihood Ratio	21.68830	4	.00023
Mantel-Haenszel test for linear association	17.28048	1	.00003

Minimum Expected Frequency - 2.680  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 0

-----  
 Q14K DEBT PAYMENT by Q5B URBAN/RURAL

Page 1 of 1

		Q5B		
Row Pct	Col Pct	Urban	Rural	Row Total
		1	2	
Q14K				
Extremely Imp.	1	35.9	64.1	64
		32.9	39.0	36.6
Important	2	42.9	57.1	63
		38.6	34.3	36.0
Neither	3	30.0	70.0	20
		8.6	13.3	11.4
Unimportant	4	11.1	88.9	9
		1.4	7.6	5.1
Extremely Unimp.	5	68.4	31.6	19
		18.6	5.7	10.9
Column Total		70	105	175
		40.0	60.0	100.0

Chi-Square	Value	DF	Significance
Pearson	11.01209	4	.02643
Likelihood Ratio	11.50384	4	.02145
Mantel-Haenszel test for linear association	1.95253	1	.16231

Minimum Expected Frequency - 3.600  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 3

-----  
 Q14F PLANNING RESTRICTIONS by DEPTH4 d4

Page 1 of 1

		DEPTH4			
Row Pct	Col Pct	No Plann ing	Some Pla nning	Strategi c Planni ng	Row Total
		1	2	3	
Q14F					
Extremely Imp.	1	10.0	40.0	50.0	10
		1.6	4.8	15.2	5.6
Important	2	37.0	48.1	14.8	27
		16.4	15.5	12.1	15.2
Neither	3	23.3	62.8	14.0	43
		16.4	32.1	18.2	24.2
Unimportant	4	43.8	33.3	22.9	48
		34.4	19.0	33.3	27.0
Extremely Unimp.	5	38.0	48.0	14.0	50
		31.1	28.6	21.2	28.1
Column Total		61	84	33	178
		34.3	47.2	18.5	100.0

Chi-Square	Value	DF	Significance
Pearson	16.13588	8	.04048
Likelihood Ratio	15.28188	8	.05389
Mantel-Haenszel test for linear association	3.10109	1	.07824

Minimum Expected Frequency - 1.854  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15D PROCESS DEVELOPMENT by RQ9C a

Page 1 of 1

		RQ9C		
Row Pct	Col Pct	y	n	Row Total
		1	2	
Q15D				
Extremely Imp.	1	40.9	59.1	22
		16.7	10.5	12.4
Important	2	33.3	66.7	36
		22.2	19.4	20.2
Neither	3	28.6	71.4	56
		29.6	32.3	31.5
Unimportant	4	42.4	57.6	33
		25.9	15.3	18.5
Extremely Unimp.	5	9.7	90.3	31
		5.6	22.6	17.4
Column Total		54	124	178
		30.3	69.7	100.0

Chi-Square	Value	DF	Significance
Pearson	9.94119	4	.04143
Likelihood Ratio	11.17319	4	.02469
Mantel-Haenszel test for linear association	3.56114	1	.05915

Minimum Expected Frequency - 6.674

Number of Missing Observations: 0

-----  
 Q15E MARKET DIVERSIFICATION by Q12A BUSINESS PLANNING

Page 1 of 1

		Q12A		
Row Pct	Col Pct	yes	no	Row Total
		1	2	
Q15E				
Extremely Imp.	1	79.5	20.5	44
		29.9	15.3	25.0
Important	2	68.1	31.9	69
		40.2	37.3	39.2
Neither	3	56.4	43.6	39
		18.8	28.8	22.2
Unimportant	4	33.3	66.7	15
		4.3	16.9	8.5
Extremely Unimp.	5	88.9	11.1	9
		6.8	1.7	5.1
Column Total		117	59	176
		66.5	33.5	100.0

Chi-Square	Value	DF	Significance
Pearson	14.65123	4	.00548
Likelihood Ratio	14.74392	4	.00526
Mantel-Haenszel test for linear association	3.93701	1	.04724

Minimum Expected Frequency - 3.017  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 2

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Q15E MARKET DIVERSIFICATION by Q5B URBAN/RURAL

Page 1 of 1

		Q5B		
Row Pct	Col Pct	Urban	Rural	Row Total
		1	2	
Q15E				
Extremely Imp.	1	45.5	54.5	44
		28.6	22.9	25.1
Important	2	34.3	65.7	70
		34.3	43.8	40.0
Neither	3	29.7	70.3	37
		15.7	24.8	21.1
Unimportant	4	46.7	53.3	15
		10.0	7.6	8.6
Extremely Unimp.	5	88.9	11.1	9
		11.4	1.0	5.1
Column Total		70	105	175
		40.0	60.0	100.0

Chi-Square	Value	DF	Significance
Pearson	12.36470	4	.01484
Likelihood Ratio	12.87364	4	.01191
Mantel-Haenszel test for linear association	1.61554	1	.20371

Minimum Expected Frequency - 3.600  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 3

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Q15F STOCK MANAGEMENT by RECO2Q19 Growth Ambitions3

Page 1 of 1

		RECO2Q19			
Row Pct	Col Pct	No Growth	Low Growth (1-50 wth	High Growth (51%	Row Total
		1	2	3	
Q15F					
Extremely Imp.	1	14.3	28.6	57.1	21
		11.1	6.7	19.4	11.8
Important	2	15.4	36.5	48.1	52
		29.6	21.3	40.3	29.2
Neither	3	15.2	58.7	26.1	46
		25.9	30.3	19.4	25.8
Unimportant	4	13.3	56.7	30.0	30
		14.8	19.1	14.5	16.9
Extremely Unimp.	5	17.2	69.0	13.8	29
		18.5	22.5	6.5	16.3
Column Total		27	89	62	178
		15.2	50.0	34.8	100.0

Chi-Square	Value	DF	Significance
Pearson	17.53936	8	.02496
Likelihood Ratio	18.26197	8	.01935
Mantel-Haenszel test for linear association	7.26556	1	.00703

Minimum Expected Frequency - 3.185  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15F STOCK MANAGEMENT by Q12A BUSINESS PLANNING

Page 1 of 1

Q15F	Row Pct Col Pct	Q12A		Row Total
		yes	no	
		1	2	
Extremely Imp.	1	90.5	9.5	21
		16.2	3.4	11.9
Important	2	66.7	33.3	51
		29.1	28.8	29.0
Neither	3	71.1	28.9	45
		27.4	22.0	25.6
Unimportant	4	46.7	53.3	30
		12.0	27.1	17.0
Extremely Unimp.	5	62.1	37.9	29
		15.4	18.6	16.5
Column Total		117	59	176
		66.5	33.5	100.0

Chi-Square	Value	DF	Significance
Pearson	11.39797	4	.02244
Likelihood Ratio	12.32381	4	.01510
Mantel-Haenszel test for linear association	5.54115	1	.01857

Minimum Expected Frequency - 7.040

Number of Missing Observations: 2

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Q15F STOCK MANAGEMENT by DEPTH4 d4

Page 1 of 1

Q15F	Row Pct Col Pct	DEPTH4			Row Total
		No Plann ing	Some Pla nning	Strategi c Planni ng	
		1	2	3	
Extremely Imp.	1	9.5	57.1	33.3	21
		3.3	14.3	21.2	11.8
Important	2	34.6	36.5	28.8	52
		29.5	22.6	45.5	29.2
Neither	3	30.4	52.2	17.4	46
		23.0	28.6	24.2	25.8
Unimportant	4	53.3	40.0	6.7	30
		26.2	14.3	6.1	16.9
Extremely Unimp.	5	37.9	58.6	3.4	29
		18.0	20.2	3.0	16.3
Column Total		61	84	33	178
		34.3	47.2	18.5	100.0

Chi-Square	Value	DF	Significance
Pearson	21.64606	8	.00562
Likelihood Ratio	24.39636	8	.00197
Mantel-Haenszel test for linear association	12.33348	1	.00045

Minimum Expected Frequency - 3.893  
 Cells with Expected Frequency < 5 - 1 OF 15 ( 6.7%)

Number of Missing Observations: 0

-----  
 Q15G PURCHASING ABILITY by RECO2Q19 Growth Ambitions3

Page 1 of 1

Row Pct Col Pct		RECO2Q19			Row Total
		No Growt h	Low Grow th (1-50 2)	High Gro wth (51% 3)	
Q15G	1	15.4	25.6	59.0	39
	Extremely Imp.	22.2	11.2	37.1	21.9
	2	11.1	53.7	35.2	54
	Important	22.2	32.6	30.6	30.3
	3	21.1	55.3	23.7	38
Neither	29.6	23.6	14.5	21.3	
4	13.6	54.5	31.8	22	
Unimportant	11.1	13.5	11.3	12.4	
5	16.0	68.0	16.0	25	
Extremely Unimp.	14.8	19.1	6.5	14.0	
Column Total		27	89	62	178
		15.2	50.0	34.8	100.0

Chi-Square	Value	DF	Significance
Pearson	18.68446	8	.01664
Likelihood Ratio	19.17521	8	.01395
Mantel-Haenszel test for linear association	6.73078	1	.00948

Minimum Expected Frequency - 3.337  
 Cells with Expected Frequency < 5 - 2 OF 15 ( 13.3%)

Number of Missing Observations: 0

-----  
 Q15G PURCHASING ABILITY by RQ9D degree

Page 1 of 1

Row Pct Col Pct		RQ9D		Row Total
		y	n	
Q15G	1	7.7	92.3	39
	Extremely Imp.	10.7	24.0	21.9
	2	7.4	92.6	54
	Important	14.3	33.3	30.3
	3	28.9	71.1	38
Neither	39.3	18.0	21.3	
4	18.2	81.8	22	
Unimportant	14.3	12.0	12.4	
5	24.0	76.0	25	
Extremely Unimp.	21.4	12.7	14.0	
Column Total		28	150	178
		15.7	84.3	100.0

Chi-Square	Value	DF	Significance
Pearson	11.11999	4	.02525
Likelihood Ratio	11.10672	4	.02539
Mantel-Haenszel test for linear association	5.73450	1	.01663

Minimum Expected Frequency - 3.461  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15J PERSONNEL MANAGEMENT by RECOQ2 Company Type

Page 1 of 1

		RECOQ2				
Row Pct	Col Pct	Retail	Professi onal Ser vs	Manu/Tra ns/Const nc.	Others(i nc. tour	Row Total
		1	2	3	4	
Q15J						
Extremely	1	21.1	31.6	47.4		19
	Imp.	13.8	7.1	26.5		10.7
Important	2	15.9	38.6	29.5	15.9	44
		24.1	20.2	38.2	22.6	24.7
Neither	3	12.0	50.0	8.0	30.0	50
		20.7	29.8	11.8	48.4	28.1
Unimportant	4	18.2	54.5	15.2	12.1	33
		20.7	21.4	14.7	12.9	18.5
Extremely Unimp.	5	18.8	56.3	9.4	15.6	32
		20.7	21.4	8.8	16.1	18.0
Column		29	84	34	31	178
Total		16.3	47.2	19.1	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	27.75061	12	.00602
Likelihood Ratio	29.06005	12	.00386
Mantel-Haenszel test for linear association	.83896	1	.35970

Minimum Expected Frequency - 3.096  
 Cells with Expected Frequency < 5 - 3 OF 20 ( 15.0%)

Number of Missing Observations: 0

-----  
 Q15J PERSONNEL MANAGEMENT by RECOQ3B One Year Employees

Page 1 of 1

		RECOQ3B			
Row Pct	Col Pct	0	1	2 or mor e	Row Total
		0	1	2	
Q15J					
Extremely	1	12.5	56.3	31.3	16
	Imp.	3.7	11.1	20.8	10.1
Important	2	31.0	40.5	28.6	42
		24.1	21.0	50.0	26.4
Neither	3	47.8	41.3	10.9	46
		40.7	23.5	20.8	28.9
Unimportant	4	28.6	67.9	3.6	28
		14.8	23.5	4.2	17.6
Extremely Unimp.	5	33.3	63.0	3.7	27
		16.7	21.0	4.2	17.0
Column		54	81	24	159
Total		34.0	50.9	15.1	100.0

Chi-Square	Value	DF	Significance
Pearson	22.44525	8	.00415
Likelihood Ratio	23.25385	8	.00305
Mantel-Haenszel test for linear association	6.34411	1	.01178

Minimum Expected Frequency - 2.415  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 19

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Q15J PERSONNEL MANAGEMENT by RECOQ3C Now Employees

Page 1 of 1

Row Pct Col Pct		RECOQ3C			Row Total
		0	1	2 or more	
Q15J	1	11.1	61.1	27.8	18
	Extremely Imp.	4.2	12.2	17.2	10.8
	2	19.0	45.2	35.7	42
	Important	16.7	21.1	51.7	25.1
	3	45.8	39.6	14.6	48
Neither	45.8	21.1	24.1	28.7	
4	26.7	70.0	3.3	30	
Unimportant	16.7	23.3	3.4	18.0	
5	27.6	69.0	3.4	29	
Extremely Unimp.	16.7	22.2	3.4	17.4	
Column Total		48	90	29	167
		28.7	53.9	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	29.62193	8	.00025
Likelihood Ratio	30.87838	8	.00015
Mantel-Haenszel test for linear association	9.23437	1	.00237

Minimum Expected Frequency - 3.126  
 Cells with Expected Frequency < 5 - 1 OF 15 ( 6.7%)

Number of Missing Observations: 11

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Q15J PERSONNEL MANAGEMENT by Q5A COMPANY LOCATION

Page 1 of 1

Row Pct Col Pct		Q5A		Row Total
		Devon	Cornwall	
Q15J	1	78.9	21.1	19
	Extremely Imp.	11.3	8.9	10.7
	2	59.1	40.9	44
	Important	19.5	40.0	24.7
	3	72.0	28.0	50
Neither	27.1	31.1	28.1	
4	90.9	9.1	33	
Unimportant	22.6	6.7	18.5	
5	81.3	18.8	32	
Extremely Unimp.	19.5	13.3	18.0	
Column Total		133	45	178
		74.7	25.3	100.0

Chi-Square	Value	DF	Significance
Pearson	11.36635	4	.02274
Likelihood Ratio	11.90507	4	.01807
Mantel-Haenszel test for linear association	4.11758	1	.04244

Minimum Expected Frequency - 4.803  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 0



-----  
 Q15L BORROWING ABILITY by RECOQ3B One Year Employees

Page 1 of 1

		RECOQ3B			
Row Pct	Col Pct	0	1	2 or more	Row Total
		0	1	2	
Q15L					
Extremely Imp.	1	29.4 9.3	41.2 8.6	29.4 20.8	17 10.7
Important	2	30.0 22.2	45.0 22.2	25.0 41.7	40 25.2
Neither	3	34.7 31.5	51.0 30.9	14.3 29.2	49 30.8
Unimportant	4	34.6 16.7	61.5 19.8	3.8 4.2	26 16.4
Extremely Unimp.	5	40.7 20.4	55.6 18.5	3.7 4.2	27 17.0
Column Total		54 34.0	81 50.9	24 15.1	159 100.0

Chi-Square	Value	DF	Significance
Pearson	11.37656	8	.18126
Likelihood Ratio	12.37792	8	.13512
Mantel-Haenszel test for linear association	5.58665	1	.01810

Minimum Expected Frequency - 2.566  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 19

-----  
 Q15L BORROWING ABILITY by RECO2Q19 Growth Ambitions3

Page 1 of 1

		RECO2Q19			
Row Pct	Col Pct	No Growth	Low Growth (1-5)	High Growth (51%+)	Row Total
		1	2	3	
Q15L					
Extremely Imp.	1	10.0 7.4	20.0 4.5	70.0 22.6	20 11.2
Important	2	4.5 7.4	52.3 25.8	43.2 30.6	44 24.7
Neither	3	22.6 44.4	54.7 32.6	22.6 19.4	53 29.8
Unimportant	4	18.2 22.2	54.5 20.2	27.3 14.5	33 18.5
Extremely Unimp.	5	17.9 18.5	53.6 16.9	28.6 12.9	28 15.7
Column Total		27 15.2	89 50.0	62 34.8	178 100.0

Chi-Square	Value	DF	Significance
Pearson	21.09702	8	.00689
Likelihood Ratio	21.87666	8	.00515
Mantel-Haenszel test for linear association	8.72155	1	.00314

Minimum Expected Frequency - 3.034  
 Cells with Expected Frequency < 5 - 2 OF 15 ( 13.3%)

Number of Missing Observations: 0

-----  
 Q15L BORROWING ABILITY by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		Row Total
Row Pct	Col Pct	yes	no	
		1	2	
Q15L				
Extremely Imp.	1	55.0 8.0	45.0 22.0	20 11.2
Important	2	70.5 22.6	29.5 31.7	44 24.7
Neither	3	79.2 30.7	20.8 26.8	53 29.8
Unimportant	4	87.9 21.2	12.1 9.8	33 18.5
Extremely Unimp.	5	85.7 17.5	14.3 9.8	28 15.7
Column Total		137 77.0	41 23.0	178 100.0

Chi-Square	Value	DF	Significance
Pearson	10.07652	4	.03916
Likelihood Ratio	9.71341	4	.04554
Mantel-Haenszel test for linear association	8.47200	1	.00361

Minimum Expected Frequency - 4.607  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 0

-----  
 Q15M INTERNAL FUNDING by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		Row Total
Row Pct	Col Pct	yes	no	
		1	2	
Q15M				
Extremely Imp.	1	57.5 16.8	42.5 41.5	40 22.5
Important	2	82.4 40.9	17.6 29.3	68 38.2
Neither	3	77.1 27.0	22.9 26.8	48 27.0
Unimportant	4	100.0 8.8		12 6.7
Extremely Unimp.	5	90.0 6.6	10.0 2.4	10 5.6
Column Total		137 77.0	41 23.0	178 100.0

Chi-Square	Value	DF	Significance
Pearson	14.21273	4	.00665
Likelihood Ratio	16.02766	4	.00298
Mantel-Haenszel test for linear association	8.19466	1	.00420

Minimum Expected Frequency - 2.303  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15M INTERNAL FUNDING by Q12A BUSINESS PLANNING

Page 1 of 1

		Q12A		
		yes	no	
Row Pct	Col Pct	1	2	Row Total
Q15M				
Extremely Imp.	1	84.6	15.4	39
		28.2	10.2	22.2
Important	2	63.2	36.8	68
		36.8	42.4	38.6
Neither	3	57.4	42.6	47
		23.1	33.9	26.7
Unimportant	4	50.0	50.0	12
		5.1	10.2	6.8
Extremely Unimp.	5	80.0	20.0	10
		6.8	3.4	5.7
Column Total		117	59	176
		66.5	33.5	100.0

Chi-Square	Value	DF	Significance
Pearson	10.08070	4	.03909
Likelihood Ratio	10.82603	4	.02859
Mantel-Haenszel test for linear association	2.77644	1	.09566

Minimum Expected Frequency - 3.352  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2

-----  
 Q15R VARIABLE COSTS by RQ9D degree

Page 1 of 1

		RQ9D		
		y	n	
Row Pct	Col Pct	1	2	Row Total
Q15R				
Extremely Imp.	1	7.5	92.5	53
		14.3	32.7	29.8
Important	2	15.1	84.9	73
		39.3	41.3	41.0
Neither	3	32.4	67.6	34
		39.3	15.3	19.1
Unimportant	4	18.2	81.8	11
		7.1	6.0	6.2
Extremely Unimp.	5		100.0	7
			4.7	3.9
Column Total		28	150	178
		15.7	84.3	100.0

Chi-Square	Value	DF	Significance
Pearson	11.14512	4	.02498
Likelihood Ratio	11.43284	4	.02211
Mantel-Haenszel test for linear association	2.05253	1	.15195

Minimum Expected Frequency - 1.101  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15Q FIXED COSTS by RQ9D degree

Page 1 of 1

Q15Q	Row Pct Col Pct	RQ9D		Row Total
		y	n	
		1	2	
Extremely Imp.	1	12.2	87.8	41
		17.9	24.0	23.0
Important	2	10.8	89.2	74
		28.6	44.0	41.6
Neither	3	29.7	70.3	37
		39.3	17.3	20.8
Unimportant	4	30.8	69.2	13
		14.3	6.0	7.3
Extremely Unimp.	5		100.0	13
			8.7	7.3
Column Total		28	150	178
		15.7	84.3	100.0

Chi-Square	Value	DF	Significance
Pearson	11.85258	4	.01848
Likelihood Ratio	12.73810	4	.01263
Mantel-Haenszel test for linear association	.64364	1	.42240

Minimum Expected Frequency - 2.045  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15Q FIXED COSTS by Q5B URBAN/RURAL

Page 1 of 1

Q15Q	Row Pct Col Pct	Q5B		Row Total
		Urban	Rural	
		1	2	
Extremely Imp.	1	36.6	63.4	41
		21.4	24.8	23.4
Important	2	27.0	73.0	74
		28.6	51.4	42.3
Neither	3	62.2	37.8	37
		32.9	13.3	21.1
Unimportant	4	45.5	54.5	11
		7.1	5.7	6.3
Extremely Unimp.	5	58.3	41.7	12
		10.0	4.8	6.9
Column Total		70	105	175
		40.0	60.0	100.0

Chi-Square	Value	DF	Significance
Pearson	14.77737	4	.00519
Likelihood Ratio	14.80121	4	.00513
Mantel-Haenszel test for linear association	5.87939	1	.01532

Minimum Expected Frequency - 4.400  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

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Q15S PRODUCTIVE CAPACITY by Q5A COMPANY LOCATION

Page 1 of 1

		Q5A		
		Devon	Cornwall	Row Total
Row Pct	Col Pct	1	2	
Q15S				
	1	80.9	19.1	47
Extremely Imp.		28.6	20.0	26.4
	2	63.2	36.8	68
Important		32.3	55.6	38.2
	3	76.3	23.7	38
Neither		21.8	20.0	21.3
	4	90.0	10.0	10
Unimportant		6.8	2.2	5.6
	5	93.3	6.7	15
Extremely Unimp.		10.5	2.2	8.4
Column Total		133	45	178
		74.7	25.3	100.0

Chi-Square	Value	DF	Significance
Pearson	9.72184	4	.04538
Likelihood Ratio	10.47621	4	.03313
Mantel-Haenszel test for linear association	1.82123	1	.17717

Minimum Expected Frequency - 2.528  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

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Q15S PRODUCTIVE CAPACITY by Q10 SEX

Page 1 of 1

		Q10		
		Male	Female	Row Total
Row Pct	Col Pct	1	2	
Q15S				
	1	61.7	38.3	47
Extremely Imp.		23.2	34.0	26.4
	2	83.8	16.2	68
Important		45.6	20.8	38.2
	3	65.8	34.2	38
Neither		20.0	24.5	21.3
	4	60.0	40.0	10
Unimportant		4.8	7.5	5.6
	5	53.3	46.7	15
Extremely Unimp.		6.4	13.2	8.4
Column Total		125	53	178
		70.2	29.8	100.0

Chi-Square	Value	DF	Significance
Pearson	10.55096	4	.03210
Likelihood Ratio	11.02472	4	.02629
Mantel-Haenszel test for linear association	1.05298	1	.30482

Minimum Expected Frequency - 2.978  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q15T STAFF SKILLS by RECOQ3B One Year Employees

Page 1 of 1

		RECOQ3B			
Row Pct	Col Pct	0	1	2 or more	Row Total
		0	1	2	
Q15T					
Extremely Imp.	1	26.3	50.9	22.8	57
		27.8	35.8	54.2	35.8
Important	2	20.0	60.0	20.0	35
		13.0	25.9	29.2	22.0
Neither	3	42.3	42.3	15.4	26
		20.4	13.6	16.7	16.4
Unimportant	4	50.0	50.0		20
		18.5	12.3		12.6
Extremely Unimp.	5	52.4	47.6		21
		20.4	12.3		13.2
Column Total		54	81	24	159
		34.0	50.9	15.1	100.0

Chi-Square	Value	DF	Significance
Pearson	17.12355	8	.02885
Likelihood Ratio	22.84677	8	.00357
Mantel-Haenszel test for linear association	13.49001	1	.00024

Minimum Expected Frequency - 3.019  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 19

-----  
 Q15T STAFF SKILLS by RECOQ3C Now Employees

Page 1 of 1

		RECOQ3C			
Row Pct	Col Pct	0	1	2 or more	Row Total
		0	1	2	
Q15T					
Extremely Imp.	1	18.3	58.3	23.3	60
		22.9	38.9	48.3	35.9
Important	2	18.9	54.1	27.0	37
		14.6	22.2	34.5	22.2
Neither	3	38.5	46.2	15.4	26
		20.8	13.3	13.8	15.6
Unimportant	4	42.9	52.4	4.8	21
		18.8	12.2	3.4	12.6
Extremely Unimp.	5	47.8	52.2		23
		22.9	13.3		13.8
Column Total		48	90	29	167
		28.7	53.9	17.4	100.0

Chi-Square	Value	DF	Significance
Pearson	18.45185	8	.01808
Likelihood Ratio	22.57318	8	.00396
Mantel-Haenszel test for linear association	15.74798	1	.00007

Minimum Expected Frequency - 3.647  
 Cells with Expected Frequency < 5 - 3 OF 15 ( 20.0%)

Number of Missing Observations: 11

-----  
 Q15X ACCESS TO NEW TECHNOLOGY by Q5A COMPANY LOCATION

Page 1 of 1

		Q5A		
Row Pct	Col Pct	Devon	Cornwall	Row Total
		1	2	
Q15X				
	1	75.0	25.0	32
Extremely	Imp.	18.0	17.8	18.0
	2	78.4	21.6	51
Important		30.1	24.4	28.7
	3	65.2	34.8	66
Neither		32.3	51.1	37.1
	4	72.7	27.3	11
Unimportant		6.0	6.7	6.2
	5	100.0		18
Extremely Unimp.		13.5		10.1
Column		133	45	178
Total		74.7	25.3	100.0

Chi-Square	Value	DF	Significance
Pearson	9.68508	4	.04608
Likelihood Ratio	13.88140	4	.00768
Mantel-Haenszel test for linear association	1.03405	1	.30921

Minimum Expected Frequency - 2.781  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 Q16D OM DRIVE by Q12A BUSINESS PLANNING

Page 1 of 1

		Q12A		
Row Pct	Col Pct	yes	no	Row Total
		1	2	
Q16D				
	1	70.9	29.1	110
Extremely	Imp.	67.2	54.2	62.9
	2	64.8	35.2	54
Important		30.2	32.2	30.9
	3	27.3	72.7	11
Neither		2.6	13.6	6.3
Column		116	59	175
Total		66.3	33.7	100.0

Chi-Square	Value	DF	Significance
Pearson	8.59607	2	.01360
Likelihood Ratio	8.10255	2	.01740
Mantel-Haenszel test for linear association	6.01926	1	.01415

Minimum Expected Frequency - 3.709  
 Cells with Expected Frequency < 5 - 1 OF 6 ( 16.7%)

Number of Missing Observations: 3

-----  
 Q16G CORPORATE CULTURE by GROW2 employment growth

Page 1 of 1

Q16G	Row Pct Col Pct	GROW2		Row Total
		increase d	static/d increased	
		1	2	
Extremely Imp.	1	37.1	62.9	35
		48.1	15.8	21.1
Important	2	23.1	76.9	39
		33.3	21.6	23.5
Neither	3	6.0	94.0	50
		11.1	33.8	30.1
Unimportant	4	10.5	89.5	19
		7.4	12.2	11.4
Extremely Unimp.	5		100.0	23
			16.5	13.9
Column Total		27	139	166
Total		16.3	83.7	100.0

Chi-Square	Value	DF	Significance
Pearson	21.32565	4	.00027
Likelihood Ratio	23.62167	4	.00010
Mantel-Haenszel test for linear association	17.51219	1	.00003

Minimum Expected Frequency - 3.090  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 12

-----  
 Q16G CORPORATE CULTURE by Q6 FIRST BUSINESS?

Page 1 of 1

Q16G	Row Pct Col Pct	Q6		Row Total
		yes	no	
		1	2	
Extremely Imp.	1	63.2	36.8	38
		17.6	34.1	21.5
Important	2	68.3	31.7	41
		20.6	31.7	23.2
Neither	3	79.6	20.4	54
		31.6	26.8	30.5
Unimportant	4	89.5	10.5	19
		12.5	4.9	10.7
Extremely Unimp.	5	96.0	4.0	25
		17.6	2.4	14.1
Column Total		136	41	177
Total		76.8	23.2	100.0

Chi-Square	Value	DF	Significance
Pearson	12.77622	4	.01242
Likelihood Ratio	14.58742	4	.00564
Mantel-Haenszel test for linear association	12.51672	1	.00040

Minimum Expected Frequency - 4.401  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 1



-----  
 Q16G CORPORATE CULTURE by RECOQ3C Now Employees

Page 1 of 1

Q16G	Row Pct Col Pct	RECOQ3C			Row Total
		0	1	2 or more	
		0	1	2	
Extremely Imp.	1	20.0 14.6	48.6 19.1	31.4 37.9	35 21.1
Important	2	20.5 16.7	51.3 22.5	28.2 37.9	39 23.5
Neither	3	38.0 39.6	54.0 30.3	8.0 13.8	50 30.1
Unimportant	4	31.6 12.5	57.9 12.4	10.5 6.9	19 11.4
Extremely Unimp.	5	34.8 16.7	60.9 15.7	4.3 3.4	23 13.9
Column Total		48 28.9	89 53.6	29 17.5	166 100.0

Chi-Square	Value	DF	Significance
Pearson	15.99393	8	.04247
Likelihood Ratio	16.63437	8	.03415
Mantel-Haenszel test for linear association	9.17793	1	.00245

Minimum Expected Frequency - 3.319  
 Cells with Expected Frequency < 5 - 2 OF 15 ( 13.3%)

Number of Missing Observations: 12

## APPENDIX 2 - (f) Cluster Analysis Results

### Cluster Analysis Question 14

\*\*\*\*\* PROXIMITIES \*\*\*\*\*

>Warning # 14783  
>Due to missing data, some cases have been excluded from computations.

Data Information

152 unweighted cases accepted.  
26 cases rejected because of missing value.

Squared Euclidean measure used.

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
1	48	166	1.000000	0	0	9
2	77	142	2.000000	0	0	4
3	71	113	3.500000	0	0	50
4	67	148	5.166667	2	0	34
5	30	120	7.166667	0	0	18
6	3	35	9.166666	0	0	32
7	12	31	11.166666	0	0	31
8	9	17	13.166666	0	0	17
9	43	134	15.499999	1	0	70
10	94	176	18.000000	0	0	61
11	146	163	20.500000	0	0	25
12	129	144	23.000000	0	0	19
13	20	125	25.500000	0	0	67
14	103	106	28.000000	0	0	34
15	7	93	30.500000	0	0	71
16	27	33	33.500000	0	0	81
17	8	145	36.833332	8	0	51
18	28	132	40.166664	5	0	42
19	2	110	43.666664	0	12	33
20	108	111	47.166664	0	0	83
21	4	19	50.666664	0	0	68
22	139	161	54.666664	0	0	51
23	32	130	58.666664	0	0	62
24	66	80	62.666664	0	0	41
25	85	125	66.833328	0	11	75
26	67	178	71.333328	0	0	82
27	61	177	75.833328	0	0	47
28	11	151	80.333328	0	0	68
29	18	114	84.833328	0	7	78
30	16	110	89.333328	0	0	82
31	11	60	93.999992	7	0	73
32	3	15	98.666656	6	0	101
33	2	102	103.416656	19	0	60
34	67	86	108.249992	4	14	97
35	24	165	113.249992	0	0	91
36	89	154	118.249992	0	0	88
37	141	143	123.249992	0	0	74
38	81	140	128.250000	0	0	109
39	119	128	133.250000	0	0	75
40	40	127	138.250000	0	0	77
41	38	57	143.583328	0	24	100
42	28	70	149.000000	18	0	103
43	173	175	154.500000	0	0	78
44	43	167	160.000000	0	0	126
45	112	157	165.500000	0	0	117

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
46	10	107	171.000000	0	0	84
47	53	91	176.500000	27	0	114
48	29	59	182.000000	0	0	87
49	49	57	187.500000	0	0	67
50	28	62	193.333328	0	3	91
51	8	118	199.199997	17	22	76
52	170	172	205.199997	0	0	87
53	124	162	211.199997	0	0	108
54	96	160	217.199997	0	0	117
55	150	155	223.199997	0	0	69
56	54	149	229.199997	0	0	102
57	14	135	235.199997	0	0	90
58	40	72	241.199997	0	0	63
59	22	55	247.199997	0	0	116
60	2	97	253.250000	33	0	93
61	52	79	259.416656	0	10	92
62	30	78	265.083313	23	0	105
63	38	58	272.749969	58	0	115
64	1	153	279.749969	0	0	118
65	105	116	286.749969	0	0	88
66	23	90	293.749969	0	0	110
67	19	44	300.749969	13	49	106
68	4	10	307.749969	21	28	79
69	100	129	315.083313	0	55	86
70	37	43	322.499969	0	9	97
71	6	169	329.999969	15	0	106
72	63	73	337.499969	0	0	96
73	11	83	345.083313	31	0	101
74	69	120	352.749969	0	37	122
75	73	100	360.683289	25	39	84
76	8	138	368.649963	51	0	128
77	32	39	376.983307	40	0	95
78	17	148	385.983307	29	43	107
79	4	159	394.983307	68	0	108
80	64	126	403.983307	0	0	134
81	25	101	412.983307	16	0	119

82	15	58	421.983307	30	26	116
83	76	91	431.149963	0	20	124
84	9	73	440.621399	46	75	103
85	121	158	450.121399	0	0	121
86	47	83	459.788055	0	69	131
87	27	146	469.538055	48	52	112
88	74	88	479.538055	36	65	109
89	13	92	489.538055	0	0	98

\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
90	13	50	499.538055	57	0	133
91	23	26	510.004730	35	50	110
92	41	46	520.588074	0	61	105
93	2	122	531.454712	60	0	120
94	36	68	542.454712	77	0	125
95	32	82	553.621399	0	0	113
96	6	55	564.788086	0	72	121
97	35	67	576.038086	70	34	123
98	12	118	587.371399	89	0	133
99	25	104	598.871399	0	0	126
100	36	46	610.538086	41	0	136
101	3	11	622.478577	32	73	129
102	47	123	634.478577	56	0	132
103	9	28	646.611694	84	42	120
104	21	95	659.111694	0	0	118
105	30	39	672.337891	62	92	131
106	6	19	685.623596	71	67	125
107	8	17	699.023621	0	78	127
108	4	105	713.595032	79	53	132
109	70	74	728.251719	38	88	128
110	22	23	743.033142	66	91	124
111	62	75	758.033142	0	0	138
112	27	152	773.183167	87	0	122
113	32	115	788.683167	95	0	123
114	53	131	804.433167	47	0	130
115	38	133	821.266479	63	0	138
116	15	21	838.933167	82	59	130
117	81	94	856.683167	54	45	129
118	1	20	874.433167	64	104	127
119	25	147	892.933167	81	0	137
120	5	9	913.106079	93	103	135
121	5	102	934.139404	96	85	140
122	27	60	955.322754	112	74	143
123	32	35	979.322754	113	97	141
124	22	66	1003.384644	110	83	139
125	6	34	1027.876709	106	94	134
126	24	40	1052.376709	99	44	143
127	1	7	1078.504517	118	107	135
128	8	70	1104.921143	76	109	136
129	3	81	1132.450317	101	117	139
130	15	53	1160.933594	116	114	137
131	30	42	1190.245239	105	86	141
132	4	47	1220.073853	108	102	142
133	12	13	1250.240479	98	90	140

\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

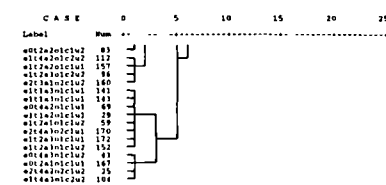
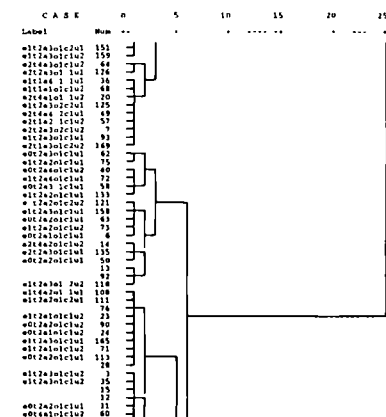
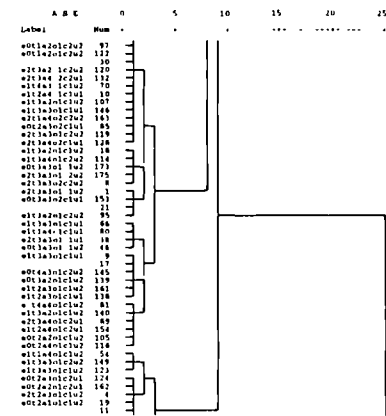
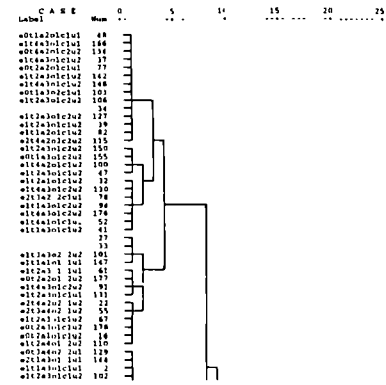
Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
134	6	56	1280.553589	125	80	142
135	1	2	1313.981689	127	120	144
136	8	36	1348.919189	128	100	144
137	15	25	1386.733521	130	119	146
138	38	54	1425.566895	115	111	145
139	3	22	1470.059082	129	124	147
140	5	12	1517.722656	121	133	145
141	30	32	1570.748047	131	123	146
142	4	6	1627.065650	132	134	150
143	24	27	1686.483276	126	122	147
144	1	8	1753.129150	135	136	149
145	5	38	1824.138062	140	138	148
146	15	30	1903.289917	137	141	149
147	3	24	2004.209839	139	143	148
148	3	5	2125.988770	147	145	151
149	1	15	2305.266113	144	146	150
150	1	4	2507.901855	149	142	151
151	1	3	3102.131348	150	148	0

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Dendrogram using Ward Method

Rescaled Distance Cluster Combine



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CLU2\_1 Ward Method Two Clusters of Question 14

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
'Important'	1	102	57.3	67.1	67.1
'Unimportant'	2	50	28.1	32.9	100.0
	.	26	14.6	Missing	
	Total	178	100.0	100.0	

Valid cases 152 Missing cases 26

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Cluster Analysis Question 15

\*\*\*\*\* PROXIMITIES \*\*\*\*\*

Data Information

178 unweighted cases accepted.  
0 cases rejected because of missing value.

Squared Euclidean measure used.

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Stage	Clusters		Coefficient	Agglomeration Schedule using Ward Method		Next Stage
	Cluster 1	Cluster 2		Stage Cluster 1	Stage Cluster 2	
1	45	89	1.500000	0	0	17
2	32	129	3.500000	0	0	14
4	51	105	6.500000	0	0	33
5	72	171	10.000000	0	0	64
6	138	142	13.500000	0	0	87
7	84	86	17.000000	0	0	55
8	4	55	20.500000	0	0	61
9	78	146	24.000000	0	0	102
10	52	134	28.000000	0	0	38
11	119	130	32.000000	0	0	49
12	57	117	36.000000	0	0	20
13	77	93	40.000000	0	0	36
14	32	65	44.000000	0	0	74
15	66	175	48.000000	2	0	52
16	7	161	52.000000	0	0	40
17	45	153	57.000000	0	0	60
18	64	140	61.500000	1	0	28
19	94	127	65.000000	0	0	44
20	104	119	70.500000	0	0	45
21	107	128	75.166664	0	11	69
22	1	109	80.166664	0	0	36
23	6	97	85.166664	0	0	54
24	53	87	90.166664	0	0	97
25	154	176	95.166664	0	0	59
26	17	169	100.666664	0	0	45
27	9	155	106.166664	0	0	78
28	45	85	111.666664	0	0	89
29	71	73	117.166664	17	0	96
30	56	70	122.666664	0	0	56
31	21	54	128.166666	0	0	42
32	3	10	133.666656	0	0	151
33	51	144	139.166656	0	0	68
34	91	178	144.833328	3	0	60
35	43	112	150.833328	0	0	77
36	57	107	156.833328	0	0	99
37	83	98	162.833328	12	21	96
38	2	78	168.833328	0	0	65
39	44	49	174.833328	0	9	82
40	66	163	180.833328	0	0	76
41	42	132	187.000000	15	0	64
42	56	115	193.500000	0	0	59
43	20	103	200.000000	30	0	90
44	30	64	206.500000	0	0	58
45	94	154	213.333328	0	18	114
			220.333328	19	25	69

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
46	18	135	227.333328	0	0	110
47	102	120	234.333328	0	0	75
48	28	74	241.333328	0	0	104
49	52	108	248.666656	10	0	74
50	139	174	256.166656	0	0	133
51	69	151	263.666656	0	0	88
52	32	48	271.166656	14	0	82
53	13	14	278.666656	0	0	77
54	1	150	286.333313	22	0	90
55	37	138	294.166656	0	6	100
56	71	118	302.000000	29	0	87
57	79	124	310.000000	0	0	105
58	20	99	318.166656	43	0	94
59	42	53	326.416656	41	24	113
60	7	51	334.849976	16	33	78
61	35	84	343.349976	0	7	79
62	61	75	351.849976	0	0	102
63	39	59	360.349976	0	0	135
64	5	66	368.983307	4	40	114
65	34	83	377.649963	0	37	73
66	22	170	386.649963	0	0	97
67	101	168	395.649963	0	0	123
68	3	87	404.816620	32	0	103
69	94	104	414.007111	45	20	100
70	88	173	423.507111	0	0	127
71	40	113	433.007111	0	0	101
72	41	80	442.507111	0	0	118
73	34	60	452.590454	65	0	106
74	52	77	462.857117	49	13	107
75	33	102	473.190460	0	47	110
76	12	44	483.857117	0	39	81
77	13	91	494.607117	53	34	98
78	7	17	505.507111	60	26	132
79	35	125	516.507080	61	0	122
80	116	122	527.507080	0	0	115
81	12	19	538.840393	76	0	152
82	2	32	550.197510	38	52	125
83	110	145	561.697510	0	0	103
84	8	126	573.197510	0	0	94
85	63	92	584.697510	0	0	138
86	24	76	596.197510	0	0	149
87	71	72	607.764160	56	5	130
88	11	69	619.597473	0	51	117
89	9	31	631.430786	27	0	98

\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined			Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2	Coefficient	Cluster 1	Cluster 2	
90	1	56	643.264099	54	42	113
91	82	148	655.264099	0	0	116
92	111	177	667.764099	0	0	126
93	157	160	680.264099	0	0	111
94	8	20	692.897461	84	58	145
95	26	162	705.897461	0	0	119
96	45	57	718.897461	28	36	160
97	6	22	731.897461	23	66	141
98	9	13	745.171265	89	77	139
99	43	95	758.504578	35	0	116
100	37	94	772.014099	55	69	145
101	40	167	785.847412	71	0	121
102	4	61	799.847412	8	62	163
103	3	110	814.080750	68	83	148
104	15	28	828.414063	0	48	123
105	79	152	843.080750	57	0	139
106	14	46	857.930725	73	0	142
107	52	106	872.830750	74	0	130
108	90	149	887.830750	0	0	144
109	123	137	902.830750	0	0	159
110	18	33	918.097412	46	75	127
111	100	157	933.597412	0	93	136
112	36	47	949.097412	0	0	120
113	1	42	964.847412	90	59	125
114	5	30	981.589050	64	44	118
115	116	172	998.589050	80	0	132
116	43	82	1015.655701	99	91	158
117	11	156	1032.822388	88	0	143
118	5	4	1050.447388	114	72	146
119	26	136	1068.114014	95	0	135
120	36	68	1085.947388	112	0	146
121	40	141	1104.114014	101	0	128
122	35	81	1122.313965	79	0	144
123	15	101	1141.580688	104	67	148
124	143	158	1161.080688	0	0	133
125	1	2	1180.694092	113	82	142
126	16	111	1201.527466	0	92	137
127	18	88	1223.856079	110	70	134
128	40	165	1246.356079	121	0	138
129	62	131	1269.856079	0	0	162
130	52	71	1294.046997	107	87	137
131	29	159	1318.549997	0	0	149
132	7	116	1343.246948	78	115	147
133	139	143	1368.246948	50	124	169

\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

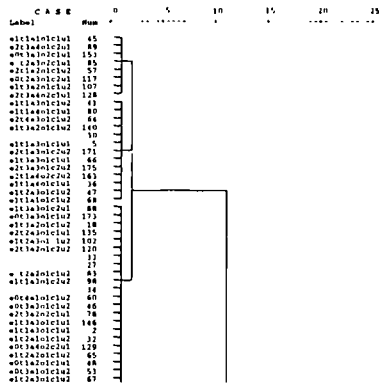
Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined			Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2	Coefficient	Cluster 1	Cluster 2	
134	18	27	1393.818359	127	0	155
135	26	39	1419.451660	119	63	156
136	96	100	1445.451660	0	111	164
137	16	52	1472.455933	126	130	156
138	40	63	1499.527344	128	85	154
139	9	79	1527.005440	98	105	150
140	114	121	1554.503540	0	0	161
141	6	23	1582.303589	97	0	152
142	1	34	1610.596680	125	106	155
143	11	164	1639.296631	117	0	153
144	35	90	1668.810913	122	108	153
145	8	37	1699.110962	94	100	147
146	5	36	1729.623779	118	120	160
147	7	8	1760.283813	132	145	170
148	3	15	1791.783813	103	123	161
149	24	29	1823.783813	86	131	162
150	9	147	1856.238403	139	0	169
151	21	50	1889.405029	31	0	165
152	6	12	1923.049438	141	81	163
153	11	35	1959.385132	143	144	171
154	40	58	1996.313721	138	0	159
155	1	18	2033.283447	142	134	166
156	16	26	2070.528564	137	135	168
157	25	133	2109.028564	0	0	172
158	38	43	2147.628662	0	116	167
159	40	123	2189.928711	154	109	165
160	5	45	2232.582520	146	96	166
161	3	114	2277.915771	148	140	164
162	24	62	2326.249023	149	129	171
163	4	6	2376.419922	102	152	167
164	3	96	2432.586670	161	136	168
165	21	40	2490.350830	151	159	172
166	1	5	2550.017578	155	160	176
167	4	38	2618.191650	163	158	170
168	3	16	2687.932129	164	156	174
169	9	139	2758.077637	150	133	175
170	4	7	2832.014648	167	147	174
171	11	24	2909.931396	153	162	173
172	21	25	3002.333984	165	157	173
173	11	21	3140.958252	171	172	175
174	3	4	3281.990479	168	170	176
175	9	11	3432.487061	169	173	177
176	1	3	3833.184814	166	174	177
177	1	9	4824.651367	176	175	0

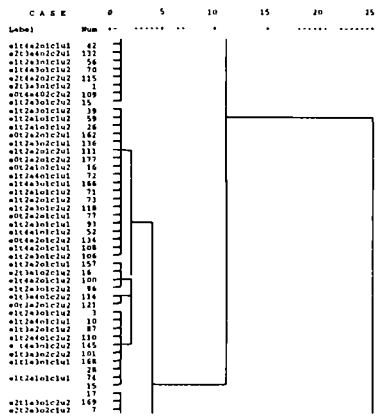
\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Dendrogram using Ward Method

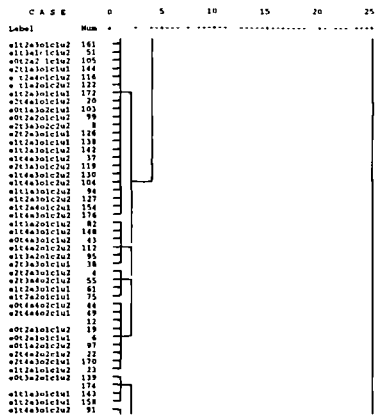
Rescaled Distance Cluster Combine



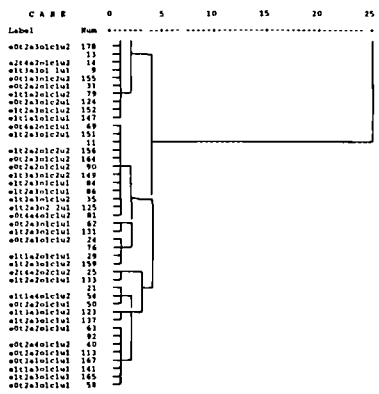
\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*





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CLU2\_2    Ward Method    Two Clusters of Question 15

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
'Important'	1	130	73.0	73.0	73.0
'Unimportant'	2	48	27.0	27.0	100.0
	<b>Total</b>	<b>178</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases    178    Missing cases    0

# Cluster Analysis Question 16

\*\*\*\*\* PROXIMITIES \*\*\*\*\*

>Warning # 14783  
>Due to missing data, some cases have been excluded from computations.

## Data Information

177 unweighted cases accepted.  
1 cases rejected because of missing value.

Squared Euclidean measure used.

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

### Agglomeration Schedule using Ward Method

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
1	31	178	.000000	0	0	99
2	75	177	.000000	0	0	72
3	45	175	.000000	0	0	71
4	145	172	.000000	0	0	12
5	132	171	.000000	0	0	16
6	82	169	.000000	0	0	36
7	20	166	.000000	0	0	45
8	115	161	.000000	0	0	25
9	138	150	.000000	0	0	73
10	100	149	.000000	0	0	32
11	124	147	.000000	0	0	100
12	89	145	.000000	0	4	107
13	142	145	.000000	0	0	14
14	69	141	.000000	0	13	27
15	127	134	.000000	0	0	19
16	18	131	.000000	0	5	18
17	129	130	.000000	0	0	18
18	18	128	.000000	16	17	24
19	41	126	.000000	0	15	43
20	33	126	.000000	0	0	97
21	99	123	.000000	0	0	98
22	110	121	.000000	0	0	27
23	117	119	.000000	0	0	24
24	18	116	.000000	18	23	34
25	88	114	.000000	0	8	97
26	22	114	.000000	0	0	96
27	69	109	.000000	14	22	29
28	106	109	.000000	0	0	29
29	69	105	.000000	27	28	86
30	44	105	.000000	43	0	43
31	91	102	.000000	0	0	34
32	80	99	.000000	0	10	76
33	71	93	.000000	0	0	74
34	18	91	.000000	24	31	37
35	81	85	.000000	0	0	37
36	42	82	.000000	0	6	129
37	18	81	.000000	34	35	39
38	68	78	.000000	0	0	39
39	18	68	.000000	37	38	42
40	57	67	.000000	0	0	42
41	38	66	.000000	0	0	96
42	18	57	.000000	39	40	44
43	41	44	.000000	19	30	83
44	18	27	.000000	42	0	161
45	10	20	.000000	0	7	75

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

### Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
46	108	176	.500000	0	0	106
47	60	170	1.000000	0	0	94
48	5	167	1.500000	0	0	128
49	63	162	2.000000	0	0	81
50	136	160	2.500000	0	0	105
51	140	154	3.000000	0	0	77
52	58	144	3.500000	0	0	78
53	16	141	4.000000	0	0	128
54	13	137	4.500000	0	0	133
55	34	131	5.000000	0	0	113
56	6	125	5.500000	0	0	111
57	112	122	6.000000	0	0	79
58	62	118	6.500000	0	0	101
59	49	116	7.000000	0	0	82
60	104	113	7.500000	0	0	80
61	17	107	8.000000	0	0	94
62	2	97	8.500000	0	0	122
63	1	70	9.000000	0	0	131
64	37	59	9.500000	0	0	105
65	51	53	10.000000	0	0	104
66	28	52	10.500000	0	0	112
67	23	48	11.000000	0	0	115
68	36	46	11.500000	0	0	107
69	12	26	12.000000	0	0	98
70	19	24	12.500000	0	0	132
71	45	173	13.166667	3	0	124
72	75	163	13.833334	2	0	84
73	83	137	14.500001	0	9	113
74	71	111	15.166668	33	0	119
75	10	94	15.916668	45	0	130
76	80	86	16.666668	32	0	85
77	77	139	17.500002	0	51	126
78	58	135	18.333336	52	0	121
79	7	111	19.166670	0	57	88
80	98	103	20.000004	0	60	121
81	63	76	20.833338	49	0	87
82	9	49	21.666672	0	59	125
83	41	164	22.500006	43	0	130
84	3	75	23.333340	0	72	127
85	35	80	24.183340	0	76	141
86	69	157	25.058340	29	0	141
87	54	63	25.975006	0	81	146
88	7	56	26.891672	79	0	125
89	30	174	27.891672	0	0	123

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
90	43	103	28.891672	0	0	98
91	32	90	29.891672	0	0	93
92	55	87	30.891672	0	0	115
93	32	61	31.891672	91	0	126
94	17	60	32.891670	61	47	128
95	14	43	33.891670	0	90	129
96	22	38	34.891670	26	41	124
97	33	88	36.091671	20	25	137
98	12	98	37.341671	69	21	101
99	31	165	38.675003	1	0	119
100	25	123	40.008335	0	11	114
101	12	62	41.425003	98	58	143
102	92	155	42.925003	0	0	143
103	120	143	44.425003	0	0	156
104	51	139	45.925003	65	0	116
105	37	135	47.425003	64	50	140
106	15	107	48.925003	0	46	131
107	36	89	50.425003	68	12	148
108	39	84	51.925003	0	0	146
109	50	74	53.425003	0	0	139
110	11	65	54.925003	0	0	123
111	6	64	56.425003	56	0	138
112	4	28	57.925003	0	66	139
113	34	83	59.558338	55	73	147
114	25	29	61.225006	100	0	158
115	23	55	62.975006	67	92	137
116	8	51	64.725006	0	104	150
117	152	158	66.725006	0	0	132
118	72	133	68.725006	0	0	151
119	31	71	70.725006	99	74	150
120	14	40	72.725006	95	0	154
121	58	97	74.891670	78	80	157
122	2	21	77.058334	62	0	148
123	11	30	79.308334	110	89	147
124	22	45	81.641670	96	71	160
125	7	9	84.058334	88	82	140
126	32	77	86.558334	93	77	138
127	3	47	89.058334	84	0	152
128	5	16	91.558334	48	53	142
129	17	42	94.129761	94	36	156
130	10	41	96.746429	75	83	151
131	1	15	99.446426	63	106	144
132	19	151	102.196426	70	117	153
133	13	151	105.029762	54	0	158

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

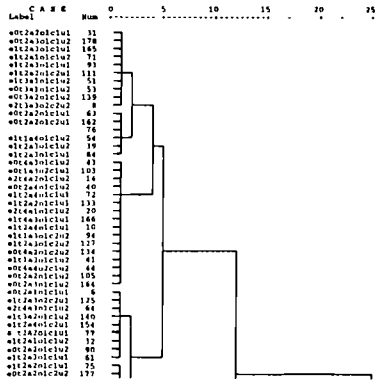
Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
134	79	168	108.029762	0	0	145
135	156	159	111.029762	0	0	158
136	73	153	114.029762	0	0	157
137	23	33	117.135315	115	97	144
138	6	32	120.413094	111	126	165
139	4	50	123.713097	112	109	152
140	7	37	127.031281	125	105	167
141	35	69	130.402435	85	86	164
142	5	96	134.102432	128	0	149
143	12	92	137.810760	101	102	159
144	1	23	141.626633	131	137	160
145	79	128	145.959961	134	0	153
146	39	54	150.543289	108	87	155
147	11	34	155.659958	123	113	164
148	2	36	161.118286	122	107	161
149	5	101	167.084946	142	0	162
150	8	31	173.434952	116	119	155
151	10	72	179.901611	130	118	154
152	3	4	186.501617	127	139	165
153	19	79	193.346863	132	145	171
154	10	14	201.055191	151	120	168
155	8	39	210.059357	150	146	168
156	17	119	219.099045	129	103	166
157	58	73	228.390717	121	136	166
158	13	155	238.057388	133	135	169
159	12	25	248.099060	143	114	169
160	1	22	259.241913	144	124	163
161	2	18	271.825256	148	44	163
162	5	148	284.658600	149	0	172
163	1	2	298.502655	160	161	174
164	11	35	312.353485	147	141	167
165	3	6	327.842377	152	138	170
166	17	58	344.665100	156	157	173
167	7	11	362.301453	140	164	172
168	8	10	386.832703	155	154	170
169	12	13	417.857208	159	158	171
170	3	8	451.827179	165	168	175
171	12	19	495.957428	169	153	175
172	5	7	541.714233	162	167	173
173	5	17	599.255859	172	166	174
174	1	5	671.215698	163	173	176
175	3	12	760.348633	170	171	176
176	1	3	956.282471	174	175	0

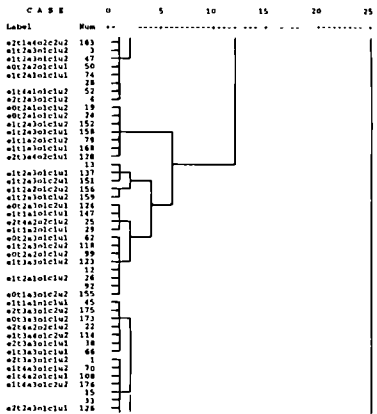
\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS\*\*\*\*\*

Dendrogram using Ward Method

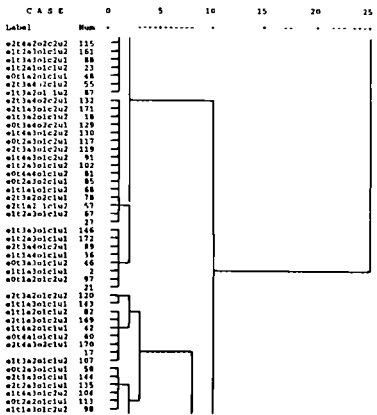
Rescaled Distance Cluster Combine



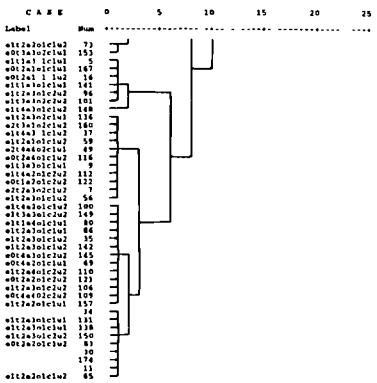
\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS\*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS\*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS\*\*\*\*\*



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CLU2\_3    Ward Method    Two Clusters of Question 16

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
'Important'	1	102	57.3	57.6	57.6
'Unimportant'	2	75	42.1	42.4	100.0
	.	1	.6	Missing	
	Total	178	100.0	100.0	

Valid cases    177    Missing cases    1

Cluster Analysis Questions 14-16 Combined

\*\*\*\*\* PROXIMITIES \*\*\*\*\*

>Warning # 14783  
>Due to missing data, some cases have been excluded from computations.

Data Information

151 unweighted cases accepted.  
27 cases rejected because of missing value.

Squared Euclidean measure used.

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
1	77	142	8.000000	0	0	18
2	66	175	17.500000	0	0	27
3	134	166	27.000000	0	0	11
4	119	130	36.500000	0	0	21
5	94	127	46.500000	0	0	13
6	97	144	57.000000	0	0	36
7	102	129	67.500000	0	0	23
8	28	71	78.500000	0	0	42
9	132	146	90.500000	0	0	17
10	7	161	103.000000	0	0	36
11	20	114	115.500000	0	3	22
12	70	85	129.000000	0	0	17
13	79	176	143.000000	5	0	40
14	17	169	157.000000	0	0	61
15	32	163	171.500000	0	0	47
16	18	78	186.000000	0	0	32
17	61	112	201.250000	12	9	28
18	67	138	216.583328	1	0	44
19	105	178	232.083328	0	0	66
20	9	112	247.583328	0	0	31
21	48	99	263.416656	0	4	81
22	19	103	279.416656	11	0	51
23	10	84	295.583313	0	7	56
24	49	93	312.083313	0	0	82
25	60	83	328.583313	0	0	43
26	110	145	345.583313	0	0	70
27	57	89	362.749969	2	0	67
28	61	107	379.999969	17	0	67
29	67	150	397.499969	0	0	63
30	30	120	414.999969	0	0	86
31	8	37	432.833313	20	0	62
32	2	17	450.999969	0	16	73
33	128	153	469.499969	0	0	86
34	61	91	487.999969	0	0	64
35	3	15	506.499969	0	0	70
36	6	81	525.500000	10	6	70
37	22	56	544.500000	0	0	102
38	13	14	563.500000	0	0	95
39	4	11	582.500000	0	0	65
40	79	154	602.500000	13	0	52
41	24	35	622.500000	0	0	79
42	26	108	642.833313	8	0	54
43	34	52	663.666626	0	25	88
44	67	106	685.083313	18	0	67
45	57	126	706.583313	0	0	55

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONV.)

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster Cluster 1	1st Appears Cluster 2	Next Stage
46	12	31	728.583313	0	0	59
47	30	173	750.750000	15	0	69
48	43	167	773.250000	0	0	89
49	1	115	795.750000	0	0	105
50	40	72	818.250000	0	0	90
51	19	73	841.049988	22	0	58
52	52	864	864.250000	0	40	85
53	80	140	887.750000	0	0	68
54	26	113	911.416687	42	0	92
55	49	64	935.250000	45	0	105
56	9	33	959.083313	23	0	73
57	157	160	983.083313	0	0	80
58	19	125	1007.283325	51	0	85
59	11	155	1031.949951	46	0	66
60	124	162	1056.949951	0	0	79
61	6	16	1081.949951	36	14	113
62	8	116	1107.116577	31	0	104
63	27	58	1132.283203	0	29	98
64	53	177	1157.783203	34	0	92
65	4	75	1183.449829	39	0	97
66	11	87	1209.283203	59	19	104
67	57	61	1235.866577	27	28	106
68	8	69	1263.033203	0	53	84
69	30	122	1290.616577	47	0	101
70	3	91	1318.366577	35	26	99
71	69	141	1346.366577	0	0	107
72	41	101	1374.366577	0	0	100
73	2	9	1402.628540	32	56	81
74	170	172	1431.128540	0	0	115
75	54	139	1460.128540	0	0	93
76	16	59	1489.128540	0	0	102
77	36	68	1519.128540	0	0	122
78	123	149	1549.628540	0	0	139
79	23	104	1580.128540	41	60	110
80	104	134	1611.461914	0	57	94
81	2	43	1643.099976	73	21	101
82	19	44	1675.266602	0	24	110
83	63	92	1707.766602	0	0	112
84	7	46	1741.349976	68	0	108
85	19	46	1775.150024	58	52	96
86	28	108	1809.150024	30	33	106
87	39	67	1843.200073	0	44	99
88	32	135	1878.616699	43	0	125
89	6	40	1914.783325	0	48	109

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
90	38	111	1951.616699	50	0	119
91	76	90	1989.116689	0	0	111
92	26	53	2026.688110	54	64	114
93	47	165	2065.021484	75	0	123
94	100	86	2103.938232	0	80	103
95	12	118	2142.938232	38	0	119
96	19	148	2182.104980	85	0	121
97	4	151	2222.438232	65	0	124
98	25	81	2263.271484	63	0	113
99	3	37	2304.110352	70	87	125
100	39	47	2345.443604	72	0	130
101	2	30	2387.579346	81	69	129
102	15	21	2431.079346	76	37	126
103	96	82	2475.629395	0	94	127
104	8	11	2521.351563	62	66	136
105	1	49	2567.518311	49	55	108
106	28	57	2614.601563	86	67	138
107	29	60	2661.934814	0	71	111
108	1	7	2709.462646	105	84	138
109	5	82	2757.045898	89	0	117
110	18	23	2806.021973	82	79	114
111	27	66	2856.388672	107	91	120
112	55	158	2908.555420	83	0	133
113	6	25	2961.255371	61	98	129
114	18	26	3015.826904	110	92	131
115	23	145	3071.326904	0	74	126
116	58	62	3128.326904	0	0	133
117	5	21	3185.677002	109	0	146
118	152	159	3243.177002	0	0	134
119	12	38	3302.343750	95	90	123
120	27	143	3362.643799	111	0	134
121	19	114	3423.323242	96	0	136
122	34	147	3486.656494	77	0	142
123	12	47	3551.045410	119	93	139
124	4	50	3618.445313	97	0	131
125	3	32	3686.652588	99	88	137
126	15	22	3756.009766	102	115	132
127	80	121	3825.543213	103	0	143
128	25	133	3896.043213	0	0	141
129	2	6	3966.599121	101	113	130
130	2	39	4045.538818	129	100	140
131	4	18	4125.273926	124	114	135
132	15	38	4208.541992	126	0	147
133	50	55	4292.475098	116	112	141

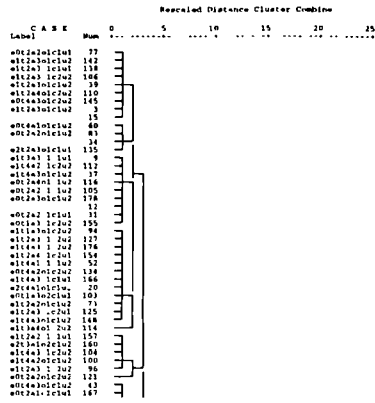
\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

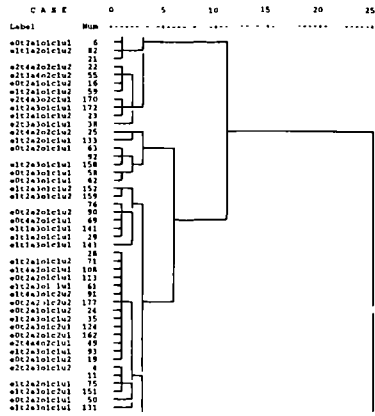
Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
134	27	130	4376.475098	120	118	145
135	4	131	4465.003906	131	0	144
136	8	19	4557.435547	104	121	137
137	3	8	4656.289551	125	136	143
138	1	28	4755.987793	108	106	140
139	12	103	4858.901855	123	78	144
140	1	2	4971.402344	138	130	142
141	24	50	5090.730957	128	133	148
142	1	34	5212.860840	140	122	150
143	3	80	5341.376465	137	127	146
144	4	12	5471.177246	135	139	145
145	4	27	5612.610840	144	134	148
146	3	5	5757.483887	143	117	147
147	3	15	5908.448242	146	132	149
148	4	24	6175.264160	145	141	149
149	3	4	6714.507813	147	148	150
150	1	3	7996.343750	142	149	0

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

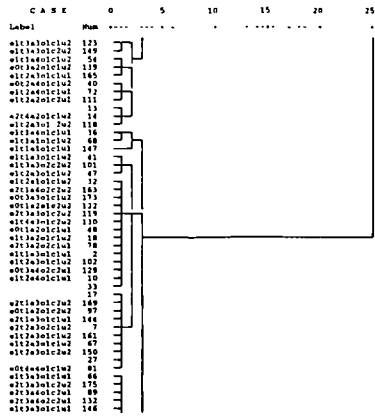
Dendrogram using Ward Method



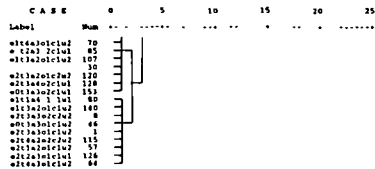
\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



CLU2\_4 Ward Method Two Clusters of Questions 14-16 Combined

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
'Important'	1	51	28.7	33.8	33.8
'Unimportant'	2	100	56.2	66.2	100.0
.	.	27	15.2	Missing	
Total		178	100.0	100.0	
Valid cases	151	Missing cases	27		



Variations in Cluster Membership - Question 14

RECODEQ1 Company Age by CLU2\_1 Ward Method

Col Pct		CLU2_1		Page 1 of 1
		c1	c2	Row Total
RECODEQ1				
0-12 months	1	14.7	22.0	26
13-18 months	2	18.6	38.0	38
19-24 months	3	51.0	34.0	69
Over 25 months	4	15.7	6.0	19
				12.5
Column Total		102	50	152
		67.1	32.9	100.0

Chi-Square	Value	DF	Significance
Pearson	10.73008	3	.01328
Likelihood Ratio	10.83565	3	.01265
Mantel-Haenszel test for linear association	7.55026	1	.00600

Minimum Expected Frequency - 6.250

Number of Missing Observations: 26

RECOQ2 Company Type by CLU2\_1 Ward Method

Col Pct		CLU2_1		Page 1 of 1
		c1	c2	Row Total
RECOQ2				
Retail	1	17.6	8.0	22
Services	2	37.3	68.0	72
Manu/Trans/Const	3	27.5	4.0	30
Others(inc.tour)	4	17.6	20.0	28
				18.4
Column Total		102	50	152
		67.1	32.9	100.0

Chi-Square	Value	DF	Significance
Pearson	18.30300	3	.00038
Likelihood Ratio	20.91577	3	.00011
Mantel-Haenszel test for linear association	.30599	1	.58015

Minimum Expected Frequency - 7.237

Q5A COMPANY LOCATION by CLU2\_1 Ward Method

Col Pct		CLU2_1		Page 1 of 1
		c1	c2	Row Total
Q5A				
Devon	1	67.6	88.0	113
Cornwall	2	32.4	12.0	39
				25.7
Column Total		102	50	152
		67.1	32.9	100.0

Chi-Square	Value	DF	Significance
Pearson	7.28660	1	.00695
Continuity Correction	6.25865	1	.01236
Likelihood Ratio	8.00147	1	.00467
Mantel-Haenszel test for linear association	7.23866	1	.00713

Minimum Expected Frequency - 12.829

Number of Missing Observations: 26

-----  
 Q5B URBAN/RURAL by CLU2\_1 Ward Method

Page 1 of 1

Col Pct	CLU2_1		Row Total
	c1	c2	
1	33.3	52.1	59
Urban			39.3
2	66.7	47.9	91
Rural			60.7
Column Total	102	48	150
	68.0	32.0	100.0

Chi-Square	Value	DF	Significance
Pearson	4.80886	1	.02831
Continuity Correction	4.05519	1	.04404
Likelihood Ratio	4.75708	1	.02918
Mantel-Haenszel test for linear association	4.77680	1	.02885

Minimum Expected Frequency - 18.880

Number of Missing Observations: 28

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 RECOQ8 Start-Up Reasons by CLU2\_1 Ward Method

Page 1 of 1

Col Pct	CLU2_1		Row Total
	c1	c2	
1	38.2	36.0	57
No Alternative Employment			37.5
2	7.8	10.0	13
Unhappy with Previous Emp.			8.6
3	28.4	46.0	52
Need For Independ			34.2
4	19.6		20
Market Opportunity			13.2
5	5.9	8.0	10
Other			6.6
Column Total	102	50	152
	67.1	32.9	100.0

Chi-Square	Value	DF	Significance
Pearson	13.28705	4	.00996
Likelihood Ratio	19.28934	4	.00069
Mantel-Haenszel test for linear association	.34394	1	.55756

Minimum Expected Frequency - 3.289  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 26

-----  
 Q12A BUSINESS PLANNING by CLU2\_1 Ward Method

Page 1 of 1

Col Pct	CLU2_1		Row Total
	c1	c2	
Q12A			
yes	1	71.3 52.0	98 64.9
no	2	28.7 48.0	53 35.1
Column Total	101 66.9	50 33.1	151 100.0

Chi-Square	Value	DF	Significance
Pearson	5.46137	1	.01944
Continuity Correction	4.64750	1	.03110
Likelihood Ratio	5.36798	1	.02051
Mantel-Haenszel test for linear association	5.42520	1	.01985

Minimum Expected Frequency - 17.550

Number of Missing Observations: 27

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Variations in Cluster Membership - Question 15

RECOQ3C Now Employees by CLU2\_2 Ward Method

Page 1 of 1

Col Pct	CLU2_2		Row Total
	c1	c2	
RECOQ3C			
0	0	23.0 44.4	48 28.7
1	1	54.9 51.1	90 53.9
2 or more	2	22.1 4.4	29 17.4
Column Total	122 73.1	45 26.9	167 100.0

Chi-Square	Value	DF	Significance
Pearson	11.29425	2	.00353
Likelihood Ratio	12.56705	2	.00187
Mantel-Haenszel test for linear association	11.19376	1	.00082

Minimum Expected Frequency - 7.814

Number of Missing Observations: 11

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RECOQ4A Company Ownership by CLU2\_2 Ward Method

Page 1 of 1

Col Pct	CLU2_2		Row Total
	c1	c2	
RECOQ4A			
Sole Trader	1	83.8 95.8	155 87.1
Other (Partnership + Ltd.)	2	16.2 4.2	23 12.9
Column Total	130 73.0	48 27.0	178 100.0

Chi-Square	Value	DF	Significance
Pearson	4.47692	1	.03436
Continuity Correction	3.47494	1	.06231
Likelihood Ratio	5.41755	1	.01994
Mantel-Haenszel test for linear association	4.45177	1	.03487

Minimum Expected Frequency - 6.202

Number of Missing Observations: 0

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 Q5A COMPANY LOCATION by CLU2\_2 Ward Method

Page 1 of 1

Col Pct	CLU2_2		Row Total
	c1	c2	
Q5A			
Devon	1	70.8 85.4	133 74.7
Cornwall	2	29.2 14.6	45 25.3
Column Total	130	48	178
	73.0	27.0	100.0

Chi-Square	Value	DF	Significance
Pearson	3.98166	1	.04600
Continuity Correction	3.24399	1	.07169
Likelihood Ratio	4.30950	1	.03790
Mantel-Haenszel test for linear association	3.95929	1	.04661

Minimum Expected Frequency - 12.135

Number of Missing Observations: 0

-----  
 Q5B URBAN/RURAL by CLU2\_2 Ward Method

Page 1 of 1

Col Pct	CLU2_2		Row Total
	c1	c2	
Q5B			
Urban	1	35.4 53.3	70 40.0
Rural	2	64.6 46.7	105 60.0
Column Total	130	45	175
	74.3	25.7	100.0

Chi-Square	Value	DF	Significance
Pearson	4.48718	1	.03415
Continuity Correction	3.77048	1	.05216
Likelihood Ratio	4.42426	1	.03543
Mantel-Haenszel test for linear association	4.46154	1	.03467

Minimum Expected Frequency - 18.000

Number of Missing Observations: 3

-----  
 Q6 FIRST BUSINESS? by CLU2\_2 Ward Method

Page 1 of 1

Col Pct	CLU2_2		Row Total
	c1	c2	
Q6			
yes	1	73.1 87.5	137 77.0
no	2	26.9 12.5	41 23.0
Column Total	130	48	178
	73.0	27.0	100.0

Chi-Square	Value	DF	Significance
Pearson	4.11354	1	.04254
Continuity Correction	3.34020	1	.06761
Likelihood Ratio	4.50934	1	.03371
Mantel-Haenszel test for linear association	4.09043	1	.04313

Minimum Expected Frequency - 11.056

Number of Missing Observations: 0

-----  
 DEPTH4 d4 by CLU2\_2 Ward Method

Page 1 of 1

Col Pct		CLU2_2		Row Total
		c1	c2	
DEPTH4	1	32.3	39.6	61
No Planning				34.3
	2	43.8	56.3	84
Some Planning				47.2
	3	23.8	4.2	33
Strategic Planning				18.5
Column Total		130	48	178
		73.0	27.0	100.0

Chi-Square	Value	DF	Significance
Pearson	9.00758	2	.01107
Likelihood Ratio	11.26312	2	.00358
Mantel-Haenszel test for linear association	5.03193	1	.02488
Minimum Expected Frequency -	8.899		

Number of Missing Observations: 0

-----  
 GROW2 employment growth by CLU2\_2 Ward Method

Page 1 of 1

Col Pct		CLU2_2		Row Total
		c1	c2	
GROW2	1	20.5	4.4	27
increased				16.2
	2	79.5	95.6	140
static/decreased				83.8
Column Total		122	45	167
		73.1	26.9	100.0

Chi-Square	Value	DF	Significance
Pearson	6.24603	1	.01245
Continuity Correction	5.11816	1	.02368
Likelihood Ratio	7.66763	1	.00562
Mantel-Haenszel test for linear association	6.20863	1	.01271
Minimum Expected Frequency -	7.275		

Number of Missing Observations: 11

-----  
Variations in Cluster Membership - Question 16

Q10 SEX by CLU2\_3 Ward Method

Page 1 of 1

Col Pct		CLU2_3		Row Total
		c1	c2	
Q10	1	62.7	80.0	124
Male				70.1
	2	37.3	20.0	53
Female				29.9
Column Total		102	75	177
		57.6	42.4	100.0

Chi-Square	Value	DF	Significance
Pearson	6.13426	1	.01326
Continuity Correction	5.33929	1	.02085
Likelihood Ratio	6.31500	1	.01197
Mantel-Haenszel test for linear association	6.09960	1	.01352
Minimum Expected Frequency -	22.458		

Number of Missing Observations: 1

-----  
 RECOQ2 Company Type by CLU2\_3 Ward Method

Page 1 of 1

RECOQ2	Col Pct	CLU2_3		Row Total
		c1	c2	
Retail	1	17.6	14.7	29 16.4
Services	2	37.3	61.3	84 47.5
Manu/Trans/Const	3	24.5	10.7	33 18.6
Others(inc.tour)	4	20.6	13.3	31 17.5
Column Total		102	75	177
		57.6	42.4	100.0

Chi-Square	Value	DF	Significance
Pearson	11.25563	3	.01042
Likelihood Ratio	11.51738	3	.00923
Mantel-Haenszel test for linear association	3.03426	1	.08152

Minimum Expected Frequency - 12.288

Number of Missing Observations: 1

-----  
 DEPTH4 d4 by CLU2\_3 Ward Method

Page 1 of 1

DEPTH4	Col Pct	CLU2_3		Row Total
		c1	c2	
No Planning	1	29.4	41.3	61 34.5
Some Planning	2	46.1	48.0	83 46.9
Strategic Planning	3	24.5	10.7	33 18.6
Column Total		102	75	177
		57.6	42.4	100.0

Chi-Square	Value	DF	Significance
Pearson	6.25879	2	.04374
Likelihood Ratio	6.53683	2	.03807
Mantel-Haenszel test for linear association	5.63749	1	.01758

Minimum Expected Frequency - 13.983

Number of Missing Observations: 1

-----  
 GROW2 employment growth by CLU2\_3 Ward Method

Page 1 of 1

GROW2	Col Pct	CLU2_3		Row Total
		c1	c2	
increased	1	21.3	9.7	27 16.3
static/decreased	2	78.7	90.3	139 83.7
Column Total		94	72	166
		56.6	43.4	100.0

Chi-Square	Value	DF	Significance
Pearson	3.99653	1	.04559
Continuity Correction	3.19318	1	.07395
Likelihood Ratio	4.18567	1	.04077
Mantel-Haenszel test for linear association	3.97245	1	.04625

Minimum Expected Frequency - 11.711

Number of Missing Observations: 12

RECO2Q19 Growth Ambitions3 by CLU2\_3 Ward Method

Page 1 of 1

Col Pct	CLU2_3		Row Total
	c1	c2	
RECO2Q19			
No Growth	1	13.7	17.3
			27
Low Growth 1-50%	2	41.2	61.3
			88
High Growth 51%+	3	45.1	21.3
			62
Column Total		102	75
		57.6	42.4
			100.0

Chi-Square	Value	DF	Significance
Pearson	10.86926	2	.00436
Likelihood Ratio	11.22759	2	.00365
Mantel-Haenszel test for linear association	6.94382	1	.00841

Minimum Expected Frequency - 11.441

Number of Missing Observations: 1

Variations in Cluster Membership - Questions 14-16 Combined

DEPTH4 d4 by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
DEPTH4			
No Planning	1	17.6	45.0
			54
Some Planning	2	52.9	43.0
			70
Strategic Planning	3	29.4	12.0
			27
Column Total		51	100
		33.8	66.2
			100.0

Chi-Square	Value	DF	Significance
Pearson	13.51274	2	.00116
Likelihood Ratio	14.03079	2	.00090
Mantel-Haenszel test for linear association	13.32783	1	.00026

Minimum Expected Frequency - 9.119

Number of Missing Observations: 27

GROW2 employment growth by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
GROW2			
increased	1	34.0	9.7
			25
static/decreased	2	66.0	90.3
			115
Column Total		47	93
		33.6	66.4
			100.0

Chi-Square	Value	DF	Significance
Pearson	12.63597	1	.00038
Continuity Correction	11.02949	1	.00090
Likelihood Ratio	11.96163	1	.00054
Mantel-Haenszel test for linear association	12.54571	1	.00040

Minimum Expected Frequency - 8.393

Number of Missing Observations: 38

-----  
 RECO2Q19 Growth Ambitions3 by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
RECO2Q19			
No Growth	1	5.9	23
		20.0	15.2
Low Growth 1-50%	2	39.2	75
		55.0	49.7
High Growth 51%+	3	54.9	53
		25.0	35.1
Column Total	51	100	151
	33.8	66.2	100.0

Chi-Square	Value	DF	Significance
Pearson	14.71749	2	.00064
Likelihood Ratio	15.03551	2	.00054
Mantel-Haenszel test for linear association	14.01627	1	.00018
Minimum Expected Frequency -	7.768		

Number of Missing Observations: 27

-----  
 RECOQ2 Company Type by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
RECOQ2			
Retail	1	23.5	22
		10.0	14.6
Services	2	27.5	72
		58.0	47.7
Manu/Trans/Const	3	39.2	29
		9.0	19.2
Others (inc. tour)	4	9.8	28
		23.0	18.5
Column Total	51	100	151
	33.8	66.2	100.0

Chi-Square	Value	DF	Significance
Pearson	30.08155	3	.00000
Likelihood Ratio	29.68676	3	.00000
Mantel-Haenszel test for linear association	.34909	1	.55463
Minimum Expected Frequency -	7.430		

Number of Missing Observations: 27

-----  
 RECOQ3C Now Employees by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
RECOQ3C			
0	0	19.1	41
		34.4	29.3
1	1	44.7	71
		53.8	50.7
2 or more	2	36.2	28
		11.8	20.0
Column Total	47	93	140
	33.6	66.4	100.0

Chi-Square	Value	DF	Significance
Pearson	12.24040	2	.00220
Likelihood Ratio	11.77793	2	.00277
Mantel-Haenszel test for linear association	10.03959	1	.00153
Minimum Expected Frequency -	9.400		

Number of Missing Observations: 38



-----  
 Q12A BUSINESS PLANNING by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
Q12A			
yes	1	82.4	97
		55.6	64.7
no	2	17.6	53
		44.4	35.3
Column Total	51	99	150
	34.0	66.0	100.0

Chi-Square	Value	DF	Significance
Pearson	10.57874	1	.00114
Continuity Correction	9.43844	1	.00212
Likelihood Ratio	11.29540	1	.00078
Mantel-Haenszel test for linear association	10.50821	1	.00119

Minimum Expected Frequency - 18.020

Number of Missing Observations: 28

-----  
 Q17 FINANCIAL OBJECTIVES by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
Q17			
To Achieve Large Profit	1	15.7	18
		10.0	11.9
To Achieve Medium Profit	2	54.9	70
		42.0	46.4
To Achieve Small Profit	3	13.7	42
		35.0	27.8
To Get By	4	15.7	21
		13.0	13.9
Column Total	51	100	151
	33.8	66.2	100.0

Chi-Square	Value	DF	Significance
Pearson	7.80007	3	.05033
Likelihood Ratio	8.42867	3	.03794
Mantel-Haenszel test for linear association	2.05044	1	.15216

Minimum Expected Frequency - 6.079

Number of Missing Observations: 27

-----  
 RECOQ4A Company Ownership by CLU2\_4 Ward Method

Page 1 of 1

Col Pct	CLU2_4		Row Total
	c1	c2	
RECOQ4A			
Sole Trader	1	78.4	131
		91.0	86.8
Other (Partnership + Ltd.)	2	21.6	20
		9.0	13.2
Column Total	51	100	151
	33.8	66.2	100.0

Chi-Square	Value	DF	Significance
Pearson	4.64324	1	.03118
Continuity Correction	3.61385	1	.05730
Likelihood Ratio	4.39779	1	.03599
Mantel-Haenszel test for linear association	4.61249	1	.03174

Minimum Expected Frequency - 6.755

Number of Missing Observations: 27

**APPENDIX 2 - (g) Variations in Discriminant Classification Success**

Variations in Discriminant Classification Success - Two Clusters of Question 14

CLASS21 clu2-1 mis/class. disc. by Q5B URBAN/RURAL

Page 1 of 1

		Q5B		Row Total
Row Pct	Col Pct	Urban	Rural	
		1	2	
CLASS21				
correct	1 class	29.4 50.0	70.6 80.0	119 68.0
incorrect	2 class	62.5 50.0	37.5 20.0	56 32.0
	Column Total	70 40.0	105 60.0	175 100.0

Chi-Square	Value	DF	Significance
Pearson	17.37132	1	.00003
Continuity Correction	16.02000	1	.00006
Likelihood Ratio	17.27920	1	.00003
Mantel-Haenszel test for linear association	17.27206	1	.00003

Minimum Expected Frequency - 22.400

Number of Missing Observations: 3

CLASS21 clu2-1 mis/class. disc. by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		Row Total
Row Pct	Col Pct	yes	no	
		1	2	
CLASS21				
correct	1 class	70.6 61.8	29.4 89.7	119 68.0
incorrect	2 class	92.9 38.2	7.1 10.3	56 32.0
	Column Total	136 77.7	39 22.3	175 100.0

Chi-Square	Value	DF	Significance
Pearson	10.90354	1	.00096
Continuity Correction	9.65565	1	.00189
Likelihood Ratio	12.67566	1	.00037
Mantel-Haenszel test for linear association	10.84123	1	.00099

Minimum Expected Frequency - 12.480

Number of Missing Observations: 3

CLASS21 clu2-1 mis/class. disc. by DEPTH4 d4

Page 1 of 1

		DEPTH4			Row Total
Row Pct	Col Pct	No Plann ing	Some Pla nning	Strategi c Planni	
		1	2	3	
CLASS21					
correct	1 class	32.8 66.1	43.7 62.7	23.5 84.8	119 68.0
incorrect	2 class	35.7 33.9	55.4 37.3	8.9 15.2	56 32.0
	Column Total	59 33.7	83 47.4	33 18.9	175 100.0

Chi-Square	Value	DF	Significance
Pearson	5.49426	2	.06411
Likelihood Ratio	6.07934	2	.04785
Mantel-Haenszel test for linear association	2.31338	1	.12826

Minimum Expected Frequency - 10.560

Number of Missing Observations: 3

Variations in Discriminant Classification Success - Two Clusters of Question 15

CLASS22 clu2-2 mis/class. disc. by Q5A COMPANY LOCATION

Page 1 of 1

		Q5A		Row Total
Row Pct Col Pct		Devon	Cornwall	
		1	2	
CLASS22				
	1			
correct	class	57.1 38.9	42.9 84.6	77 50.7
	2			
incorrect	class	92.0 61.1	8.0 15.4	75 49.3
	Column Total	113 74.3	39 25.7	152 100.0

Chi-Square	Value	DF	Significance
Pearson	24.20116	1	.00000
Continuity Correction	22.40824	1	.00000
Likelihood Ratio	26.12897	1	.00000
Mantel-Haenszel test for linear association	24.04194	1	.00000

Minimum Expected Frequency - 19.243

Number of Missing Observations: 26

CLASS22 clu2-2 mis/class. disc. by RECOQ20C Now Non-DC Trade

Page 1 of 1

		RECOQ20C				Row Total
Row Pct Col Pct		0%	1-20%	20-60%	60%+	
		1	2	3	4	
CLASS22						
	1					
correct	class	55.4 58.6	17.6 38.2	10.8 72.7	16.2 42.9	74 51.7
	2					
incorrect	class	42.0 41.4	30.4 61.8	4.3 27.3	23.2 57.1	69 48.3
	Column Total	70 49.0	34 23.8	11 7.7	28 19.6	143 100.0

Chi-Square	Value	DF	Significance
Pearson	6.61692	3	.08516
Likelihood Ratio	6.72427	3	.08123
Mantel-Haenszel test for linear association	1.14329	1	.28496

Minimum Expected Frequency - 5.308

Number of Missing Observations: 35

Variations in Discriminant Classification Success - Two Clusters of Question 16

CLASS23 clu2-3 mis/class. disc. by Q11 OM AGE

Page 1 of 1

		Q11					
Row Pct	Col Pct	Under 25	25-34	35-44	45-54	55-64	Row Total
		1	2	3	4	5	
CLASS23							
correct	1 class	7.0 50.0	33.0 69.1	28.7 75.0	26.1 68.2	5.2 33.3	115 65.0
incorrect	2 class	12.9 50.0	27.4 30.9	17.7 25.0	22.6 31.8	19.4 66.7	62 35.0
	Column Total	16 9.0	55 31.1	44 24.9	44 24.9	18 10.2	177 100.0

Chi-Square	Value	DF	Significance
Pearson	12.04640	4	.01701
Likelihood Ratio	11.61315	4	.02047
Mantel-Haenszel test for linear association	1.03367	1	.30930

Minimum Expected Frequency - 5.605

Number of Missing Observations: 1

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Variations in Discriminant Classification Success - Questions 14-16 Combined

CLASS24 mis/class q14-16 by RECO2Q19 Growth Ambitions3

RECO2Q19 Page 1 of 1

Row Pct Col Pct	No Growth h	Low Growth (1-50 2)	High Growth (51% 3)	Row Total
CLASS24				
1	17.0	55.0	28.0	100
correctly class	73.9	73.3	52.8	66.2
2	11.8	39.2	49.0	51
incorrectly class	26.1	26.7	47.2	33.8
Column Total	23 15.2	75 49.7	53 35.1	151 100.0

Chi-Square	Value	DF	Significance
Pearson	6.55345	2	.03775
Likelihood Ratio	6.44492	2	.03986
Mantel-Haenszel test for linear association	4.98610	1	.02555

Minimum Expected Frequency - 7.768

Number of Missing Observations: 27

CLASS24 mis/class q14-16 by Q5A COMPANY LOCATION

Q5A Page 1 of 1

Row Pct Col Pct	Devon 1	Cornwall 2	Row Total
CLASS24			
1	70.0	30.0	100
correctly class	61.9	78.9	66.2
2	84.3	15.7	51
incorrectly class	38.1	21.1	33.8
Column Total	113 74.8	38 25.2	151 100.0

Chi-Square	Value	DF	Significance
Pearson	3.67443	1	.05525
Continuity Correction	2.95368	1	.08568
Likelihood Ratio	3.88752	1	.04865
Mantel-Haenszel test for linear association	3.65010	1	.05607

Minimum Expected Frequency - 12.834

Number of Missing Observations: 27

CLASS24 mis/class q14-16 by RECOQ3A Start-Up Employees

RECOQ3A Page 1 of 1

Row Pct Col Pct	0	1	2 Or more e	Row Total
CLASS24				
1	40.0	53.0	7.0	100
correctly class	71.4	67.9	41.2	66.2
2	31.4	49.0	19.6	51
incorrectly class	28.6	32.1	58.8	33.8
Column Total	56 37.1	78 51.7	17 11.3	151 100.0

Chi-Square	Value	DF	Significance
Pearson	5.55019	2	.06234
Likelihood Ratio	5.24541	2	.07261
Mantel-Haenszel test for linear association	3.63047	1	.05673

Minimum Expected Frequency - 5.742

Number of Missing Observations: 27

## **APPENDIX 3**

**APPENDIX 3 - (a) Frequency Tables: All Questions**

Q1 Company Age

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0-12 months	1	10	5.5	5.5	5.5
13-18 months	2	43	23.5	23.8	29.3
19-24 months	3	50	27.3	27.6	56.9
25-30 months	4	51	27.9	28.2	85.1
31-36 months	5	27	14.8	14.9	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

Q2 COMPANY TYPE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Retail Services	1	24	13.1	13.2	13.2
Professional Service	2	78	42.6	42.9	56.0
Tourism	3	5	2.7	2.7	58.8
Agriculture/Fishing/	4	5	2.7	2.7	61.5
Transport	5	7	3.8	3.8	65.4
Construction	6	9	4.9	4.9	70.3
Manufacturing	7	13	7.1	7.1	77.5
Other	8	41	22.4	22.5	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

Q3A START-UP EMPLOYEES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	109	59.6	59.9	59.9
	1	58	31.7	31.9	91.8
	2	11	6.0	6.0	97.8
	3	3	1.6	1.6	99.5
	4	1	.5	.5	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

Q3B NOW EMPLOYEES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	89	48.6	48.9	48.9
	1	1	.5	.5	49.5
	1	62	33.9	34.1	83.5
	2	2	1.1	1.1	84.6
	2	17	9.3	9.3	94.0
	3	3	1.6	1.6	95.6
	4	3	1.6	1.6	97.3
	5	4	2.2	2.2	99.5
	7	1	.5	.5	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

Q4 Company Ownership

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Sole Trader	1	154	84.2	84.6	84.6
Partnership	2	25	13.7	13.7	98.4
Other	3	3	1.6	1.6	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

-----  
 Q5A COMPANY LOCATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Devon	1	141	77.0	77.5	77.5
Cornwall	2	41	22.4	22.5	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

-----  
 Q5B URBAN/RURAL

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Urban	1	53	29.0	29.9	29.9
Rural	2	124	67.8	70.1	100.0
.	.	6	3.3	Missing	
Total		183	100.0	100.0	

Valid cases 177 Missing cases 6

-----  
 Q6 FIRST BUSINESS?

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
yes	1	138	75.4	75.8	75.8
no	2	44	24.0	24.2	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

-----  
 Q7 PREVIOUS OCCUPATION

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Self Employed	1	15	8.2	8.2	8.2
Employee in Same Ind	2	46	25.1	25.1	33.3
Employee not in Same	3	53	29.0	29.0	62.3
Unemployed	4	52	28.4	28.4	90.7
Full Time Education	5	6	3.3	3.3	94.0
Voluntary Work	6	1	.5	.5	94.5
Other	7	10	5.5	5.5	100.0
Total		183	100.0	100.0	

Valid cases 183 Missing cases 0

-----  
 Q8 START-UP REASONS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Alternative Emplo	1	66	36.1	36.1	36.1
Unhappy with Previou	2	13	7.1	7.1	43.2
Need for Independenc	3	64	35.0	35.0	78.1
Identification of Ma	4	18	9.8	9.8	88.0
Other	5	22	12.0	12.0	100.0
Total		183	100.0	100.0	

Valid cases 183 Missing cases 0

-----  
 Q9A NONE (qualifications)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	23	12.6	100.0	100.0
.	.	160	87.4	Missing	
Total		183	100.0	100.0	

Valid cases 23 Missing cases 160



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Q9B      O LEVELS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	116	63.4	100.0	100.0
	.	67	36.6	Missing	
	Total	183	100.0	100.0	

Valid cases    116      Missing cases    67

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Q9C      A LEVELS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	48	26.2	100.0	100.0
	.	135	73.8	Missing	
	Total	183	100.0	100.0	

Valid cases    48      Missing cases    135

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Q9D      DEGREE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	30	16.4	100.0	100.0
	.	153	83.6	Missing	
	Total	183	100.0	100.0	

Valid cases    30      Missing cases    153

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Q9E      BTEC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	10	5.5	100.0	100.0
	.	173	94.5	Missing	
	Total	183	100.0	100.0	

Valid cases    10      Missing cases    173

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Q9F      HNC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	14	7.7	100.0	100.0
	.	169	92.3	Missing	
	Total	183	100.0	100.0	

Valid cases    14      Missing cases    169

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Q9G      HND

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	6	3.3	100.0	100.0
	.	177	96.7	Missing	
	Total	183	100.0	100.0	

Valid cases    6      Missing cases    177

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Q9H      NVQ

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	9	4.9	100.0	100.0
	.	174	95.1	Missing	
	Total	183	100.0	100.0	

Valid cases      9      Missing cases      174

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Q9I      PROFESSIONAL Qualification

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	64	35.0	100.0	100.0
	.	119	65.0	Missing	
	Total	183	100.0	100.0	

Valid cases      64      Missing cases      119

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Q9J      MBA

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	1	.5	100.0	100.0
	.	182	99.5	Missing	
	Total	183	100.0	100.0	

Valid cases      1      Missing cases      182

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Q9K      OTHER

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	36	19.7	100.0	100.0
	.	147	80.3	Missing	
	Total	183	100.0	100.0	

Valid cases      36      Missing cases      147

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Q10      SEX

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Male	1	129	70.5	71.3	71.3
Female	2	52	28.4	28.7	100.0
	.	2	1.1	Missing	
	Total	183	100.0	100.0	

Valid cases      181      Missing cases      2

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Q11      OM AGE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Under 25	1	10	5.5	5.5	5.5
25-34	2	46	25.1	25.3	30.8
35-44	3	44	24.0	24.2	54.9
45-54	4	56	30.6	30.8	85.7
55-64	5	26	14.2	14.3	100.0
	.	1	.5	Missing	
	Total	183	100.0	100.0	

Valid cases      182      Missing cases      1

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Q12      FINANCIAL OBJECTIVES

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
To Achieve Large Pro	1	18	9.8	9.8	9.8
To Achieve Medium Pr	2	73	39.9	39.9	49.7
To Achieve Small Pro	3	42	23.0	23.0	72.7
To Get By	4	50	27.3	27.3	100.0

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Total 183 100.0 100.0  
 Valid cases 183 Missing cases 0

Q13 PROFIT PERFORMANCE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Satisfactory	1	30	16.4	16.4	16.4
Satisfactory	2	95	51.9	51.9	68.3
Neither Satisfactory	3	31	16.9	16.9	85.2
Unsatisfactory	4	16	8.7	8.7	94.0
Very Unsatisfactory	5	11	6.0	6.0	100.0
Total		183	100.0	100.0	

Valid cases 183 Missing cases 0

Q14 GROWTH AMBITIONS

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Growth	1	76	41.5	41.5	41.5
1-25% Growth	2	55	30.1	30.1	71.6
26-50% Growth	3	27	14.8	14.8	86.3
51-100% Growth	4	11	6.0	6.0	92.3
101-200% Growth	5	8	4.4	4.4	96.7
Over 200% Growth	6	6	3.3	3.3	100.0
Total		183	100.0	100.0	

Valid cases 183 Missing cases 0

Q15 NOW NON D&C TRADE

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
0%	1	97	53.0	53.0	53.0
1-20%	2	40	21.9	21.9	74.9
21-40%	3	8	4.4	4.4	79.2
41-60%	4	8	4.4	4.4	83.6
60% +	5	30	16.4	16.4	100.0
Total		183	100.0	100.0	

Valid cases 183 Missing cases 0

Q16A Doing Market Research

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	23	12.6	12.7	12.7
Adequately Addressed	2	115	62.8	63.5	76.2
Neither	3	28	15.3	15.5	91.7
Inadequately Addressed	4	11	6.0	6.1	97.8
Very Inadequately Addressed	5	4	2.2	2.2	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

Q16AA Finding the Best Location

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	9	4.9	5.0	5.0
Adequately Addressed	2	43	23.5	23.9	28.9
Neither	3	88	48.1	48.9	77.8
Inadequately Addressed	4	28	15.3	15.6	93.3
Very Inadequately Addressed	5	12	6.6	6.7	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AB Retrieving Debts from Customers

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	6	3.3	3.3	3.3
Adequately Addressed	2	60	32.8	33.3	36.7
Neither	3	70	38.3	38.9	75.6
Inadequately Addressed	4	25	13.7	13.9	89.4
Very Inadequately Addressed	5	19	10.4	10.6	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AC Setting Prices

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	12	6.6	6.7	6.7
Adequately Addressed	2	77	42.1	42.8	49.4
Neither	3	63	34.4	35.0	84.4
Inadequately Addressed	4	14	7.7	7.8	92.2
Very Inadequately Addressed	5	14	7.7	7.8	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AD Achieving Quality Standards

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	19	10.4	10.6	10.6
Adequately Addressed	2	51	27.9	28.3	38.9
Neither	3	82	44.8	45.6	84.4
Inadequately Addressed	4	15	8.2	8.3	92.8
Very Inadequately Addressed	5	13	7.1	7.2	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AE Understanding Government Regulations

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	16	8.7	8.9	8.9
Adequately Addressed	2	49	26.8	27.2	36.1
Neither	3	69	37.7	38.3	74.4
Inadequately Addressed	4	29	15.8	16.1	90.6
Very Inadequately Addressed	5	17	9.3	9.4	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AF Understanding Sector Specific Problems

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	14	7.7	7.8	7.8
Adequately Addressed	2	50	27.3	27.8	35.6
Neither	3	67	36.6	37.2	72.8
Inadequately Addressed	4	33	18.0	18.3	91.1
Very Inadequately Addressed	5	16	8.7	8.9	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AG Coping With Pressure

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	10	5.5	5.6	5.6
Adequately Addressed	2	43	23.5	23.9	29.4
Neither	3	78	42.6	43.3	72.8
Inadequately Addressed	4	32	17.5	17.8	90.6
Very Inadequately Addressed	5	17	9.3	9.4	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AH Creating a Business Culture

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	4	2.2	2.2	2.2
Adequately Addressed	2	39	21.3	21.7	23.9
Neither	3	88	48.1	48.9	72.8
Inadequately Addressed	4	31	16.9	17.2	90.0
Very Inadequately Addressed	5	18	9.8	10.0	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16AI Maintaining Your Motivation

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	16	8.7	8.9	8.9
Adequately Addressed	2	63	34.4	35.0	43.9
Neither	3	58	31.7	32.2	76.1
Inadequately Addressed	4	24	13.1	13.3	89.4
Very Inadequately Addressed	5	19	10.4	10.6	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16B Marketing Products/Services

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	12	6.6	6.6	6.6
Adequately Addressed	2	96	52.5	53.0	59.7
Neither	3	50	27.3	27.6	87.3
Inadequately Addressed	4	18	9.8	9.9	97.2
Very Inadequately Addressed	5	5	2.7	2.8	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16C Developing New Products/Services

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	6	3.3	3.3	3.3
Adequately Addressed	2	56	30.6	30.9	34.3
Neither	3	88	48.1	48.6	82.9
Inadequately Addressed	4	23	12.6	12.7	95.6
Very Inadequately Addressed	5	8	4.4	4.4	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16D Developing New Methods of Production

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	5	2.7	2.8	2.8
Adequately Addressed	2	36	19.7	19.9	22.7
Neither	3	109	59.6	60.2	82.9
Inadequately Addressed	4	22	12.0	12.2	95.0
Very Inadequately Addressed	5	9	4.9	5.0	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16E Market Diversification

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	11	6.0	6.1	6.1
Adequately Addressed	2	57	31.1	31.5	37.6
Neither	3	85	46.4	47.0	84.5
Inadequately Addressed	4	21	11.5	11.6	96.1
Very Inadequately Addressed	5	7	3.8	3.9	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16F Managing Stock

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	10	5.5	5.5	5.5
Adequately Addressed	2	55	30.1	30.4	35.9
Neither	3	87	47.5	48.1	84.0
Inadequately Addressed	4	21	11.5	11.6	95.6
Very Inadequately Addressed	5	8	4.4	4.4	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16G Purchasing

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	14	7.7	7.7	7.7
Adequately Addressed	2	49	26.8	27.1	34.8
Neither	3	91	49.7	50.3	85.1
Inadequately Addressed	4	18	9.8	9.9	95.0
Very Inadequately Addressed	5	9	4.9	5.0	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16H Long Term Planning

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	16	8.7	8.8	8.8
Adequately Addressed	2	89	48.6	49.2	58.0
Neither	3	51	27.9	28.2	86.2
Inadequately Addressed	4	18	9.8	9.9	96.1
Very Inadequately Addressed	5	7	3.8	3.9	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16I Understanding Your Market

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	31	16.9	17.1	17.1
Adequately Addressed	2	97	53.0	53.6	70.7
Neither	3	37	20.2	20.4	91.2
Inadequately Addressed	4	10	5.5	5.5	96.7
Very Inadequately Addressed	5	6	3.3	3.3	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16J Managing Staff

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	5	2.7	2.8	2.8
Adequately Addressed	2	41	22.4	22.7	25.4
Neither	3	98	53.6	54.1	79.6
Inadequately Addressed	4	26	14.2	14.4	93.9
Very Inadequately Addressed	5	11	6.0	6.1	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16K Communicating With Customers

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	30	16.4	16.6	16.6
Adequately Addressed	2	87	47.5	48.1	64.6
Neither	3	39	21.3	21.5	86.2
Inadequately Addressed	4	20	10.9	11.0	97.2
Very Inadequately Addressed	5	5	2.7	2.8	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16L Borrowing Money

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	16	8.7	8.8	8.8
Adequately Addressed	2	66	36.1	36.5	45.3
Neither	3	63	34.4	34.8	80.1
Inadequately Addressed	4	23	12.6	12.7	92.8
Very Inadequately Addressed	5	13	7.1	7.2	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16M Generating Funds Internally

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	7	3.8	3.9	3.9
Adequately Addressed	2	39	21.3	21.5	25.4
Neither	3	88	48.1	48.6	74.0
Inadequately Addressed	4	32	17.5	17.7	91.7
Very Inadequately Addressed	5	15	8.2	8.3	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16N Achieving Adequate Cash Flow

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	21	11.5	11.6	11.6
Adequately Addressed	2	93	50.8	51.4	63.0
Neither	3	42	23.0	23.2	86.2
Inadequately Addressed	4	15	8.2	8.3	94.5
Very Inadequately Addressed	5	10	5.5	5.5	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16O Keeping Financial Records

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	59	32.2	32.6	32.6
Adequately Addressed	2	94	51.4	51.9	84.5
Neither	3	20	10.9	11.0	95.6
Inadequately Addressed	4	4	2.2	2.2	97.8
Very Inadequately Addressed	5	4	2.2	2.2	100.0
.	.	2	1.1	Missing	
Total		183	100.0	100.0	

Valid cases 181 Missing cases 2

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 Q16P Doing Accounts & Managing Finance

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	53	29.0	29.4	29.4
Adequately Addressed	2	91	49.7	50.6	80.0
Neither	3	26	14.2	14.4	94.4
Inadequately Addressed	4	5	2.7	2.8	97.2
Very Inadequately Addressed	5	5	2.7	2.8	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16Q Managing Costs

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	29	15.8	16.1	16.1
Adequately Addressed	2	91	49.7	50.6	66.7
Neither	3	46	25.1	25.6	92.2
Inadequately Addressed	4	10	5.5	5.6	97.8
Very Inadequately Addressed	5	4	2.2	2.2	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16R Expanding Productive Capacity

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	4	2.2	2.2	2.2
Adequately Addressed	2	38	20.8	21.1	23.3
Neither	3	109	59.6	60.6	83.9
Inadequately Addressed	4	20	10.9	11.1	95.0
Very Inadequately Addressed	5	9	4.9	5.0	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3



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 Q16S Developing Staff Skills

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	7	3.8	3.9	3.9
Adequately Addressed	2	43	23.5	23.9	27.8
Neither	3	95	51.9	52.8	80.6
Inadequately Addressed	4	25	13.7	13.9	94.4
Very Inadequately Addressed	5	10	5.5	5.6	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16T Getting Access to Networks

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	3	1.6	1.7	1.7
Adequately Addressed	2	53	29.0	29.4	31.1
Neither	3	79	43.2	43.9	75.0
Inadequately Addressed	4	34	18.6	18.9	93.9
Very Inadequately Addressed	5	11	6.0	6.1	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16U Getting Business Advice

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	29	15.8	16.1	16.1
Adequately Addressed	2	93	50.8	51.7	67.8
Neither	3	40	21.9	22.2	90.0
Inadequately Addressed	4	15	8.2	8.3	98.3
Very Inadequately Addressed	5	3	1.6	1.7	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16V Getting Access to Know-How

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	14	7.7	7.8	7.8
Adequately Addressed	2	43	23.5	23.9	31.7
Neither	3	87	47.5	48.3	80.0
Inadequately Addressed	4	26	14.2	14.4	94.4
Very Inadequately Addressed	5	10	5.5	5.6	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16W Acquiring New Technology

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	3	1.6	1.7	1.7
Adequately Addressed	2	33	18.0	18.3	20.0
Neither	3	102	55.7	56.7	76.7
Inadequately Addressed	4	32	17.5	17.8	94.4
Very Inadequately Addressed	5	10	5.5	5.6	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16X Acquiring Labour

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	2	1.1	1.1	1.1
Adequately Addressed	2	39	21.3	21.7	22.8
Neither	3	96	52.5	53.3	76.1
Inadequately Addressed	4	31	16.9	17.2	93.3
Very Inadequately Addressed	5	12	6.6	6.7	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16Y Acquiring Materials

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	6	3.3	3.3	3.3
Adequately Addressed	2	47	25.7	26.1	29.4
Neither	3	85	46.4	47.2	76.7
Inadequately Addressed	4	30	16.4	16.7	93.3
Very Inadequately Addressed	5	12	6.6	6.7	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q16Z Finding Suitable Premises

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Adequately Addressed	1	5	2.7	2.8	2.8
Adequately Addressed	2	43	23.5	23.9	26.7
Neither	3	91	49.7	50.6	77.2
Inadequately Addressed	4	29	15.8	16.1	93.3
Very Inadequately Addressed	5	12	6.6	6.7	100.0
.	.	3	1.6	Missing	
Total		183	100.0	100.0	

Valid cases 180 Missing cases 3

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 Q17 Start-Up Provider

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
North Devon College	1	43	23.5	23.6	23.6
ACT	2	27	14.8	14.8	38.5
WCET	3	19	10.4	10.4	48.9
Enterprise Plymouth	4	28	15.3	15.4	64.3
Ultra Training	5	5	2.7	2.7	67.0
CC Training	6	50	27.3	27.5	94.5
Don't Know	7	10	5.5	5.5	100.0
.	.	1	.5	Missing	
Total		183	100.0	100.0	

Valid cases 182 Missing cases 1

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 Q18A Business Advisory Service

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	108	59.0	100.0	100.0
.	.	75	41.0	Missing	
Total		183	100.0	100.0	

Valid cases 108 Missing cases 75

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 Q18B Investors In People

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	14	7.7	100.0	100.0
.	.	169	92.3	Missing	
Total		183	100.0	100.0	

Valid cases 14 Missing cases 169

-----

Q18C DCTEC Development Fund

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	52	28.4	100.0	100.0
	.	131	71.6	Missing	
	Total	183	100.0	100.0	

Valid cases 52 Missing cases 131

-----

Q18D Workforce

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	16	8.7	100.0	100.0
	.	167	91.3	Missing	
	Total	183	100.0	100.0	

Valid cases 16 Missing cases 167

-----

Q18E Workstart

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	38	20.8	100.0	100.0
	.	145	79.2	Missing	
	Total	183	100.0	100.0	

Valid cases 38 Missing cases 145

-----

Q18F Management Extension Programme

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	7	3.8	100.0	100.0
	.	176	96.2	Missing	
	Total	183	100.0	100.0	

Valid cases 7 Missing cases 176

-----

Q18G Business Development Consultancy

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	19	10.4	100.0	100.0
	.	164	89.6	Missing	
	Total	183	100.0	100.0	

Valid cases 19 Missing cases 164

-----

Q18H DCTEC Information Point

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	35	19.1	100.0	100.0
	.	148	80.9	Missing	
	Total	183	100.0	100.0	

Valid cases 35 Missing cases 148

-----

Q18I TAPs

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	15	8.2	100.0	100.0
	.	168	91.8	Missing	
	Total	183	100.0	100.0	

Valid cases 15 Missing cases 168

-----

Q18J Business Angels

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	14	7.7	100.0	100.0
	.	169	92.3	Missing	
	Total	183	100.0	100.0	

Valid cases 14 Missing cases 169

-----

Q18K Business Relocation Scheme

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	8	4.4	100.0	100.0
	.	175	95.6	Missing	
	Total	183	100.0	100.0	

Valid cases 8 Missing cases 175

-----

Q18L Second Step

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	17	9.3	100.0	100.0
	.	166	90.7	Missing	
	Total	183	100.0	100.0	

Valid cases 17 Missing cases 166

-----

Q18M Assessor Training

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	5	2.7	100.0	100.0
	.	178	97.3	Missing	
	Total	183	100.0	100.0	

Valid cases 5 Missing cases 178

-----

Q18N Business Focus Programme

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	2	1.1	100.0	100.0
	.	181	98.9	Missing	
	Total	183	100.0	100.0	

Valid cases 2 Missing cases 181

-----

Q18O Business Link

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	22	12.0	100.0	100.0
	.	161	88.0	Missing	
	Total	183	100.0	100.0	

Valid cases 22 Missing cases 161

-----

Q18P Graduate Gateway

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	4	2.2	100.0	100.0
	.	179	97.8	Missing	
	Total	183	100.0	100.0	

Valid cases 4 Missing cases 179

-----  
 Q18Q Employer Visits Scheme

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	5	2.7	100.0	100.0
	.	178	97.3	Missing	
	Total	183	100.0	100.0	

Valid cases 5 Missing cases 178

-----  
 Q18R None (awareness)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	40	21.9	100.0	100.0
	.	143	78.1	Missing	
	Total	183	100.0	100.0	

Valid cases 40 Missing cases 143

-----  
 Q19A Use of Support

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Yes	1	18	9.8	9.8	9.8
No	2	165	90.2	90.2	100.0
	Total	183	100.0	100.0	

Valid cases 183 Missing cases 0

-----  
 Q19B Service Used

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
BAS	1	8	4.4	53.3	53.3
Workforce	4	1	.5	6.7	60.0
Workstart	5	1	.5	6.7	66.7
Relocation	11	1	.5	6.7	73.3
Second Step	12	1	.5	6.7	80.0
Business Focus	14	1	.5	6.7	86.7
Visits	17	2	1.1	13.3	100.0
	.	168	91.8	Missing	
	Total	183	100.0	100.0	

Valid cases 15 Missing cases 168

-----  
 Q20A Why Used Support?

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Particular Operational Prob	1	3	1.6	17.6	17.6
To Aid Growth	2	7	3.8	41.2	58.8
For Training Support	3	3	1.6	17.6	76.5
Other	4	4	2.2	23.5	100.0
	.	166	90.7	Missing	
	Total	183	100.0	100.0	

Valid cases 17 Missing cases 166

-----  
 Q20B Support Usefulness

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Very Useful	1	5	2.7	27.8	27.8
Useful	2	8	4.4	44.4	72.2
Neither	3	1	.5	5.6	77.8
Not Useful	4	1	.5	5.6	83.3
Not At All Useful	5	3	1.6	16.7	100.0
	.	165	90.2	Missing	
	Total	183	100.0	100.0	

Valid cases 18 Missing cases 165

-----  
 Q21 Why Support Not Used?

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Used Other Sources	1	18	9.8	10.9	10.9
Poor Opinion of Support	2	8	4.4	4.8	15.8
No Problems/Need	3	43	23.5	26.1	41.8
Start-Up Support Sufficient	4	19	10.4	11.5	53.3
Not Aware Of Support	5	18	9.8	10.9	64.2
Cost Of Support	6	1	.5	.6	64.8
Not Enough Time	7	9	4.9	5.5	70.3
No Desire To Grow	8	1	.5	.6	70.9
Other	9	48	26.2	29.1	100.0
.	.	18	9.8	Missing	
<b>Total</b>		<b>183</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases 165 Missing cases 18

-----  
 Q22A Bank

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	79	43.2	100.0	100.0
.	.	104	56.8	Missing	
<b>Total</b>		<b>183</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases 79 Missing cases 104

-----  
 Q22B RDC

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	2	1.1	100.0	100.0
.	.	181	98.9	Missing	
<b>Total</b>		<b>183</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases 2 Missing cases 181

-----  
 Q22C Friends/Networks

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	100	54.6	100.0	100.0
.	.	83	45.4	Missing	
<b>Total</b>		<b>183</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases 100 Missing cases 83

-----  
 Q22D Accountant

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	74	40.4	100.0	100.0
.	.	109	59.6	Missing	
<b>Total</b>		<b>183</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases 74 Missing cases 109

-----  
 Q22E Princes Trust

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	6	3.3	100.0	100.0
.	.	177	96.7	Missing	
<b>Total</b>		<b>183</b>	<b>100.0</b>	<b>100.0</b>	

Valid cases 6 Missing cases 177

-----  
 Q22F DTI Consultancy Initiative

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	1	.5	100.0	100.0
	.	182	99.5	Missing	
	Total	183	100.0	100.0	

Valid cases 1 Missing cases 182

-----  
 Q22G Other

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	20	10.9	100.0	100.0
	.	163	89.1	Missing	
	Total	183	100.0	100.0	

Valid cases 20 Missing cases 163

-----  
 Q22H None (use of other support)

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	29	15.8	100.0	100.0
	.	154	84.2	Missing	
	Total	183	100.0	100.0	

Valid cases 29 Missing cases 154

-----  
 GROW actual growth

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
increased	1	36	19.7	19.8	19.8
static	2	143	78.1	78.6	98.4
decreased	3	3	1.6	1.6	100.0
	.	1	.5	Missing	
	Total	183	100.0	100.0	

Valid cases 182 Missing cases 1

-----  
 GROW2 employment growth

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
increased	1.00	36	19.7	19.8	19.8
decreased/static	2.00	146	79.8	80.2	100.0
	.	1	.5	Missing	
	Total	183	100.0	100.0	

Valid cases 182 Missing cases 1

### APPENDIX 3 - (b) Variations in Adequacy of Start-Up Support

Q16AE Understanding Government Regulations by Q6 FIRST BUSINESS?

Page 1 of 1

Row Pct Col Pct	Q6		Row Total
	yes	no	
	1	2	
Q16AE			
1 Very Adequately	68.8 8.1	31.3 11.6	16 8.9
2 Adequately	70.8 25.0	29.2 32.6	48 26.8
3 Neither	81.2 41.2	18.8 30.2	69 38.5
4 Inadequately	93.1 19.9	6.9 4.7	29 16.2
5 Very Inadequately	47.1 5.9	52.9 20.9	17 9.5
Column Total	136 76.0	43 24.0	179 100.0

Chi-Square	Value	DF	Significance
Pearson	14.61863	4	.00556
Likelihood Ratio	14.71269	4	.00534
Mantel-Haenszel test for linear association	.00018	1	.98916

Minimum Expected Frequency - 3.844  
Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 4

Q16E Market Diversification by Q6 FIRST BUSINESS?

Page 1 of 1

Row Pct Col Pct	Q6		Row Total
	yes	no	
	1	2	
Q16E			
1 Very Adequately	81.8 6.6	18.2 4.7	11 6.1
2 Adequately	78.6 32.1	21.4 27.9	56 31.1
3 Neither	78.8 48.9	21.2 41.9	85 47.2
4 Inadequately	71.4 10.9	28.6 14.0	21 11.7
5 Very Inadequately	28.6 1.5	71.4 11.6	7 3.9
Column Total	137 76.1	43 23.9	180 100.0

Chi-Square	Value	DF	Significance
Pearson	9.68162	4	.04615
Likelihood Ratio	8.03086	4	.09045
Mantel-Haenszel test for linear association	4.16008	1	.04139

Minimum Expected Frequency - 1.672  
Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3



-----  
 Q16F Managing Stock by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		
		yes	no	
Row Pct	Col Pct	1	2	Row Total
Q16F				
	1	40.0	60.0	10
Very Adequately		2.9	14.0	5.6
	2	79.6	20.4	54
Adequately		31.4	25.6	30.0
	3	77.0	23.0	87
Neither		48.9	46.5	48.3
	4	95.2	4.8	21
Inadequately		14.6	2.3	11.7
	5	37.5	62.5	8
Very Inadequately		2.2	11.6	4.4
Column		137	43	180
Total		76.1	23.9	100.0

Chi-Square	Value	DF	Significance
Pearson	18.36333	4	.00105
Likelihood Ratio	17.43730	4	.00159
Mantel-Haenszel test for linear association	.39208	1	.53121

Minimum Expected Frequency - 1.911  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

-----  
 Q16L Borrowing Money by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		
		yes	no	
Row Pct	Col Pct	1	2	Row Total
Q16L				
	1	93.8	6.3	16
Very Adequately		10.9	2.3	8.9
	2	78.5	21.5	65
Adequately		37.2	32.6	36.1
	3	76.2	23.8	63
Neither		35.0	34.9	35.0
	4	78.3	21.7	23
Inadequately		13.1	11.6	12.8
	5	38.5	61.5	13
Very Inadequately		3.6	18.6	7.2
Column		137	43	180
Total		76.1	23.9	100.0

Chi-Square	Value	DF	Significance
Pearson	13.12898	4	.01066
Likelihood Ratio	12.14824	4	.01628
Mantel-Haenszel test for linear association	7.75640	1	.00535

Minimum Expected Frequency - 3.106  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

-----  
 Q16M Generating Funds Internally by Q6 FIRST BUSINESS?

Page 1 of 1

		Q6		Row Total
		yes	no	
Row Pct	Col Pct	1	2	
Q16M				
Very Adequately	1	85.7 4.4	14.3 2.3	7 3.9
Adequately	2	73.7 20.4	26.3 23.3	38 21.1
Neither	3	78.4 50.4	21.6 44.2	88 48.9
Inadequately	4	84.4 19.7	15.6 11.6	32 17.8
Very Inadequately	5	46.7 5.1	53.3 18.6	15 8.3
Column Total		137 76.1	43 23.9	180 100.0

Chi-Square	Value	DF	Significance
Pearson	9.08808	4	.05894
Likelihood Ratio	8.10233	4	.08790
Mantel-Haenszel test for linear association	1.51830	1	.21788

Minimum Expected Frequency - 1.672  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

-----  
 Q16M Generating Funds Internally by RECOQ9D degree

Page 1 of 1

		RECOQ9D		Row Total
		Yes 1.00	No 2.00	
Row Pct	Col Pct			
Q16M				
Very Adequately	1	14.3 3.4	85.7 3.9	7 3.9
Adequately	2	12.8 17.2	87.2 22.4	39 21.5
Neither	3	11.4 34.5	88.6 51.3	88 48.6
Inadequately	4	37.5 41.4	62.5 13.2	32 17.7
Very Inadequately	5	6.7 3.4	93.3 9.2	15 8.3
Column Total		29 16.0	152 84.0	181 100.0

Chi-Square	Value	DF	Significance
Pearson	13.67894	4	.00839
Likelihood Ratio	11.67960	4	.01990
Mantel-Haenszel test for linear association	1.44004	1	.23013

Minimum Expected Frequency - 1.122  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2

----- / -----  
 Q16M Generating Funds Internally by RECOQ9K other qualification

RECOQ9K Page 1 of 1

Q16M	Row Pct Col Pct	RECOQ9K		Row Total
		Yes 1.00	No 2.00	
Very Adequately	1	71.4	28.6	7
		14.3	1.4	3.9
Adequately	2	17.9	82.1	39
		20.0	21.9	21.5
Neither	3	18.2	81.8	88
		45.7	49.3	48.6
Inadequately	4	15.6	84.4	32
		14.3	18.5	17.7
Very Inadequately	5	13.3	86.7	15
		5.7	8.9	8.3
Column		35	146	181
Total		19.3	80.7	100.0

Chi-Square	Value	DF	Significance
Pearson	12.93060	4	.01162
Likelihood Ratio	9.71840	4	.04545
Mantel-Haenszel test for linear association	3.81509	1	.05079
Minimum Expected Frequency - 1.354			
Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)			

Number of Missing Observations: 2

----- / -----  
 Q16N Achieving Adequate Cash Flow by RECOQ9B clevels

RECOQ9B Page 1 of 1

Q16N	Row Pct Col Pct	RECOQ9B		Row Total
		1.00	2.00	
Very Adequately	1	66.7	33.3	21
		12.3	10.4	11.6
Adequately	2	64.5	35.5	93
		52.6	49.3	51.4
Neither	3	52.4	47.6	42
		19.3	29.9	23.2
Inadequately	4	93.3	6.7	15
		12.3	1.5	8.3
Very Inadequately	5	40.0	60.0	10
		3.5	9.0	5.5
Column		114	67	181
Total		63.0	37.0	100.0

Chi-Square	Value	DF	Significance
Pearson	10.43300	4	.03373
Likelihood Ratio	11.93039	4	.01788
Mantel-Haenszel test for linear association	.21960	1	.63934
Minimum Expected Frequency - 3.702			
Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)			

Number of Missing Observations: 2

-----  
 Q16K Communicating With Customers by RECOQ9I professional qualification

Page 1 of 1

		RECOQ9I		Row Total
		1.00	2.00	
Row Pct	Col Pct			
Q16K				
1	Very Adequately	30.0	70.0	30
		14.5	17.6	16.6
2	Adequately	28.7	71.3	87
		40.3	52.1	48.1
3	Neither	51.3	48.7	39
		32.3	16.0	21.5
4	Inadequately	40.0	60.0	20
		12.9	10.1	11.0
5	Very Inadequately		100.0	5
			4.2	2.8
Column Total		62	119	181
		34.3	65.7	100.0

Chi-Square	Value	DF	Significance
Pearson	9.33697	4	.05321
Likelihood Ratio	10.68815	4	.03030
Mantel-Haenszel test for linear association	.66428	1	.41505

Minimum Expected Frequency - 1.713  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2

Q16AG Coping With Pressure by RECOQ9K other qualification

Page 1 of 1

		RECOQ9K		Row Total
		1.00	2.00	
Row Pct	Col Pct			
Q16AG				
1	Very Adequately	50.0	50.0	10
		14.7	3.4	5.6
2	Adequately	27.9	72.1	43
		35.3	21.2	23.9
3	Neither	11.5	88.5	78
		26.5	47.3	43.3
4	Inadequately	15.6	84.4	32
		14.7	18.5	17.8
5	Very Inadequately	17.6	82.4	17
		8.8	9.6	9.4
Column Total		34	146	180
		18.9	81.1	100.0

Chi-Square	Value	DF	Significance
Pearson	11.59023	4	.02067
Likelihood Ratio	10.30629	4	.03557
Mantel-Haenszel test for linear association	4.74655	1	.02936

Minimum Expected Frequency - 1.889  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

# APPENDIX 3 - (c) Cluster Analysis

## Cluster Analysis Question 16

\*\*\*\*\* PROXIMITIES \*\*\*\*\*

>Warning # 14783  
>Due to missing data, some cases have been excluded from computations.

### Data Information

180 unweighted cases accepted.  
3 cases rejected because of missing value.

Squared Euclidean measure used.

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

### Agglomeration Schedule using Ward Method

Stage	Clusters Cluster 1	Combined Cluster 2	Coefficient	Stage Cluster 1	1st Appears Cluster 2	Next Stage
1	126	176	.000000	0	0	2
2	20	124	.000000	0	1	4
3	47	88	.000000	0	0	4
4	20	47	.000000	0	3	6
5	22	31	.000000	0	0	6
6	20	22	.000000	4	5	11
7	127	135	1.000000	0	0	10
8	90	91	2.000000	0	0	21
9	21	67	3.500000	0	0	23
10	96	125	5.166667	0	7	120
11	20	178	6.916667	6	0	23
12	130	172	9.416666	0	0	18
13	25	102	11.916666	0	0	19
14	44	162	14.916666	0	0	20
15	55	103	17.916666	0	0	22
16	56	160	21.416666	0	0	25
17	109	149	24.916666	0	0	46
18	124	128	28.416666	0	12	28
19	25	38	31.916666	13	0	52
20	44	98	35.583332	14	0	37
21	80	89	39.250000	0	8	31
22	2	54	42.916668	0	15	59
23	20	21	47.366669	11	9	34
24	131	174	51.866668	0	0	39
25	55	159	56.366669	16	0	31
26	116	158	61.366669	0	0	69
27	82	125	66.366669	0	0	130
28	14	122	71.616669	0	18	51
29	3	164	77.116669	0	0	111
30	24	104	82.616669	0	0	64
31	55	79	88.283333	25	21	52
32	11	156	94.283333	0	0	98
33	99	152	100.283333	0	0	58
34	20	122	106.401512	23	0	95
35	142	166	112.901512	0	0	91
36	79	147	119.401512	0	0	38
37	44	114	125.984848	20	0	51
38	78	134	132.818176	36	0	87
39	70	129	139.651505	0	24	70
40	77	182	146.651505	0	0	82
41	143	167	153.651505	0	0	76
42	71	155	160.651505	0	0	76
43	51	150	167.651505	0	0	82
44	64	74	174.651505	0	0	98
45	34	35	181.651505	0	0	145
46	108	112	188.818176	17	0	79
47	108	157	196.318176	0	0	84
48	29	154	203.818176	0	0	70
49	5	106	211.318176	0	0	93
50	41	93	219.318176	0	0	65
51	14	44	227.318176	28	37	114
52	25	55	235.651505	19	31	68
53	128	173	244.151505	0	0	66
54	115	146	252.651505	0	0	119
55	49	85	261.151489	0	0	118
56	57	61	269.651489	0	0	75
57	7	45	278.151489	0	0	105
58	98	133	286.818146	33	0	106
59	2	120	295.651489	22	0	114
60	58	175	304.651489	0	0	126
61	113	132	313.651489	0	0	82
62	9	101	322.651489	0	0	71
63	46	89	331.651489	0	0	78
64	6	24	340.818146	0	30	75
65	6	66	350.151489	50	0	99
66	41	170	359.651489	53	0	87
67	126	137	369.151489	0	0	122
68	110	72	378.684814	52	0	111
69	25	115	388.351471	0	26	100
70	4	69	398.318146	48	39	79
71	29	65	408.651489	62	0	135
72	9	151	419.151489	0	0	74
73	16	60	429.651489	0	0	88
74	17	68	440.484833	72	0	117
75	16	56	451.318176	64	56	123
76	6	141	462.318176	42	41	129
77	70	75	473.318176	0	0	124
78	36	62	484.318176	63	0	136
79	46	198	495.601501	70	46	109
80	29	183	507.101501	0	0	93
81	37	177	518.601501	0	0	90
82	28	112	530.101501	40	61	121
83	76	78	541.601501	0	0	130
84	39	107	553.434814	0	47	99
85	30	148	565.434814	0	0	107

\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
86	73	84	577.434814	0	0	115
87	78	126	589.601501	38	66	129
88	17	33	601.768188	73	0	143
89	32	168	614.268188	0	0	138
90	28	50	626.768188	81	35	149
91	59	140	639.601501	0	35	109
92	51	97	652.601501	43	0	149
93	5	37	665.601501	49	80	122
94	12	26	678.601501	0	0	125
95	20	163	691.783325	34	0	139
96	161	179	705.283325	0	0	104
97	19	144	718.783325	0	0	124
98	11	63	732.283325	32	44	127
99	30	41	745.783325	84	65	119
100	4	86	759.616638	69	0	128
101	107	138	774.116638	0	0	115
102	10	83	788.616638	0	0	155
103	8	100	803.616638	0	0	110
104	1	159	818.783325	0	96	148
105	7	27	834.283325	57	0	133
106	98	139	849.866638	58	0	138
107	91	153	865.866638	85	0	154
108	53	54	881.866638	0	0	152
109	29	58	898.146673	79	91	142
110	8	48	914.480286	103	0	146
111	3	25	930.863647	29	68	123
112	76	140	947.363647	0	0	153
113	40	69	963.863647	0	0	137
114	2	14	980.363647	59	51	127
115	72	106	997.113647	86	101	132
116	105	123	1014.113647	0	0	151
117	13	16	1031.530273	0	74	139
118	43	49	1049.030273	0	55	125
119	30	114	1066.613647	99	54	134
120	63	95	1084.447021	0	10	135
121	76	171	1103.347046	82	0	131
122	5	109	1122.347046	93	67	136
123	3	36	1141.557861	111	75	154
124	19	6	1161.307861	97	77	167
125	12	43	1181.107910	94	118	133
126	57	118	1201.441284	60	0	141
127	2	11	1221.816284	114	98	151
128	4	129	1242.516235	100	0	141
129	70	78	1264.716187	76	87	150
130	39	81	1286.965187	83	27	148
131	76	119	1309.982910	121	0	158
132	72	87	1331.982910	115	0	167
133	7	12	1355.057861	105	125	144
134	30	95	1378.585693	119	0	142
135	9	62	1402.466675	71	120	160
136	5	46	1427.077759	122	78	143
137	40	42	1451.911133	113	0	150
138	32	98	1476.827759	89	106	156
139	13	20	1501.890259	117	95	157
140	141	165	1527.890259	0	0	157
141	4	57	1553.981934	128	126	161
142	29	30	1580.490479	109	134	153
143	7	17	1607.629395	136	88	156
144	7	15	1634.865479	133	0	159
145	34	136	1662.532104	45	0	174
146	8	169	1691.698730	110	0	165
147	23	145	1721.198730	0	0	163
148	1	39	1751.496338	104	130	176
149	26	51	1781.996338	90	92	169
150	40	70	1813.193726	137	129	164
151	2	104	1845.040894	127	116	166
152	52	111	1877.040894	108	0	159
153	29	75	1909.436401	142	112	158
154	3	91	1942.542236	123	107	160
155	10	81	1976.042236	102	0	168
156	5	32	2012.736694	143	138	163
157	13	139	2050.535400	139	140	164
158	29	76	2088.394775	153	131	161
159	7	52	2127.616943	144	152	172
160	3	9	2166.910156	154	135	171
161	4	29	2206.963623	141	158	166
162	94	117	2248.463623	0	0	168
163	5	23	2291.185791	156	147	173
164	13	40	2334.956787	157	150	169
165	8	18	2378.856689	146	0	170
166	2	4	2425.236328	151	161	177
167	19	72	2473.875244	124	132	172
168	10	93	2523.575195	155	162	171
169	13	28	2577.137939	164	149	174

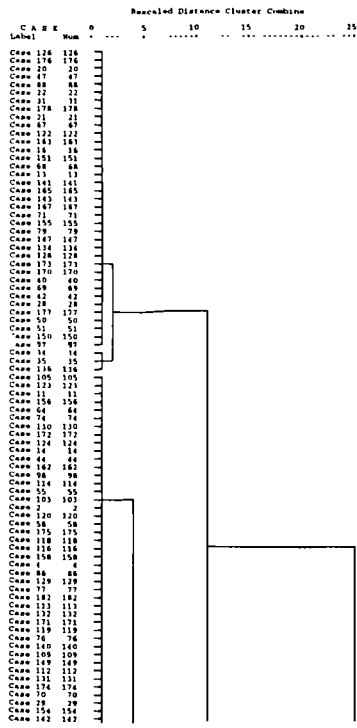
\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

Agglomeration Schedule using Ward Method (CONT.)

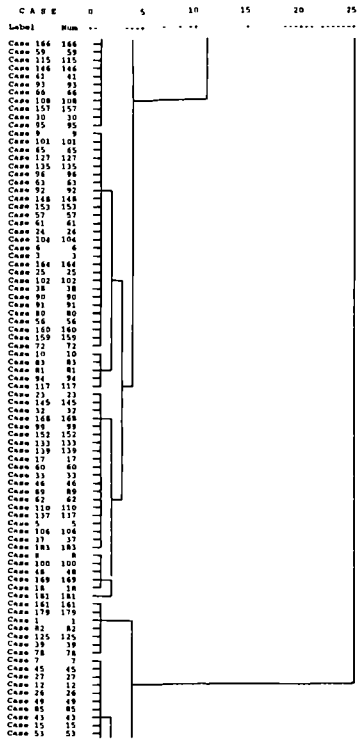
Stage	Clusters Combined		Coefficient	Stage Cluster 1st Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
170	8	181	2633.071289	165	0	173
171	3	10	2691.963867	160	168	175
172	7	19	2750.932129	159	167	176
173	5	8	2822.252686	163	170	175
174	13	34	2895.110352	169	145	178
175	3	5	3005.180664	171	173	177
176	1	7	3216.525879	148	172	179
177	2	3	3431.119828	166	175	178
178	2	13	4001.664551	177	174	179
179	1	2	5361.666992	176	178	0

\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*

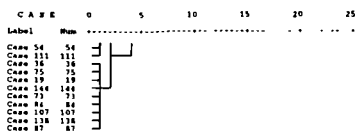
Dendrogram using Ward Method



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



\*\*\*\*\* HIERARCHICAL CLUSTER ANALYSIS \*\*\*\*\*



\*\*\*\*\* H I E R A R C H I C A L C L U S T E R A N A L Y S I S \*\*\*\*\*

CLU2\_1 Ward Method Two Clusters of Question 16

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
'Inadequate'	1	28	15.3	15.6	15.6
'Adequate/Neither'	2	152	83.1	84.4	100.0
.	.	3	1.6	Missing	
	Total	183	100.0	100.0	

Valid cases 180 Missing cases 3

-----

CLU3\_1 Ward Method Three Clusters of Question 16

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
'Inadequate'	1	28	15.3	15.6	15.6
'Neither'	2	112	61.2	62.2	77.8
'Adequate'	3	40	21.9	22.2	100.0
.	.	3	1.6	Missing	
	Total	183	100.0	100.0	

Valid cases 180 Missing cases 3

-----



Variations in Cluster Membership - Question 16

Q5B URBAN/RURAL by CLU2\_1 Ward Method q16 2 cluster solution

Page 1 of 1

		CLU2_1		Row Total
		1	2	
Q5B				
	1	25.0	75.0	52
Urban		46.4	26.7	29.9
	2	12.3	87.7	122
Rural		53.6	73.3	70.1
	Column Total	28	146	174
		16.1	83.9	100.0

Chi-Square	Value	DF	Significance
Pearson	4.35858	1	.03682
Continuity Correction	3.46843	1	.06255
Likelihood Ratio	4.09754	1	.04295
Mantel-Haenszel test for linear association	4.33353	1	.03737

Minimum Expected Frequency - 8.368

Number of Missing Observations: 9

Q5B URBAN/RURAL by CLU3\_1 Ward Method q16 3 cluster solution

Page 1 of 1

		CLU3_1			Row Total
		1	2	3	
Q5B					
	1	25.0	50.0	25.0	52
Urban		46.4	23.9	35.1	29.9
	2	12.3	68.0	19.7	122
Rural		53.6	76.1	64.9	70.1
	Column Total	28	109	37	174
		16.1	62.6	21.3	100.0

Chi-Square	Value	DF	Significance
Pearson	6.03652	2	.04889
Likelihood Ratio	5.82956	2	.05422
Mantel-Haenszel test for linear association	.53190	1	.46581

Minimum Expected Frequency - 8.368

Number of Missing Observations: 9

### APPENDIX 3 - (d) Variations in Discriminant Classification Success

CLASS220 stepwise 2 cluster mis/classification by RECOQ1 Company Age 2

Page 1 of 1

Col Pct	RECOQ1				Row Total
	0-12 mths	13-18 mths	19-24 mths	over 24 months	
1.00 correct class.	37.5	72.5	78.7	62.3	117 68.0
2.00 incorrect class.	62.5	27.5	21.3	37.7	55 32.0
Column Total	8 4.7	40 23.3	47 27.3	77 44.8	172 100.0

Chi-Square	Value	DF	Significance
Pearson	7.41337	3	.05983
Likelihood Ratio	7.28241	3	.06342
Mantel-Haenszel test for linear association	.05153	1	.82042

Minimum Expected Frequency - 2.558  
Cells with Expected Frequency < 5 - 1 OF 8 ( 12.5%)

Number of Missing Observations: 11

CLASS220 stepwise 2 cluster mis/classification by RECOQ2 industry type

Page 1 of 1

Col Pct	RECOQ2				Row Total
	retail	Services	Other (in manufac	c touring(in	
1.00 correct class.	77.3	63.5	61.2	85.7	118 68.2
2.00 incorrect class.	22.7	36.5	38.8	14.3	55 31.8
Column Total	22 12.7	74 42.8	49 28.3	28 16.2	173 100.0

Chi-Square	Value	DF	Significance
Pearson	6.64498	3	.08412
Likelihood Ratio	7.25149	3	.06430
Mantel-Haenszel test for linear association	.61637	1	.43240

Minimum Expected Frequency - 6.994

Number of Missing Observations: 10

CLASS220 stepwise 2 cluster mis/classification by RECOQ9A none?

Page 1 of 1

Col Pct	RECOQ9A		Row Total
	yes	no	
1.00 correct class.	86.4	65.1	118 67.8
2.00 incorrect class.	13.6	34.9	56 32.2
Column Total	22 12.6	152 87.4	174 100.0

Chi-Square	Value	DF	Significance
Pearson	3.96944	1	.04633
Continuity Correction	3.05625	1	.08043
Likelihood Ratio	4.52977	1	.03331
Mantel-Haenszel test for linear association	3.94663	1	.04697

Minimum Expected Frequency - 7.080

Number of Missing Observations: 9

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CLASS220 stepwise 2 cluster mis/classification by RECOQ9B olevels

RECOQ9B Page 1 of 1

Col Pct	RECOQ9B		Row Total
	1.00	2.00	
CLASS220			
1.00 correct class.	61.8	78.1	118 67.8
2.00 incorrect class.	38.2	21.9	56 32.2
Column Total	110 63.2	64 36.8	174 100.0

Chi-Square	Value	DF	Significance
Pearson	4.92936	1	.02640
Continuity Correction	4.21054	1	.04017
Likelihood Ratio	5.10077	1	.02392
Mantel-Haenszel test for linear association	4.90103	1	.02684

Minimum Expected Frequency - 20.598

Number of Missing Observations: 9

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CLASS220 stepwise 2 cluster mis/classification by RECOQ9C alevels

RECOQ9C Page 1 of 1

Col Pct	RECOQ9C		Row Total
	1.00	2.00	
CLASS220			
1.00 correct class.	24.4	82.9	118 67.8
2.00 incorrect class.	75.6	17.1	56 32.2
Column Total	45 25.9	129 74.1	174 100.0

Chi-Square	Value	DF	Significance
Pearson	52.31333	1	.00000
Continuity Correction	49.66730	1	.00000
Likelihood Ratio	50.73651	1	.00000
Mantel-Haenszel test for linear association	52.01268	1	.00000

Minimum Expected Frequency - 14.483

Number of Missing Observations: 9

-----

CLASS220 stepwise 2 cluster mis/classification by RECOQ9D degree

RECOQ9D Page 1 of 1

Col Pct	RECOQ9D		Row Total
	1.00	2.00	
CLASS220			
1.00 correct class.	39.3	73.3	118 67.8
2.00 incorrect class.	60.7	26.7	56 32.2
Column Total	28 16.1	146 83.9	174 100.0

Chi-Square	Value	DF	Significance
Pearson	12.44509	1	.00042
Continuity Correction	10.93597	1	.00094
Likelihood Ratio	11.63983	1	.00065
Mantel-Haenszel test for linear association	12.37356	1	.00044

Minimum Expected Frequency - 9.011

Number of Missing Observations: 9

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CLASS240 stepwise 3 cluster mis/classification by RECOQ9I professional qualification

RECOQ9I Page 1 of 1

Col Pct	RECOQ9I		Row Total
	1.00	2.00	
CLASS240			
1.00 correct class.	12.9	31.4	45 25.0
2.00 incorrect class.	87.1	68.6	135 75.0
Column Total	62 34.4	118 65.6	180 100.0

Chi-Square	Value	DF	Significance
Pearson	7.38108	1	.00659
Continuity Correction	6.42974	1	.01122
Likelihood Ratio	7.98445	1	.00472
Mantel-Haenszel test for linear association	7.34008	1	.00674

Minimum Expected Frequency - 15.500

Number of Missing Observations: 3

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CLASS240 stepwise 3 cluster mis/classification by RECOQ9K other

RECOQ9K Page 1 of 1

Col Pct	RECOQ9K		Row Total
	1.00	2.00	
CLASS240			
1.00 correct class.	41.2	21.2	45 25.0
2.00 incorrect class.	58.8	78.8	135 75.0
Column Total	34 18.9	146 81.1	180 100.0

Chi-Square	Value	DF	Significance
Pearson	5.85012	1	.01558
Continuity Correction	4.83481	1	.02789
Likelihood Ratio	5.39950	1	.02014
Mantel-Haenszel test for linear association	5.81762	1	.01587

Minimum Expected Frequency - 8.500

Number of Missing Observations: 3

Preceding task required 2.53 seconds elapsed.

**APPENDIX 3 - (e) The Importance-Adequacy Support Gap: Inter Survey Variations**

Q14C LABOUR by SURVEY survey

		SURVEY		Page 1 of 1
Col Pct		survey 1	survey 2	Row Total
		1.0	2.0	
Q14C				
Extremely Imp	1	2.8	1.1	7
Important	2	14.6	21.7	65
Neither	3	23.6	53.3	138
Unimportant	4	29.2	17.2	83
Extremely Unimp	5	29.8	6.7	65
				18.2
	Column Total	178	180	358
		49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	56.18152	4	.00000
Likelihood Ratio	58.93937	4	.00000
Mantel-Haenszel test for linear association	31.70034	1	.00000
Minimum Expected Frequency -	3.480		
Cells with Expected Frequency < 5 -	2 OF	10 ( 20.0%)	

Number of Missing Observations: 9

Q14D MATERIALS by SURVEY survey

		SURVEY		Page 1 of 1
Col Pct		survey 1	survey 2	Row Total
		1.0	2.0	
Q14D				
Extremely Imp	1	23.0	3.3	47
Important	2	27.0	26.1	95
Neither	3	14.6	47.2	111
Unimportant	4	15.2	16.7	57
Extremely Unimp	5	20.2	6.7	48
				13.4
	Column Total	178	180	358
		49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	69.58361	4	.00000
Likelihood Ratio	75.00596	4	.00000
Mantel-Haenszel test for linear association	1.29566	1	.25501
Minimum Expected Frequency -	23.369		

Number of Missing Observations: 9

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Q14E PREMISES by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q14E				
Extremely Imp	1	15.2	2.8	32 8.9
Important	2	20.8	23.9	80 22.3
Neither	3	21.3	50.6	129 36.0
Unimportant	4	23.6	16.1	71 19.8
Extremely Unimp	5	19.1	6.7	46 12.8
Column Total	178	180	358	
	49.7	50.3	100.0	

Chi-Square	Value	DF	Significance
Pearson	50.24261	4	.00000
Likelihood Ratio	52.85506	4	.00000
Mantel-Haenszel test for linear association	.78797	1	.37471

Minimum Expected Frequency - 15.911

Number of Missing Observations: 9

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Q14F PLANNING RESTRICTIONS by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q14F				
Extremely Imp	1	5.6	8.9	26 7.3
Important	2	15.2	27.2	76 21.2
Neither	3	24.2	38.3	112 31.3
Unimportant	4	27.0	16.1	77 21.5
Extremely Unimp	5	28.1	9.4	67 18.7
Column Total	178	180	358	
	49.7	50.3	100.0	

Chi-Square	Value	DF	Significance
Pearson	34.72070	4	.00000
Likelihood Ratio	35.65917	4	.00000
Mantel-Haenszel test for linear association	28.14030	1	.00000

Minimum Expected Frequency - 12.927

Number of Missing Observations: 9

Q14G LOCATION by SURVEY survey

Page 1 of 1

Q14G	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	11.2	5.0	29 8.1
Important	2	28.7	23.9	94 26.3
Neither	3	27.0	48.9	136 38.0
Unimportant	4	16.9	15.6	58 16.2
Extremely Unimp	5	16.3	6.7	41 11.5
Column Total		178 49.7	180 50.3	358 100.0

Chi-Square	Value	DF	Significance
Pearson	23.72528	4	.00009
Likelihood Ratio	24.22475	4	.00007
Mantel-Haenszel test for linear association	.08133	1	.77550

Minimum Expected Frequency - 14.419

Number of Missing Observations: 9

Q14K DEBT PAYMENT by SURVEY survey

Page 1 of 1

Q14K	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	37.1	3.3	72 20.1
Important	2	36.0	33.3	124 34.6
Neither	3	11.2	38.9	90 25.1
Unimportant	4	5.1	13.9	34 9.5
Extremely Unimp	5	10.7	10.6	38 10.6
Column Total		178 49.7	180 50.3	358 100.0

Chi-Square	Value	DF	Significance
Pearson	85.42771	4	.00000
Likelihood Ratio	95.88140	4	.00000
Mantel-Haenszel test for linear association	37.46792	1	.00000

Minimum Expected Frequency - 16.905

Number of Missing Observations: 9

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Q14L PRICE COMPETITION by SURVEY survey

		SURVEY		Page 1 of 1
Col Pct		survey 1	survey 2	Row
		1.0	2.0	Total
Q14L				
	1	25.3	6.7	57
Extremely Imp				15.9
	2	48.9	42.8	164
Important				45.8
	3	17.4	35.0	94
Neither				26.3
	4	5.6	7.8	24
Unimportant				6.7
	5	2.8	7.8	19
Extremely Unimp				5.3
	Column	178	180	358
	Total	49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	35.52840	4	.00000
Likelihood Ratio	37.17040	4	.00000
Mantel-Haenszel test for linear association	27.13696	1	.00000
Minimum Expected Frequency -	9.447		

Number of Missing Observations: 9

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Q14M QUALITY COMPETITION by SURVEY survey

		SURVEY		Page 1 of 1
Col Pct		survey 1	survey 2	Row
		1.0	2.0	Total
Q14M				
	1	27.0	10.6	67
Extremely Imp				18.7
	2	48.3	28.3	137
Important				38.3
	3	16.9	45.6	112
Neither				31.3
	4	3.9	8.3	22
Unimportant				6.1
	5	3.9	7.2	20
Extremely Unimp				5.6
	Column	178	180	358
	Total	49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	50.33619	4	.00000
Likelihood Ratio	51.90712	4	.00000
Mantel-Haenszel test for linear association	33.76288	1	.00000
Minimum Expected Frequency -	9.944		

Number of Missing Observations: 9



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Q140 SECTOR SPECIFIC by SURVEY survey

Page 1 of 1

Q140	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	28.3	7.8	57 17.2
Important	2	40.8	27.8	112 33.7
Neither	3	21.1	37.2	99 29.8
Unimportant	4	5.3	18.3	41 12.3
Extremely Unimp	5	4.6	8.9	23 6.9
Column Total		152	180	332
		45.8	54.2	100.0

Chi-Square	Value	DF	Significance
Pearson	45.13910	4	.00000
Likelihood Ratio	47.02034	4	.00000
Mantel-Haenszel test for linear association	37.65643	1	.00000

Minimum Expected Frequency - 10.530

Number of Missing Observations: 35

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Q150 FINANCIAL DATA by SURVEY survey

Page 1 of 1

Q150	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	27.5	32.6	108 30.1
Important	2	51.7	51.9	186 51.8
Neither	3	16.9	11.0	50 13.9
Unimportant	4	2.2	2.2	8 2.2
Extremely Unimp	5	1.7	2.2	7 1.9
Column Total		178	181	359
		49.6	50.4	100.0

Chi-Square	Value	DF	Significance
Pearson	3.06543	4	.54694
Likelihood Ratio	3.08059	4	.54443
Mantel-Haenszel test for linear association	1.12124	1	.28965

Minimum Expected Frequency - 3.471  
 Cells with Expected Frequency < 5 - 4 OF 10 ( 40.0%)

Number of Missing Observations: 8

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Q15A MARKET RESEARCH by SURVEY survey

Page 1 of 1

Q15A	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	16.9	12.7	53 14.8
Important	2	47.8	63.5	200 55.7
Neither	3	25.8	15.5	74 20.6
Unimportant	4	7.3	6.1	24 6.7
Extremely Unimp	5	2.2	2.2	8 2.2
Column Total		178 49.6	181 50.4	359 100.0

Chi-Square	Value	DF	Significance
Pearson	9.94520	4	.04136
Likelihood Ratio	10.00866	4	.04028
Mantel-Haenszel test for linear association	.91634	1	.33844
Minimum Expected Frequency -	3.967		
Cells with Expected Frequency < 5 -	2 OF	10 ( 20.0%)	

Number of Missing Observations: 8

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Q15B MARKETING by SURVEY survey

Page 1 of 1

Q15B	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	31.5	6.6	68 18.9
Important	2	52.2	53.0	189 52.6
Neither	3	13.5	27.6	74 20.6
Unimportant	4	1.7	9.9	21 5.8
Extremely Unimp	5	1.1	2.8	7 1.9
Column Total		178 49.6	181 50.4	359 100.0

Chi-Square	Value	DF	Significance
Pearson	49.63174	4	.00000
Likelihood Ratio	53.46328	4	.00000
Mantel-Haenszel test for linear association	42.51753	1	.00000
Minimum Expected Frequency -	3.471		
Cells with Expected Frequency < 5 -	2 OF	10 ( 20.0%)	

Number of Missing Observations: 8

-----

Q15C PRODUCT DEVELOPMENT by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15C				
Extremely Imp	1	22.5	3.3	46 12.8
Important	2	36.0	30.9	120 33.4
Neither	3	26.4	48.6	135 37.6
Unimportant	4	7.9	12.7	37 10.3
Extremely Unimp	5	7.3	4.4	21 5.8
Column Total		178	181	359 100.0

Chi-Square	Value	DF	Significance
Pearson	41.47311	4	.00000
Likelihood Ratio	44.71866	4	.00000
Mantel-Haenszel test for linear association	15.37610	1	.00009

Minimum Expected Frequency - 10.412

Number of Missing Observations: 8

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Q15D PROCESS DEVELOPMENT by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15D				
Extremely Imp	1	12.4	2.8	27 7.5
Important	2	20.2	19.9	72 20.1
Neither	3	31.5	60.2	165 46.0
Unimportant	4	18.5	12.2	55 15.3
Extremely Unimp	5	17.4	5.0	40 11.1
Column Total		178	181	359 100.0

Chi-Square	Value	DF	Significance
Pearson	42.00581	4	.00000
Likelihood Ratio	43.87330	4	.00000
Mantel-Haenszel test for linear association	1.12205	1	.28948

Minimum Expected Frequency - 13.387

Number of Missing Observations: 8

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Q15E MARKET DIVERSIFICATION by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15E				
Extremely Imp	1	24.7	6.1	55 15.3
Important	2	39.9	31.5	128 35.7
Neither	3	21.9	47.0	124 34.5
Unimportant	4	8.4	11.6	36 10.0
Extremely Unimp	5	5.1	3.9	16 4.5
Column Total	178	181	359	
	49.6	50.4	100.0	

Chi-Square	Value	DF	Significance
Pearson	39.62346	4	.00000
Likelihood Ratio	41.44570	4	.00000
Mantel-Haenszel test for linear association	18.88469	1	.00001
Minimum Expected Frequency -	7.933		

Number of Missing Observations: 8

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Q15F STOCK MANAGEMENT by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15F				
Extremely Imp	1	11.8	5.5	31 8.6
Important	2	29.2	30.4	107 29.8
Neither	3	25.8	48.1	133 37.0
Unimportant	4	16.9	11.6	51 14.2
Extremely Unimp	5	16.3	4.4	37 10.3
Column Total	178	181	359	
	49.6	50.4	100.0	

Chi-Square	Value	DF	Significance
Pearson	30.11062	4	.00000
Likelihood Ratio	31.15169	4	.00000
Mantel-Haenszel test for linear association	2.35014	1	.12527
Minimum Expected Frequency -	15.370		

Number of Missing Observations: 8

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Q15G PURCHASING ABILITY by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15G				
Extremely Imp	1	21.9	7.7	53 14.8
Important	2	30.3	27.1	103 28.7
Neither	3	21.3	50.3	129 35.9
Unimportant	4	12.4	9.9	40 11.1
Extremely Unimp	5	14.0	5.0	34 9.5
Column Total		178	181	359 100.0

Chi-Square	Value	DF	Significance
Pearson	41.71762	4	.00000
Likelihood Ratio	43.16116	4	.00000
Mantel-Haenszel test for linear association	.84896	1	.35685

Minimum Expected Frequency - 16.858

Number of Missing Observations: 8

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Q15H LONG TERM PLANNING by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15H				
Extremely Imp	1	18.5	8.8	49 13.6
Important	2	51.7	49.2	181 50.4
Neither	3	21.9	28.2	90 25.1
Unimportant	4	3.9	9.9	25 7.0
Extremely Unimp	5	3.9	3.9	14 3.9
Column Total		178	181	359 100.0

Chi-Square	Value	DF	Significance
Pearson	12.36348	4	.01484
Likelihood Ratio	12.66150	4	.01305
Mantel-Haenszel test for linear association	7.86157	1	.00505

Minimum Expected Frequency - 6.942

Number of Missing Observations: 8

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Q15I MARKET KNOWLEDGE by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15I				
Extremely Imp	1	38.8	17.1	100
				27.9
Important	2	56.2	53.6	197
				54.9
Neither	3	3.9	20.4	44
				12.3
Unimportant	4	.6	5.5	11
				3.1
Extremely Unimp	5	.6	3.3	7
				1.9
Column Total	178	181	359	
	49.6	50.4	100.0	

Chi-Square	Value	DF	Significance
Pearson	45.85343	4	.00000
Likelihood Ratio	49.77853	4	.00000
Mantel-Haenszel test for linear association	40.69462	1	.00000

Minimum Expected Frequency - 3.471  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 8

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Q15J PERSONNEL MANAGEMENT by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15J				
Extremely Imp	1	10.7	2.8	24
				6.7
Important	2	24.7	22.7	85
				23.7
Neither	3	28.1	54.1	148
				41.2
Unimportant	4	18.5	14.4	59
				16.4
Extremely Unimp	5	18.0	6.1	43
				12.0
Column Total	178	181	359	
	49.6	50.4	100.0	

Chi-Square	Value	DF	Significance
Pearson	34.90381	4	.00000
Likelihood Ratio	36.18174	4	.00000
Mantel-Haenszel test for linear association	.79381	1	.37295

Minimum Expected Frequency - 11.900

Number of Missing Observations: 8

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Q15K COMMUNICATION by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15K				
Extremely Imp	1	79.8	16.6	172 47.9
Important	2	18.5	48.1	120 33.4
Neither	3	1.1	21.5	41 11.4
Unimportant	4		11.0	20 5.6
Extremely Unimp	5	.6	2.8	6 1.7
Column Total	178	181		359 100.0

Chi-Square	Value	DF	Significance
Pearson	153.27278	4	.00000
Likelihood Ratio	175.89348	4	.00000
Mantel-Haenszel test for linear association	122.03969	1	.00000
Minimum Expected Frequency - 2.975			
Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)			

Number of Missing Observations: 8

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Q15L BORROWING ABILITY by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15L				
Extremely Imp	1	11.2	8.8	36 10.0
Important	2	24.7	36.5	110 30.6
Neither	3	29.8	34.8	116 32.3
Unimportant	4	18.5	12.7	56 15.6
Extremely Unimp	5	15.7	7.2	41 11.4
Column Total	178	181		359 100.0

Chi-Square	Value	DF	Significance
Pearson	12.95587	4	.01149
Likelihood Ratio	13.12587	4	.01068
Mantel-Haenszel test for linear association	6.12157	1	.01335
Minimum Expected Frequency - 17.850			

Number of Missing Observations: 8

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Q15M INTERNAL FUNDING by SURVEY survey

Page 1 of 1

Q15M	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	22.5	3.9	47 13.1
Important	2	38.2	21.5	107 29.8
Neither	3	27.0	48.6	136 37.9
Unimportant	4	6.7	17.7	44 12.3
Extremely Unimp	5	5.6	8.3	25 7.0
Column Total		178 49.6	181 50.4	359 100.0

Chi-Square	Value	DF	Significance
Pearson	52.86426	4	.00000
Likelihood Ratio	55.90935	4	.00000
Mantel-Haenszel test for linear association	38.82574	1	.00000

Minimum Expected Frequency - 12.396

Number of Missing Observations: 8

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Q15N CASH FLOW by SURVEY survey

Page 1 of 1

Q15N	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	53.9	11.6	117 32.6
Important	2	38.2	51.4	161 44.8
Neither	3	6.2	23.2	53 14.8
Unimportant	4	1.1	8.3	17 4.7
Extremely Unimp	5	.6	5.5	11 3.1
Column Total		178 49.6	181 50.4	359 100.0

Chi-Square	Value	DF	Significance
Pearson	87.37683	4	.00000
Likelihood Ratio	95.08490	4	.00000
Mantel-Haenszel test for linear association	74.79604	1	.00000

Minimum Expected Frequency - 5.454

Number of Missing Observations: 8



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Q15P FINANCIAL ABILITY by SURVEY survey

		SURVEY		Page 1 of 1
Col Pct		survey 1	survey 2	Row Total
		1.0	2.0	
Q15P				
	1	29.2	29.4	105
	Extremely Imp			29.3
	2	47.8	50.6	176
	Important			49.2
	3	18.0	14.4	58
	Neither			16.2
	4	3.4	2.8	11
	Unimportant			3.1
	5	1.7	2.8	8
	Extremely Unimp			2.2
	Column	178	180	358
	Total	49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	1.41454	4	.84166
Likelihood Ratio	1.42112	4	.84052
Mantel-Haenszel test for linear association	.03205	1	.85792

Minimum Expected Frequency - 3.978  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 9

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Q15Q FIXED COSTS by SURVEY survey

		SURVEY		Page 1 of 1
Col Pct		survey 1	survey 2	Row Total
		1.0	2.0	
Q15Q				
	1	23.0	16.1	70
	Extremely Imp			19.6
	2	41.6	50.6	165
	Important			46.1
	3	20.8	25.6	83
	Neither			23.2
	4	7.3	5.6	23
	Unimportant			6.4
	5	7.3	2.2	17
	Extremely Unimp			4.7
	Column	178	180	358
	Total	49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	9.92971	4	.04163
Likelihood Ratio	10.19783	4	.03722
Mantel-Haenszel test for linear association	.43571	1	.50920

Minimum Expected Frequency - 8.453

Number of Missing Observations: 9

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Q15S PRODUCTIVE CAPACITY by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total
	survey 1	survey 2	
	1.0	2.0	
Q15S			
1 Extremely Imp	26.4	2.2	51 14.2
2 Important	38.2	21.1	106 29.6
3 Neither	21.3	60.6	147 41.1
4 Unimportant	5.6	11.1	30 8.4
5 Extremely Unimp	8.4	5.0	24 6.7
Column Total	178 49.7	180 50.3	358 100.0

Chi-Square	Value	DF	Significance
Pearson	83.86276	4	.00000
Likelihood Ratio	91.93805	4	.00000
Mantel-Haenszel test for linear association	33.76025	1	.00000

Minimum Expected Frequency - 11.933

Number of Missing Observations: 9

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Q15T STAFF SKILLS by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total
	survey 1	survey 2	
	1.0	2.0	
Q15T			
1 Extremely Imp	36.0	3.9	71 19.8
2 Important	21.9	23.9	82 22.9
3 Neither	15.7	52.8	123 34.4
4 Unimportant	11.8	13.9	46 12.8
5 Extremely Unimp	14.6	5.6	36 10.1
Column Total	178 49.7	180 50.3	358 100.0

Chi-Square	Value	DF	Significance
Pearson	89.90219	4	.00000
Likelihood Ratio	99.16130	4	.00000
Mantel-Haenszel test for linear association	12.96690	1	.00032

Minimum Expected Frequency - 17.899

Number of Missing Observations: 9

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Q15U ACCESS TO NETWORKS by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15U				
Extremely Imp	1	12.9	1.7	26 7.3
Important	2	28.7	29.4	104 29.1
Neither	3	34.3	43.9	140 39.1
Unimportant	4	14.0	18.9	59 16.5
Extremely Unimp	5	10.1	6.1	29 8.1
Column Total	178	180	358	
	49.7	50.3	100.0	

Chi-Square	Value	DF	Significance
Pearson	20.78937	4	.00035
Likelihood Ratio	22.87975	4	.00013
Mantel-Haenszel test for linear association	2.90528	1	.08829

Minimum Expected Frequency - 12.927

Number of Missing Observations: 9

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Q15V ACCESS TO ADVISORS by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q15V				
Extremely Imp	1	11.2	16.1	49 13.7
Important	2	32.6	51.7	151 42.2
Neither	3	36.0	22.2	104 29.1
Unimportant	4	12.4	8.3	37 10.3
Extremely Unimp	5	7.9	1.7	17 4.7
Column Total	178	180	358	
	49.7	50.3	100.0	

Chi-Square	Value	DF	Significance
Pearson	23.73564	4	.00009
Likelihood Ratio	24.48221	4	.00006
Mantel-Haenszel test for linear association	18.00228	1	.00002

Minimum Expected Frequency - 8.453

Number of Missing Observations: 9

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Q15W ACCESS TO KNOW-HOW by SURVEY survey

Page 1 of 1

Col Pct		SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Q15W				
	1	13.5	7.8	38
Extremely Imp				10.6
	2	33.1	23.9	102
Important				28.5
	3	40.4	48.3	159
Neither				44.4
	4	6.2	14.4	37
Unimportant				10.3
	5	6.7	5.6	22
Extremely Unimp				6.1
Column Total		178	180	358
		49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	12.80860	4	.01225
Likelihood Ratio	13.03080	4	.01113
Mantel-Haenszel test for linear association	6.39035	1	.01147

Minimum Expected Frequency - 10.939

Number of Missing Observations: 9

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Q15X ACCESS TO NEW TECHNOLOGY by SURVEY survey

Page 1 of 1

Col Pct		SURVEY		Total
		survey 1	survey 2	
		1.0	2.0	
Q15X				
	1	18.0	1.7	35
Extremely Imp				9.8
	2	28.7	18.3	84
Important				23.5
	3	37.1	56.7	168
Neither				46.9
	4	6.2	17.8	43
Unimportant				12.0
	5	10.1	5.6	28
Extremely Unimp				7.8
Column Total		178	180	358
Total		49.7	50.3	100.0

Chi-Square	Value	DF	Significance
Pearson	48.13186	4	.00000
Likelihood Ratio	52.72131	4	.00000
Mantel-Haenszel test for linear association	17.79141	1	.00002

Minimum Expected Frequency - 13.922

Number of Missing Observations: 9

-----

Q16C OM PRESSURE(COPING) by SURVEY survey

Page 1 of 1

Q16C	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	54.8	5.6	107 30.0
Important	2	40.1	23.9	114 31.9
Neither	3	4.0	43.3	85 23.8
Unimportant	4	1.1	17.8	34 9.5
Extremely Unimp	5		9.4	17 4.8
Column Total		177 49.6	180 50.4	357 100.0

Chi-Square	Value	DF	Significance
Pearson	180.37951	4	.00000
Likelihood Ratio	213.77842	4	.00000
Mantel-Haenszel test for linear association	157.76451	1	.00000
Minimum Expected Frequency -	8.429		

Number of Missing Observations: 10

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Q16D OM DRIVE by SURVEY survey

Page 1 of 1

Q16D	Col Pct	SURVEY		Row Total
		survey 1	survey 2	
		1.0	2.0	
Extremely Imp	1	63.3	8.9	128 35.9
Important	2	30.5	35.0	117 32.8
Neither	3	6.2	32.2	69 19.3
Unimportant	4		13.3	24 6.7
Extremely Unimp	5		10.6	19 5.3
Column Total		177 49.6	180 50.4	357 100.0

Chi-Square	Value	DF	Significance
Pearson	147.69202	4	.00000
Likelihood Ratio	176.38365	4	.00000
Mantel-Haenszel test for linear association	133.48312	1	.00000
Minimum Expected Frequency -	9.420		

Number of Missing Observations: 10

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Q16G CORPORATE CULTURE by SURVEY survey

Page 1 of 1

Col Pct	SURVEY		Row Total	
	survey 1	survey 2		
	1.0	2.0		
Q16G				
Extremely Imp	1	21.5	2.2	42 11.8
Important	2	23.2	21.7	80 22.4
Neither	3	30.5	48.9	142 39.8
Unimportant	4	10.7	17.2	50 14.0
Extremely Unimp	5	14.1	10.0	43 12.0
Column Total		177	180	357 100.0

Chi-Square	Value	DF	Significance
Pearson	39.71178	4	.00000
Likelihood Ratio	44.10521	4	.00000
Mantel-Haenszel test for linear association	9.92583	1	.00163

Minimum Expected Frequency - 20.824

Number of Missing Observations: 10

**APPENDIX 3 - (f) Variations in Awareness of Further Support**

RECOQ18A bas by CLU2\_1 Ward Method all q16 2cl sol

Page 1 of 1

		CLU2_1		Row Total
Row Pct	Col Pct	c1	c2	
1.00		11.2	88.8	107
yes		42.9	62.5	59.4
2.00		21.9	78.1	73
no		57.1	37.5	40.6
Column Total		28	152	180
		15.6	84.4	100.0

Chi-Square	Value	DF	Significance
Pearson	3.78422	1	.05174
Continuity Correction	3.01330	1	.08258
Likelihood Ratio	3.71394	1	.05396
Mantel-Haenszel test for linear association	3.76320	1	.05239

Minimum Expected Frequency - 11.356

Number of Missing Observations: 3

RECOQ18A bas by Q16U Getting Business Advice

Page 1 of 1

		Q16U					Row Total
Row Pct	Col Pct	Very Ade quately 1	Adequate ly Adde 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00		15.9	59.8	15.0	8.4	.9	107
yes		58.6	68.8	40.0	60.0	33.3	59.4
2.00		16.4	39.7	32.9	8.2	2.7	73
no		41.4	31.2	60.0	40.0	66.7	40.6
Column Total		29	93	40	15	3	180
		16.1	51.7	22.2	8.3	1.7	100.0

Chi-Square	Value	DF	Significance
Pearson	10.52059	4	.03251
Likelihood Ratio	10.46219	4	.03332
Mantel-Haenszel test for linear association	2.74361	1	.09764

Minimum Expected Frequency - 1.217  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

RECOQ18A bas by Q16K Communicating With Customers

Page 1 of 1

		Q16K					Row Total
Row Pct	Col Pct	Very Ade quately 1	Adequate ly Adde 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00		15.7	55.6	20.4	7.4	.9	108
yes		56.7	69.0	56.4	40.0	20.0	59.7
2.00		17.8	37.0	23.3	16.4	5.5	73
no		43.3	31.0	43.6	60.0	80.0	40.3
Column Total		30	87	39	20	5	181
		16.6	48.1	21.5	11.0	2.8	100.0

Chi-Square	Value	DF	Significance
Pearson	9.89359	4	.04226
Likelihood Ratio	9.93594	4	.04152
Mantel-Haenszel test for linear association	4.85403	1	.02758

Minimum Expected Frequency - 2.017  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2

RECOQ18A bas by Q16H Long Term Planning

Page 1 of 1

		Q16H					Row Total
Row Pct	Col Pct	Very Adequately 1	Adequately Addressed 2	Neither 3	Inadequately addressed 4	Very Inadequate 5	
1.00	yes	10.2 68.8	54.6 66.3	22.2 47.1	11.1 66.7	1.9 28.6	108 59.7
2.00	no	6.8 31.3	41.1 33.7	37.0 52.9	8.2 33.3	6.8 71.4	73 40.3
Column Total		16 8.8	89 49.2	51 28.2	18 9.9	7 3.9	181 100.0

Chi-Square	Value	DF	Significance
Pearson	8.71972	4	.06850
Likelihood Ratio	8.66300	4	.07010
Mantel-Haenszel test for linear association	3.76650	1	.05229

Minimum Expected Frequency - 2.823  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2

RECOQ18A bas by RECOQ4 Company Ownership

Page 1 of 1

		RECOQ4		Row Total
Row Pct	Col Pct	Sole Trader 1	Other 2	
1.00	yes	80.4 55.8	19.6 75.0	107 58.8
2.00	no	90.7 44.2	9.3 25.0	75 41.2
Column Total		154 84.6	28 15.4	182 100.0

Chi-Square	Value	DF	Significance
Pearson	3.58846	1	.05818
Continuity Correction	2.84133	1	.09187
Likelihood Ratio	3.77846	1	.05192
Mantel-Haenszel test for linear association	3.56874	1	.05888

Minimum Expected Frequency - 11.538

Number of Missing Observations: 1

RECOQ18C dctec dev fund by Q16E Market Diversification

Page 1 of 1

		Q16E					Row Total
Row Pct	Col Pct	Very Adequately 1	Adequately Addressed 2	Neither 3	Inadequately addressed 4	Very Inadequate 5	
1.00	yes	11.8 54.5	19.6 17.5	54.9 32.9	11.8 28.6	2.0 14.3	51 28.2
2.00	no	3.8 45.5	36.2 82.5	43.8 67.1	11.5 71.4	4.6 85.7	130 71.8
Column Total		11 6.1	57 31.5	85 47.0	21 11.6	7 3.9	181 100.0

Chi-Square	Value	DF	Significance
Pearson	8.58615	4	.07232
Likelihood Ratio	8.54191	4	.07363
Mantel-Haenszel test for linear association	.09056	1	.76347

Minimum Expected Frequency - 1.972  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2



RECOQ18R none by Q16AI Maintaining Your Motivation

Page 1 of 1

		Q16AI					
Row Pct	Col Pct	Very Adequately 1	Adequately 2	Neither 3	Inadequately 4	Very Inadequately 5	Row Total
1.00	yes	5.0	25.0	40.0	10.0	20.0	40
		12.5	15.9	27.6	16.7	42.1	22.2
2.00	no	10.0	37.9	30.0	14.3	7.9	140
		87.5	84.1	72.4	83.3	57.9	77.8
Column Total		16	63	58	24	19	180
		8.9	35.0	32.2	13.3	10.6	100.0

Chi-Square	Value	DF	Significance
Pearson	8.08434	4	.08854
Likelihood Ratio	7.69009	4	.10361
Mantel-Haenszel test for linear association	4.62936	1	.03143

Minimum Expected Frequency - 3.556  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

RECOQ18E workstart by Q13 PROFIT PERFORMANCE

Page 1 of 1

		Q13					
Row Pct	Col Pct	Very Satisfactory 1	Satisfactory 2	Neither Satisfactory 3	Unsatisfactory 4	Very Unsatisfactory 5	Row Total
1.00	yes	23.7	39.5	28.9		7.9	38
		30.0	15.8	35.5		27.3	20.8
2.00	no	14.5	55.2	13.8	11.0	5.5	145
		70.0	84.2	64.5	100.0	72.7	79.2
Column Total		30	95	31	16	11	183
		16.4	51.9	16.9	8.7	6.0	100.0

Chi-Square	Value	DF	Significance
Pearson	11.54257	4	.02110
Likelihood Ratio	14.22472	4	.00661
Mantel-Haenszel test for linear association	.22091	1	.63834

Minimum Expected Frequency - 2.284  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

RECOQ18H dctec info point by Q10 SEX

Page 1 of 1

		Q10		
Row Pct	Col Pct	Male 1	Female 2	Row Total
1.00	yes	85.7	14.3	35
		23.3	9.6	19.3
2.00	no	67.8	32.2	146
		76.7	90.4	80.7
Column Total		129	52	181
		71.3	28.7	100.0

Chi-Square	Value	DF	Significance
Pearson	4.42086	1	.03550
Continuity Correction	3.58960	1	.05814
Likelihood Ratio	4.92131	1	.02653
Mantel-Haenszel test for linear association	4.39644	1	.03601

Minimum Expected Frequency - 10.055

Number of Missing Observations: 2

RECOQ18H dctec info point by Q11 OH AGE

Page 1 of 1

		Q11					Row Total
Row Pct	Col Pct	Under 25	25-34	35-44	45-54	55-64	
		1	2	3	4	5	
RECOQ18H	1.00	5.7	11.4	20.0	37.1	25.7	35
	yes	20.0	8.7	15.9	23.2	34.6	19.2
	2.00	5.4	28.6	25.2	29.3	11.6	147
	no	80.0	91.3	84.1	76.8	65.4	80.8
	Column Total	10	46	44	56	26	182
		5.5	25.3	24.2	30.8	14.3	100.0

Chi-Square	Value	DF	Significance
Pearson	8.13733	4	.08668
Likelihood Ratio	8.22119	4	.08380
Mantel-Haenszel test for linear association	6.03397	1	.01403

Minimum Expected Frequency - 1.923  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 1

RECOQ18H dctec info point by Q5A COMPANY LOCATION

Page 1 of 1

		Q5A		Row Total
Row Pct	Col Pct	Devon	Cornwall	
		1	2	
RECOQ18H	1.00	88.2	11.8	34
	yes	21.3	9.8	18.7
	2.00	75.0	25.0	148
	no	78.7	90.2	81.3
	Column Total	141	41	182
		77.5	22.5	100.0

Chi-Square	Value	DF	Significance
Pearson	2.77508	1	.09574
Continuity Correction	2.06854	1	.15037
Likelihood Ratio	3.11371	1	.07764
Mantel-Haenszel test for linear association	2.75984	1	.09666

Minimum Expected Frequency - 7.659

Number of Missing Observations: 1

RECOQ18H dctec info point by RECOQ9D degree

Page 1 of 1

		RECOQ9D		Row Total
Row Pct	Col Pct	1.00	2.00	
RECOQ18H	1.00	2.9	97.1	35
	yes	3.3	22.2	19.1
	2.00	19.6	80.4	148
	no	96.7	77.8	80.9
	Column Total	30	153	183
		16.4	83.6	100.0

Chi-Square	Value	DF	Significance
Pearson	5.78558	1	.01616
Continuity Correction	4.62884	1	.03144
Likelihood Ratio	7.76395	1	.00533
Mantel-Haenszel test for linear association	5.75396	1	.01645

Minimum Expected Frequency - 5.738

Number of Missing Observations: 0

-----  
 RECOQ18H dctec info point by RECOQ4 Company Ownership

RECOQ4 Page 1 of 1

Row Pct Col Pct	Sole Tra Other		Row Total
	der 1	2	
1.00 yes	73.5 16.2	26.5 32.1	34 18.7
2.00 no	87.2 83.8	12.8 67.9	148 81.3
Column Total	154 84.6	28 15.4	182 100.0

Chi-Square	Value	DF	Significance
Pearson	3.94730	1	.04695
Continuity Correction	2.96952	1	.08485
Likelihood Ratio	3.52035	1	.06062
Mantel-Haenszel test for linear association	3.92561	1	.04756

Minimum Expected Frequency - 5.231

Number of Missing Observations: 1

-----  
 RECOQ18B investors in people by RECOQ9B olevels

RECOQ9B Page 1 of 1

Row Pct Col Pct	1.00		2.00		Row Total
	1.00 yes	85.7 10.3	14.3 3.0		
2.00 no	61.5 89.7	38.5 97.0			169 92.3
Column Total	116 63.4	67 36.6			183 100.0

Chi-Square	Value	DF	Significance
Pearson	3.25608	1	.07116
Continuity Correction	2.29768	1	.12957
Likelihood Ratio	3.72483	1	.05361
Mantel-Haenszel test for linear association	3.23829	1	.07194

Minimum Expected Frequency - 5.126

Number of Missing Observations: 0

-----  
 RECOQ18O business link by RECOQ7 Previous Occupation

RECOQ7 Page 1 of 1

Row Pct Col Pct	Self Emp	Employee	Employee	Unemploy	Other	Row Total
	loyed 1	in same 2	not in 3	ed 4	5	
1.00 yes		22.7 10.9	63.6 26.4	9.1 3.8	4.5 5.9	22 12.0
2.00 no	9.3 100.0	25.5 89.1	24.2 73.6	31.1 96.2	9.9 94.1	161 88.0
Column Total	15 8.2	46 25.1	53 29.0	52 28.4	17 9.3	183 100.0

Chi-Square	Value	DF	Significance
Pearson	16.38077	4	.00255
Likelihood Ratio	17.06574	4	.00188
Mantel-Haenszel test for linear association	.20227	1	.65290

Minimum Expected Frequency - 1.803  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 0

-----  
 RECOQ18L second step by RECO2Q14 Growth Ambitions 3

Page 1 of 1

Row Pct Col Pct	RECO2Q14			Row Total
	no	low (1-5 0%)	High (50 %+)	
	1	2	3	
1.00	11.8	58.8	29.4	17
yes	2.6	12.2	20.0	9.3
2.00	44.6	43.4	12.0	166
no	97.4	87.8	80.0	90.7
Column Total	76 41.5	82 44.8	25 13.7	183 100.0

Chi-Square	Value	DF	Significance
Pearson	8.22283	2	.01638
Likelihood Ratio	8.83503	2	.01206
Mantel-Haenszel test for linear association	8.14209	1	.00432

Minimum Expected Frequency - 2.322  
 Cells with Expected Frequency < 5 - 1 OF 6 ( 16.7%)

Number of Missing Observations: 0

### APPENDIX 3 - (g) Variations in Use of Support

Q19A Use of Support by RECOQ18A bas awareness

Page 1 of 1

		RECOQ18A		Row Total
Row Pct	Col Pct	1.00	2.00	
Q19A				
Yes	1	83.3	16.7	18
		13.9	4.0	9.8
No	2	56.4	43.6	165
		86.1	96.0	90.2
Column Total		108	75	183
		59.0	41.0	100.0

Chi-Square	Value	DF	Significance
Pearson	4.88062	1	.02716
Continuity Correction	3.82926	1	.05037
Likelihood Ratio	5.42959	1	.01980
Mantel-Haenszel test for linear association	4.85395	1	.02758

Minimum Expected Frequency - 7.377

Number of Missing Observations: 0

Q19A Use of Support by RECOQ4 Company Ownership

Page 1 of 1

		RECOQ4		Row Total
Row Pct	Col Pct	Sole Trader	Other	
Q19A				
Yes	1	66.7	33.3	18
		7.8	21.4	9.9
No	2	86.6	13.4	164
		92.2	78.6	90.1
Column Total		154	28	182
		84.6	15.4	100.0

Chi-Square	Value	DF	Significance
Pearson	4.94346	1	.02619
Continuity Correction	3.53174	1	.06020
Likelihood Ratio	4.06363	1	.04382
Mantel-Haenszel test for linear association	4.91630	1	.02660
Fisher's Exact Test:			
One-Tail			.03801
Two-Tail			.07602

Minimum Expected Frequency - 2.769  
 Cells with Expected Frequency < 5 - 1 OF 4 ( 25.0%)

Number of Missing Observations: 1

Q19A Use of Support by RECOQ1 Company Age 2

Page 1 of 1

		RECOQ1				Row Total
Row Pct	Col Pct	0-12 mths	13-18 mths	19-24 mths	over 24 months	
Q19A						
Yes	1		5.6	22.2	72.2	18
			2.3	8.0	16.7	9.9
No	2	6.1	25.8	28.2	39.9	163
		100.0	97.7	92.0	83.3	90.1
Column Total		10	43	50	78	181
		5.5	23.8	27.6	43.1	100.0

Chi-Square	Value	DF	Significance
Pearson	8.03803	3	.04523
Likelihood Ratio	9.57653	3	.02253
Mantel-Haenszel test for linear association	7.67530	1	.00560

Minimum Expected Frequency - .994  
 Cells with Expected Frequency < 5 - 3 OF 8 ( 37.5%)

Number of Missing Observations: 2

**APPENDIX 3 - (h) Variations in Reasons for Use**

Q20A Why Used Support? by Q5B URBAN/RURAL

Q5B Page 1 of 1

Row Pct Col Pct	Q5B		Row Total
	Urban	Rural	
Q20A	1	2	
Particular	33.3	66.7	3
Operational Prob	12.5	22.2	17.6
To Aid Growth	2	3	7
	85.7	14.3	41.2
Training Support	3	4	3
		100.0	17.6
Other	4	5	4
	25.0	75.0	23.5
Column Total	8	9	17
	47.1	52.9	100.0

Chi-Square	Value	DF	Significance
Pearson	7.87318	3	.04871
Likelihood Ratio	9.44875	3	.02388
Mantel-Haenszel test for linear association	1.58351	1	.20826

Minimum Expected Frequency - 1.412  
 Cells with Expected Frequency < 5 - 8 OF 8 (100.0%)

Number of Missing Observations: 166

Q20A Why Used Support? by Q16AA Finding the Best Location

Q16AA Page 1 of 1

Row Pct Col Pct	Q16AA				Row Total
	Adequate ly Adre 2	Neither 3	Inadequa tely add 4	Very Ina dequate 5	
Q20A	1	2	3	4	
Particular	66.7		33.3		3
Operational Prob	66.7		14.3		17.6
To Aid Growth	2	3	4	5	7
		28.6	71.4		41.2
Training Support	3	4	5		3
		100.0			17.6
Other	4	5	6	7	4
	25.0	25.0	25.0	25.0	23.5
Column Total	3	6	7	1	17
	17.6	35.3	41.2	5.9	100.0

Chi-Square	Value	DF	Significance
Pearson	17.13974	9	.04657
Likelihood Ratio	17.70851	9	.03871
Mantel-Haenszel test for linear association	.34979	1	.55423

Minimum Expected Frequency - .176  
 Cells with Expected Frequency < 5 - 16 OF 16 (100.0%)

Number of Missing Observations: 166

-----  
 Q20A Why Used Support? by Q16P Doing Accounts & Managing Finance

Page 1 of 1

Q20A	Row Pct Col Pct	Q16P				Row Total
		Very Ade quately 1	Adequate ly Addre 2	Neither 3	Very Ina dequatel 5	
Particular	1		100.0			3
Operational Prob			50.0			17.6
To Aid Growth	2	14.3	42.9	42.9		7
		16.7	50.0	75.0		41.2
Training Support	3	100.0				3
		50.0				17.6
Other	4	50.0		25.0	25.0	4
		33.3		25.0	100.0	23.5
Column Total		6 35.3	6 35.3	4 23.5	1 5.9	17 100.0

Chi-Square	Value	DF	Significance
Pearson	17.65774	9	.03936
Likelihood Ratio	19.85951	9	.01880
Mantel-Haenszel test for linear association	.01298	1	.90928

Minimum Expected Frequency - .176  
 Cells with Expected Frequency < 5 - 16 OF 16 (100.0%)

Number of Missing Observations: 166  
 -----

Q20A Why Used Support? by Q16Z Finding Suitable Premises

Page 1 of 1

Q20A	Row Pct Col Pct	Q16Z				Row Total
		Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
Particular	1	66.7		33.3		3
Operational Prob		66.7		16.7		17.6
To Aid Growth	2		28.6	71.4		7
			28.6	83.3		41.2
Training Support	3		100.0			3
			42.9			17.6
Other	4	25.0	50.0		25.0	4
		33.3	28.6		100.0	23.5
Column Total		3 17.6	7 41.2	6 35.3	1 5.9	17 100.0

Chi-Square	Value	DF	Significance
Pearson	18.38776	9	.03097
Likelihood Ratio	20.48110	9	.01516
Mantel-Haenszel test for linear association	.03186	1	.85833

Minimum Expected Frequency - .176  
 Cells with Expected Frequency < 5 - 16 OF 16 (100.0%)

Number of Missing Observations: 166

Q20A Why Used Support? by CLU2\_1 Ward Method all q16 2cl sol

Page 1 of 1

Q20A	Row Pct Col Pct	CLU2_1		Row Total
		1	2	
Particular	1		100.0	3
Operational Prob			23.1	17.6
To Aid Growth	2	57.1	42.9	7
		100.0	23.1	41.2
Training Support	3		100.0	3
			23.1	17.6
Other	4		100.0	4
			30.8	23.5
Column Total		4	13	17
		23.5	76.5	100.0

Chi-Square	Value	DF	Significance
Pearson	7.47253	3	.05827
Likelihood Ratio	8.98950	3	.02943
Mantel-Haenszel test for linear association	1.01638	1	.31338
Minimum Expected Frequency -	.706		
Cells with Expected Frequency < 5 -	7 OF	8 ( 87.5%)	

Number of Missing Observations: 166

Q20A Why Used Support? by RECOQ9A none

Page 1 of 1

Q20A	Row Pct Col Pct	RECOQ9A		Row Total
		yes	no	
Particular	1		100.0	3
Operational Prob			20.0	17.6
To Aid Growth	2		100.0	7
			46.7	41.2
Training Support	3		100.0	3
			20.0	17.6
Other	4	50.0	50.0	4
		100.0	13.3	23.5
Column Total		2	15	17
		11.8	88.2	100.0

Chi-Square	Value	DF	Significance
Pearson	7.36667	3	.06108
Likelihood Ratio	6.76998	3	.07960
Mantel-Haenszel test for linear association	4.65204	1	.03102
Minimum Expected Frequency -	.353		
Cells with Expected Frequency < 5 -	7 OF	8 ( 87.5%)	

Number of Missing Observations: 166



### APPENDIX 3 - (i) Variations in Reasons for Non-Use

RECO2Q21 reasons for non use by Q13 PROFIT PERFORMANCE

Page 1 of 1

		Q13					Row
Row Pct	Col Pct	Very Satisfactory 1	Satisfactory 2	Neither Satisfactory 3	Unsatisfactory 4	Very Unsatisfactory 5	Total
RECO2Q21	1.00	11.1	55.6	11.1	16.7	5.6	18
	used other source	6.9	11.5	7.7	21.4	11.1	10.9
	2.00		33.3	11.1	22.2	33.3	9
	poor opinion		3.4	3.8	14.3	33.3	5.5
	3.00	25.6	48.8	18.6	7.0		43
	no problems/need	37.9	24.1	30.8	21.4		26.1
	4.00	15.8	57.9	10.5	5.3	10.5	19
	start up enough	10.3	12.6	7.7	7.1	22.2	11.5
	5.00	27.8	44.4	16.7	5.6	5.6	18
	not aware	17.2	9.2	11.5	7.1	11.1	10.9
	6.00	22.2	33.3	11.1	22.2	11.1	9
	no time	6.9	3.4	3.8	14.3	11.1	5.5
	7.00	12.2	63.3	18.4	4.1	2.0	49
	other(2+ reasons)	20.7	35.6	34.6	14.3	11.1	29.7
	Column Total	29	87	26	14	9	165
		17.6	52.7	15.8	8.5	5.5	100.0

Chi-Square	Value	DF	Significance
Pearson	34.35807	24	.07850
Likelihood Ratio	30.11537	24	.18096
Mantel-Haenszel test for linear association	1.56370	1	.21112

Minimum Expected Frequency - .491  
 Cells with Expected Frequency < 5 - 26 OF 35 ( 74.3%)

Number of Missing Observations: 18

RECO2Q21 reasons for non use by Q16I Understanding Your Market

Page 1 of 1

		Q16I					Row
Row Pct	Col Pct	Very Adequately 1	Adequately 2	Neither 3	Inadequately 4	Very Inadequately 5	Total
RECO2Q21	1.00	5.6	61.1	33.3			18
	used other source	3.3	12.9	18.2			11.0
	2.00		12.5	62.5	25.0		8
	poor opinion		1.2	15.2	20.0		4.9
	3.00	19.0	54.8	21.4	2.4	2.4	42
	no problems/need	26.7	27.1	27.3	10.0	20.0	25.8
	4.00	26.3	63.2	5.3		5.3	19
	start up enough	16.7	14.1	3.0		20.0	11.7
	5.00	22.2	33.3	33.3	11.1		18
	not aware	13.3	7.1	18.2	20.0		11.0
	6.00	11.1	22.2	44.4	22.2		9
	no time	3.3	2.4	12.1	20.0		5.5
	7.00	22.4	61.2	4.1	6.1	6.1	49
	other(2+ reasons)	36.7	35.3	6.1	30.0	60.0	30.1
	Column Total	30	85	33	10	5	163
		18.4	52.1	20.2	6.1	3.1	100.0

Chi-Square	Value	DF	Significance
Pearson	48.34973	24	.00228
Likelihood Ratio	52.33517	24	.00071
Mantel-Haenszel test for linear association	.51236	1	.47412

Minimum Expected Frequency - .245  
 Cells with Expected Frequency < 5 - 26 OF 35 ( 74.3%)

Number of Missing Observations: 20

RECO2Q21 reasons for non use by Q16P Doing Accounts & Managing Finance

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16P					Row Total
		Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00		41.2	41.2	17.6			17
used other source		14.9	8.3	13.6			10.5
2.00		12.5	12.5	62.5	12.5		8
poor opinion		2.1	1.2	22.7	20.0		4.9
3.00		35.7	52.4	11.9			42
no problems/need		31.9	26.2	22.7			25.9
4.00		21.1	68.4	5.3		5.3	19
start up enough		8.5	15.5	4.5		25.0	11.7
5.00			72.2	16.7	11.1		18
not aware			15.5	13.6	40.0		11.1
6.00		44.4	22.2	22.2	11.1		9
no time		8.5	2.4	9.1	20.0		5.6
7.00		32.7	53.1	6.1	2.0	6.1	49
other(2+ reasons		34.0	31.0	13.6	20.0	75.0	30.2
Column Total		47 29.0	84 51.9	22 13.6	5 3.1	4 2.5	162 100.0

Chi-Square	Value	DF	Significance
Pearson	49.68715	24	.00155
Likelihood Ratio	50.75246	24	.00113
Mantel-Haenszel test for linear association	.28652	1	.59246

Minimum Expected Frequency - .198  
Cells with Expected Frequency < 5 - 24 OF 35 ( 68.6%)

Number of Missing Observations: 21

RECO2Q21 reasons for non use by CLU2\_1 Ward Method all q16 2cl sol

Page 1 of 1

RECO2Q21	Row Pct Col Pct	CLU2_1		Row Total
		1	2	
1.00		5.9	94.1	17
used other source		4.2	11.6	10.5
2.00		37.5	62.5	8
poor opinion		12.5	3.6	4.9
3.00		11.9	88.1	42
no problems/need		20.8	26.8	25.9
4.00		5.3	94.7	19
start up enough		4.2	13.0	11.7
5.00		33.3	66.7	18
not aware		25.0	8.7	11.1
6.00		11.1	88.9	9
no time		4.2	5.8	5.6
7.00		14.3	85.7	49
other(2+ reasons		29.2	30.4	30.2
Column Total		24 14.8	138 85.2	162 100.0

Chi-Square	Value	DF	Significance
Pearson	10.99244	6	.08861
Likelihood Ratio	9.83906	6	.13160
Mantel-Haenszel test for linear association	.18649	1	.66585

Minimum Expected Frequency - 1.185  
Cells with Expected Frequency < 5 - 5 OF 14 ( 35.7%)

Number of Missing Observations: 21

RECO2Q21 reasons for non use by Q16K Communicating With Customers

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16K					Row Total
		Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00		11.1	44.4	27.8	16.7		18
used other source	7.7	10.3	13.9	16.7			11.0
2.00			25.0	62.5	12.5		8
poor opinion			2.6	13.9	5.6		4.9
3.00		23.8	45.2	21.4	7.1	2.4	42
no problems/need	38.5	24.4	25.0	16.7	20.0		25.8
4.00		5.3	57.9	26.3		10.5	19
start up enough	3.8	14.1	13.9			40.0	11.7
5.00		5.6	44.4	16.7	33.3		18
not aware	3.8	10.3	8.3	33.3			11.0
6.00		22.2	44.4	11.1	22.2		9
no time	7.7	5.1	2.8	11.1			5.5
7.00		20.4	53.1	16.3	6.1	4.1	49
other(2+ reasons)	38.5	33.3	22.2	16.7	40.0		30.1
Column Total		26 16.0	78 47.9	36 22.1	18 11.0	5 3.1	163 100.0

Chi-Square	Value	DF	Significance
Pearson	34.80762	24	.07130
Likelihood Ratio	34.56152	24	.07517
Mantel-Haenszel test for linear association	.96883	1	.32497

Minimum Expected Frequency - .245  
Cells with Expected Frequency < 5 - 25 OF 35 ( 71.4%)

Number of Missing Observations: 20

RECO2Q21 reasons for non use by Q16D Developing New Methods of Production

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16D					Row Total
		Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00			22.2	72.2	5.6		18
used other source			11.8	13.0	5.3		11.0
2.00			12.5	62.5	25.0		8
poor opinion			2.9	5.0	10.5		4.9
3.00			19.0	66.7	11.9	2.4	42
no problems/need			23.5	28.0	26.3	16.7	25.8
4.00			21.1	78.9			19
start up enough			11.8	15.0			11.7
5.00			11.1	55.6	22.2	11.1	18
not aware			5.9	10.0	21.1	33.3	11.0
6.00		22.2	22.2	33.3	22.2		9
no time	50.0	5.9	3.0	10.5			5.5
7.00		4.1	26.5	53.1	10.2	6.1	49
other(2+ reasons)	50.0	38.2	26.0	26.3	50.0		30.1
Column Total		4 2.5	34 20.9	100 61.3	19 11.7	6 3.7	163 100.0

Chi-Square	Value	DF	Significance
Pearson	35.03342	24	.06791
Likelihood Ratio	31.18845	24	.14842
Mantel-Haenszel test for linear association	.13034	1	.71808

Minimum Expected Frequency - .196  
Cells with Expected Frequency < 5 - 26 OF 35 ( 74.3%)

Number of Missing Observations: 20

RECO2Q21 reasons for non use by Q16C Developing New Products/Services

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16C					Row Total
		Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00 used other source			27.8 9.4	61.1 13.8	11.1 11.1		18 11.0
2.00 poor opinion			12.5 1.9	62.5 6.3	25.0 11.1		8 4.9
3.00 no problems/need	4.8 33.3	35.7 28.3	54.8 28.8	2.4 5.6	2.4 16.7		42 25.8
4.00 start up enough		36.8 13.2	63.2 15.0				19 11.7
5.00 not aware		22.2 7.5	50.0 11.3	22.2 22.2	5.6 16.7		18 11.0
6.00 no time	22.2 33.3	22.2 3.8	22.2 2.5	33.3 16.7			9 5.5
7.00 other(2+ reasons)	4.1 33.3	38.8 35.8	36.7 22.5	12.2 33.3	8.2 66.7		49 30.1
Column Total	6 3.7	53 32.5	80 49.1	18 11.0	6 3.7		163 100.0

Chi-Square	Value	DF	Significance
Pearson	35.95684	24	.05542
Likelihood Ratio	36.91383	24	.04463
Mantel-Haenszel test for linear association	.10896	1	.74133

Minimum Expected Frequency - .294  
 Cells with Expected Frequency < 5 - 24 OF 35 ( 68.6%)

Number of Missing Observations: 20

RECO2Q21 reasons for non use by Q16AI Maintaining Your Motivation

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16AI					Row Total
		Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
1.00 used other source		11.8 12.5	23.5 7.4	58.8 18.5	5.9 4.8		17 10.5
2.00 poor opinion				37.5 5.6	12.5 4.8	50.0 23.5	8 4.9
3.00 no problems/need	11.9 31.3	35.7 27.8	33.3 25.9	9.5 19.0	9.5 23.5		42 25.9
4.00 start up enough	5.3 6.3	42.1 14.8	31.6 11.1	10.5 9.5	10.5 11.8		19 11.7
5.00 not aware	5.6 6.3	22.2 7.4	33.3 11.1	33.3 28.6	5.6 5.9		18 11.1
6.00 no time	11.1 6.3	33.3 5.6	11.1 1.9	33.3 14.3	11.1 5.9		9 5.6
7.00 other(2+ reasons)	12.2 37.5	40.8 37.0	28.6 25.9	8.2 19.0	10.2 29.4		49 30.2
Column Total	16 9.9	54 33.3	54 33.3	21 13.0	17 10.5		162 100.0

Chi-Square	Value	DF	Significance
Pearson	37.05275	24	.04323
Likelihood Ratio	34.39246	24	.07793
Mantel-Haenszel test for linear association	.55495	1	.45630

Minimum Expected Frequency - .790  
 Cells with Expected Frequency < 5 - 22 OF 35 ( 62.9%)

Number of Missing Observations: 21

RECO2Q21 reasons for non use by Q16AF Understanding Sector Specific Problems

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16AF					Row Total
		Very Ade quately 1	Adequate ly Adde 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
used other source	1.00	11.8 14.3	23.5 9.1	41.2 11.3	17.6 10.3	5.9 7.7	17 10.5
poor opinion	2.00		37.5 6.8	25.0 3.2		37.5 23.1	8 4.9
no problems/need	3.00	14.3 42.9	28.6 27.3	40.5 27.4	14.3 20.7	2.4 7.7	42 25.9
start up enough	4.00		47.4 20.5	42.1 12.9	5.3 3.4	5.3 7.7	19 11.7
not aware	5.00		11.1 4.5	27.8 8.1	50.0 31.0	11.1 15.4	18 11.1
no time	6.00	11.1 7.1	22.2 4.5	44.4 6.5	11.1 3.4	11.1 7.7	9 5.6
other(2+ reasons)	7.00	10.2 35.7	24.5 27.3	38.8 30.6	18.4 31.0	8.2 30.8	49 30.2
Column Total		14 8.6	44 27.2	62 38.3	29 17.9	13 8.0	162 100.0

Chi-Square	Value	DF	Significance
Pearson	37.13503	24	.04242
Likelihood Ratio	36.02476	24	.05458
Mantel-Haenszel test for linear association	.56288	1	.45310

Minimum Expected Frequency - .642  
Cells with Expected Frequency < 5 - 25 OF 35 ( 71.4%)

Number of Missing Observations: 21

RECO2Q21 reasons for non use by Q16AB Retrieving Debts from Customers

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q16AB					Row Total
		Very Ade quately 1	Adequate ly Adde 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
used other source	1.00	5.9 16.7	41.2 13.0	41.2 10.8	5.9 4.5	5.9 6.7	17 10.5
poor opinion	2.00	12.5 16.7	12.5 1.9	37.5 4.6	12.5 4.5	25.0 13.3	8 4.9
no problems/need	3.00		45.2 35.2	35.7 23.1	4.8 9.1	14.3 40.0	42 25.9
start up enough	4.00		26.3 9.3	63.2 18.5	5.3 4.5	5.3 6.7	19 11.7
not aware	5.00		16.7 5.6	44.4 12.3	38.9 31.8		18 11.1
no time	6.00	11.1 16.7	44.4 7.4	11.1 1.5	22.2 9.1	11.1 6.7	9 5.6
other(2+ reasons)	7.00	6.1 50.0	30.6 27.8	38.8 29.2	16.3 36.4	8.2 26.7	49 30.2
Column Total		6 3.7	54 33.3	65 40.1	22 13.6	15 9.3	162 100.0

Chi-Square	Value	DF	Significance
Pearson	35.98068	24	.05512
Likelihood Ratio	37.73452	24	.03690
Mantel-Haenszel test for linear association	.15920	1	.68989

Minimum Expected Frequency - .296  
Cells with Expected Frequency < 5 - 23 OF 35 ( 65.7%)

Number of Missing Observations: 21

RECO2Q21 reasons for non use by Q10 SEX

Page 1 of 1

RECO2Q21	Row Pct Col Pct	Q10		Row Total
		Male	Female	
		1	2	
1.00 used other source		66.7 10.3	33.3 12.8	18 11.0
2.00 poor opinion		71.4 4.3	28.6 4.3	7 4.3
3.00 no problems/need		88.4 32.8	11.6 10.6	43 26.4
4.00 start up enough		68.4 11.2	31.6 12.8	19 11.7
5.00 not aware		66.7 10.3	33.3 12.8	18 11.0
6.00 no time		88.9 6.9	11.1 2.1	9 5.5
7.00 other(2+ reasons)		57.1 24.1	42.9 44.7	49 30.1
Column Total		116 71.2	47 28.8	163 100.0

Chi-Square	Value	DF	Significance
Pearson	12.70227	6	.04802
Likelihood Ratio	13.79583	6	.03200
Mantel-Haenszel test for linear association	3.75716	1	.05258

Minimum Expected Frequency = 2.018  
Cells with Expected Frequency < 5 = 3 OF 14 ( 21.4%)

Number of Missing Observations: 20

RECO2Q21 reasons for non use by GROW actual growth

Page 1 of 1

RECO2Q21	Row Pct Col Pct	GROW			Row Total
		increase d	static	decrease d	
		1	2	3	
1.00 used other source		16.7 10.0	83.3 11.5		18 11.0
2.00 poor opinion		11.1 3.3	88.9 6.1		9 5.5
3.00 no problems/need		16.3 23.3	83.7 27.5		43 26.2
4.00 start up enough		5.6 3.3	94.4 13.0		18 11.0
5.00 not aware		16.7 10.0	83.3 11.5		18 11.0
6.00 no time		55.6 16.7	22.2 1.5	22.2 66.7	9 5.5
7.00 other(2+ reasons)		20.4 33.3	77.6 29.0	2.0 33.3	49 29.9
Column Total		30 18.3	131 79.9	3 1.8	164 100.0

Chi-Square	Value	DF	Significance
Pearson	35.84239	12	.00034
Likelihood Ratio	23.33973	12	.02498
Mantel-Haenszel test for linear association	.37345	1	.54113

Minimum Expected Frequency = .165  
Cells with Expected Frequency < 5 = 12 OF 21 ( 57.1%)

Number of Missing Observations: 19

**APPENDIX 3 - (j) Variations in Usefulness**

Q20B Support Usefulness by RECOQ9A none

RECOQ9A Page 1 of 1

Q20B	Row Pct Col Pct	RECOQ9A		Row Total
		yes 1.00	no 2.00	
Very Useful	1		100.0 31.3	5 27.8
Useful	2	12.5 50.0	87.5 43.8	8 44.4
Neither	3	100.0 50.0		1 5.6
Not Useful	4		100.0 6.3	1 5.6
Not At All Useful	5		100.0 18.8	3 16.7
	Column Total	2 11.1	16 88.9	18 100.0

Chi-Square	Value	DF	Significance
Pearson	9.14063	4	.05768
Likelihood Ratio	6.52963	4	.16293
Mantel-Haenszel test for linear association	.01378	1	.90657

Minimum Expected Frequency - .111  
Cells with Expected Frequency < 5 - 9 OF 10 ( 90.0%)

Number of Missing Observations: 165

Q20B Support Usefulness by Q13 PROFIT PERFORMANCE

Q13 Page 1 of 1

Q20B	Row Pct Col Pct	Q13					Row Total
		Very Satis factor 1	Satisfac tory 2	Neither Satisfac tory 3	Unsatisf actory 4	Very Uns atisfac tory 5	
Very Useful	1		40.0 25.0	40.0 40.0	20.0 50.0		5 27.8
Useful	2		62.5 62.5	25.0 40.0		12.5 50.0	8 44.4
Neither	3	100.0 100.0					1 5.6
Not Useful	4		100.0 12.5				1 5.6
Not At All Useful	5			33.3 20.0	33.3 50.0	33.3 50.0	3 16.7
	Column Total	1 5.6	8 44.4	5 27.8	2 11.1	2 11.1	18 100.0

Chi-Square	Value	DF	Significance
Pearson	25.88625	16	.05565
Likelihood Ratio	17.59779	16	.34797
Mantel-Haenszel test for linear association	1.34109	1	.24684

Minimum Expected Frequency - .056  
Cells with Expected Frequency < 5 - 25 OF 25 (100.0%)

Number of Missing Observations: 165

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Q20B Support Usefulness by RECOQ2 industry type

Page 1 of 1

		RECOQ2				
Row Pct	Col Pct	retail	Services	Other(in	manufact	Row
		1	2	c touris	uring(in	Total
				3	4	
Q20B						
	1			20.0	80.0	5
Very Useful				20.0	100.0	27.8
	2	12.5	50.0	37.5		8
Useful		33.3	66.7	60.0		44.4
	3	100.0				1
Neither		33.3				5.6
	4		100.0			1
Not Useful			16.7			5.6
	5	33.3	33.3	33.3		3
Not At All Useful		33.3	16.7	20.0		16.7
Column		3	6	5	4	18
Total		16.7	33.3	27.8	22.2	100.0

Chi-Square	Value	DF	Significance
Pearson	21.12000	12	.04865
Likelihood Ratio	21.59113	12	.04237
Mantel-Haenszel test for linear association	5.18687	1	.02276

Minimum Expected Frequency - .167  
 Cells with Expected Frequency < 5 - 20 OF 20 (100.0%)

Number of Missing Observations: 165

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Q20B Support Usefulness by Q16Z Finding Suitable Premises

Page 1 of 1

		Q16Z				
Row Pct	Col Pct	Adequate	Neither	Inadequa	Very Ina	Row
		ly Adde	3	tely add	dequatel	Total
		2		4	5	
Q20B						
	1		80.0	20.0		5
Very Useful			57.1	16.7		27.8
	2	37.5	25.0	37.5		8
Useful		75.0	28.6	50.0		44.4
	3				100.0	1
Neither					100.0	5.6
	4			100.0		1
Not Useful				16.7		5.6
	5	33.3	33.3	33.3		3
Not At All Useful		25.0	14.3	16.7		16.7
Column		4	7	6	1	18
Total		22.2	38.9	33.3	5.6	100.0

Chi-Square	Value	DF	Significance
Pearson	24.90893	12	.01526
Likelihood Ratio	15.30835	12	.22501
Mantel-Haenszel test for linear association	.07892	1	.77876

Minimum Expected Frequency - .056  
 Cells with Expected Frequency < 5 - 20 OF 20 (100.0%)

Number of Missing Observations: 165



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Q20B Support Usefulness by Q16W Acquiring New Technology

Page 1 of 1

		Q16W				
Row Pct	Col Pct	Adequate ly Addre	Neither	Inadequa tely add	Very Ina dequatel	Row Total
		2	3	4	5	
Q20B						
	1	40.0	40.0	20.0		5
Very Useful		66.7	25.0	16.7		27.8
	2	12.5	50.0	37.5		8
Useful		33.3	50.0	50.0		44.4
	3				100.0	1
Neither					100.0	5.6
	4			100.0		1
Not Useful				16.7		5.6
	5		66.7	33.3		3
Not At All Useful			25.0	16.7		16.7
	Column Total	3	8	6	1	18
		16.7	44.4	33.3	5.6	100.0

Chi-Square	Value	DF	Significance
Pearson	22.82500	12	.02925
Likelihood Ratio	12.73221	12	.38880
Mantel-Haenszel test for linear association	1.56628	1	.21075

Minimum Expected Frequency - .056  
 Cells with Expected Frequency < 5 - 20 OF 20 (100.0%)

Number of Missing Observations: 165

Q20B Support Usefulness by Q16P Doing Accounts & Managing Finance

**APPENDIX 3 - (k) Variations in Use of 'Non-TEC' Schemes**

RECOQ22H none used by RECOQ9K other qualifications

Page 1 of 1

	Row Pct Col Pct	RECOQ9K		Row Total
		yes	no	
		1.00	2.00	
RECOQ22H				
yes		31.0 25.0	69.0 13.6	29 15.8
no		17.5 75.0	82.5 86.4	154 84.2
Column Total		36 19.7	147 80.3	183 100.0

Chi-Square	Value	DF	Significance
Pearson	2.81545	1	.09336
Continuity Correction	2.02583	1	.15464
Likelihood Ratio	2.56487	1	.10926
Mantel-Haenszel test for linear association	2.80006	1	.09426

Minimum Expected Frequency - 5.705

Number of Missing Observations: 0

RECOQ22H none by RECOQ3A Start-Up Employees

Page 1 of 1

	Row Pct Col Pct	RECOQ3A			Row Total
		0	1	2 or mor e	
		0	1	2	
RECOQ22H					
yes		35.7 9.2	50.0 24.1	14.3 26.7	28 15.4
no		64.3 90.8	28.6 75.9	7.1 73.3	154 84.6
Column Total		109 59.9	58 31.9	15 8.2	182 100.0

Chi-Square	Value	DF	Significance
Pearson	8.10982	2	.01734
Likelihood Ratio	7.93862	2	.01889
Mantel-Haenszel test for linear association	7.24949	1	.00709

Minimum Expected Frequency - 2.308  
Cells with Expected Frequency < 5 - 1 OF 6 ( 16.7%)

Number of Missing Observations: 1

RECOQ22H none by RECOQ3B Now Employees

Page 1 of 1

	Row Pct Col Pct	RECOQ3B			Row Total
		0	1	2 or mor e	
		0	1	2	
RECOQ22H					
yes		22.2 6.7	63.0 27.4	14.8 14.3	27 15.1
no		54.6 93.3	29.6 72.6	15.8 85.7	152 84.9
Column Total		89 49.7	62 34.6	28 15.6	179 100.0

Chi-Square	Value	DF	Significance
Pearson	12.21514	2	.00223
Likelihood Ratio	12.09833	2	.00236
Mantel-Haenszel test for linear association	4.18442	1	.04080

Minimum Expected Frequency - 4.223  
Cells with Expected Frequency < 5 - 1 OF 6 ( 16.7%)

Number of Missing Observations: 4

RECOQ22G other by RECOQ9C alevels

Page 1 of 1

Row Pct Col Pct		RECOQ9C		Row Total
		yes	no	
		1.00	2.00	
RECOQ22G	yes	50.0 20.8	50.0 7.4	20 10.9
	no	23.3 79.2	76.7 92.6	163 89.1
Column Total		48 26.2	135 73.8	183 100.0

Chi-Square	Value	DF	Significance
Pearson	6.55688	1	.01045
Continuity Correction	5.25020	1	.02194
Likelihood Ratio	5.85897	1	.01550
Mantel-Haenszel test for linear association	6.52105	1	.01066

Minimum Expected Frequency - 5.246

Number of Missing Observations: 0

RECOQ22D accountant by RECOQ9C alevels

Page 1 of 1

Row Pct Col Pct		RECOQ9C		Row Total
		yes	no	
		1.00	2.00	
RECOQ22D	yes	18.9 29.2	81.1 44.4	74 40.4
	no	31.2 70.8	68.8 55.6	109 59.6
Column Total		48 26.2	135 73.8	183 100.0

Chi-Square	Value	DF	Significance
Pearson	3.43153	1	.06396
Continuity Correction	2.82653	1	.09272
Likelihood Ratio	3.52766	1	.06035
Mantel-Haenszel test for linear association	3.41278	1	.06469

Minimum Expected Frequency - 19.410

Number of Missing Observations: 0

RECOQ22D accountant by RECOQ9K other

Page 1 of 1

Row Pct Col Pct		RECOQ9K		Row Total
		yes	no	
RECOQ22D	yes	27.0 55.6	73.0 36.7	74 40.4
	no	14.7 44.4	85.3 63.3	109 59.6
Column Total		36 19.7	147 80.3	183 100.0

Chi-Square	Value	DF	Significance
Pearson	4.25296	1	.03918
Continuity Correction	3.50744	1	.06109
Likelihood Ratio	4.18183	1	.04086
Mantel-Haenszel test for linear association	4.22972	1	.03972

Minimum Expected Frequency - 14.557

Number of Missing Observations: 0

RECOQ22D accountant by RECOQ4 Company Ownership

RECOQ4 Page 1 of 1

Row Pct Col Pct	Sole Tra Other		Row Total	
	der	der		
	1	2		
RECOQ22D	yes	77.0 37.0	23.0 60.7	74 40.7
	no	89.8 63.0	10.2 39.3	108 59.3
Column Total	154 84.6	28 15.4	182 100.0	

Chi-Square	Value	DF	Significance
Pearson	5.51619	1	.01884
Continuity Correction	4.57759	1	.03239
Likelihood Ratio	5.41633	1	.01995
Mantel-Haenszel test for linear association	5.48588	1	.01917

Minimum Expected Frequency - 11.385

Number of Missing Observations: 1

RECOQ22C friends/networks by RECOQ1 Company Age 2

RECOQ1 Page 1 of 1

Row Pct Col Pct	0-12 mon	13-18 mo	19-24 mo	over 24	Row Total	
	ths	nths	nths	months		
	1	2	3	4		
RECOQ22C	yes	3.0 30.0	30.0 69.8	32.0 64.0	35.0 44.9	100 55.2
	no	8.6 70.0	16.0 30.2	22.2 36.0	53.1 55.1	81 44.8
Column Total	10 5.5	43 23.8	50 27.6	78 43.1	181 100.0	

Chi-Square	Value	DF	Significance
Pearson	11.19028	3	.01074
Likelihood Ratio	11.35033	3	.00997
Mantel-Haenszel test for linear association	2.17162	1	.14058

Minimum Expected Frequency - 4.475  
Cells with Expected Frequency < 5 - 1 OF 8 ( 12.5%)

Number of Missing Observations: 2

RECOQ22C friends/networks by Q13 PROFIT PERFORMANCE

Q13 Page 1 of 1

Row Pct Col Pct	Very Satis	Satisfac	Neither	Unsatisf	Very Uns	Row Total	
	factor	tory	Satisfac	actory	atisfact		
	1	2	3	4	5		
RECOQ22C	yes	11.0 36.7	57.0 60.0	20.0 64.5	8.0 50.0	4.0 36.4	100 54.6
	no	22.9 63.3	45.8 40.0	13.3 35.5	9.6 50.0	8.4 63.6	83 45.4
Column Total	30 16.4	95 51.9	31 16.9	16 8.7	11 6.0	183 100.0	

Chi-Square	Value	DF	Significance
Pearson	7.85295	4	.09712
Likelihood Ratio	7.88314	4	.09595
Mantel-Haenszel test for linear association	.01750	1	.89475

Minimum Expected Frequency - 4.989  
Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 0

RECOQ22C friends/networks by Q10 SEX

Page 1 of 1

Row Pct Col Pct	Q10		Row Total
	Male 1	Female 2	
RECOQ22C			
yes	64.6 49.6	35.4 67.3	99 54.7
no	79.3 50.4	20.7 32.7	82 45.3
Column Total	129 71.3	52 28.7	181 100.0

Chi-Square	Value	DF	Significance
Pearson	4.68315	1	.03046
Continuity Correction	3.99626	1	.04560
Likelihood Ratio	4.77029	1	.02896
Mantel-Haenszel test for linear association	4.65727	1	.03092

Minimum Expected Frequency - 23.558

Number of Missing Observations: 2

RECOQ22H none by Q16AF Understanding Sector Specific Problems

Page 1 of 1

Row Pct Col Pct	Q16AF					Row Total
	Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
RECOQ22H						
yes	13.8 28.6	20.7 12.0	24.1 10.4	20.7 18.2	20.7 37.5	29 16.1
no	6.6 71.4	29.1 88.0	39.7 89.6	17.9 81.8	6.6 62.5	151 83.9
Column Total	14 7.8	50 27.8	67 37.2	33 18.3	16 8.9	180 100.0

Chi-Square	Value	DF	Significance
Pearson	9.34404	4	.05305
Likelihood Ratio	8.17081	4	.08552
Mantel-Haenszel test for linear association	1.35250	1	.24484

Minimum Expected Frequency - 2.256

Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

RECOQ22D accountant by Q16M Generating Funds Internally

Page 1 of 1

Row Pct Col Pct	Q16M					Row Total
	Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
RECOQ22D						
yes	4.2 42.9	12.5 23.1	58.3 47.7	20.8 46.9	4.2 20.0	72 39.8
no	3.7 57.1	27.5 76.9	42.2 52.3	15.6 53.1	11.0 80.0	109 60.2
Column Total	7 3.9	39 21.5	88 48.6	32 17.7	15 8.3	181 100.0

Chi-Square	Value	DF	Significance
Pearson	10.01222	4	.04022
Likelihood Ratio	10.54510	4	.03218
Mantel-Haenszel test for linear association	.15332	1	.69538

Minimum Expected Frequency - 2.785

Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 2

RECOQ22D accountant by Q16AG Coping With Pressure

Page 1 of 1

Row Pct Col Pct	Q16AG					Row Total
	Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
yes	9.7 70.0	18.1 30.2	43.1 39.7	25.0 56.3	4.2 17.6	72 40.0
no	2.8 30.0	27.8 69.8	43.5 60.3	13.0 43.8	13.0 82.4	108 60.0
Column Total	10 5.6	43 23.9	78 43.3	32 17.8	17 9.4	180 100.0

Chi-Square	Value	DF	Significance
Pearson	12.52149	4	.01387
Likelihood Ratio	12.83465	4	.01211
Mantel-Haenszel test for linear association	.39952	1	.52734

Minimum Expected Frequency - 4.000  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 3

RECOQ22D accountant by Q16AH Creating a Business Culture

Page 1 of 1

Row Pct Col Pct	Q16AH					Row Total
	Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
yes	2.8 50.0	13.9 25.6	56.9 46.6	20.8 48.4	5.6 22.2	72 40.0
no	1.9 50.0	26.9 74.4	43.5 53.4	14.8 51.6	13.0 77.8	108 60.0
Column Total	4 2.2	39 21.7	88 48.9	31 17.2	18 10.0	180 100.0

Chi-Square	Value	DF	Significance
Pearson	8.38887	4	.07833
Likelihood Ratio	8.73929	4	.06796
Mantel-Haenszel test for linear association	.02660	1	.87045

Minimum Expected Frequency - 1.600  
 Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

RECOQ22D accountant by Q16AC Setting Prices

Page 1 of 1

Row Pct Col Pct	Q16AC					Row Total
	Very Ade quately 1	Adequate ly Addre 2	Neither 3	Inadequa tely add 4	Very Ina dequatel 5	
yes	9.7 58.3	33.3 31.2	44.4 50.8	6.9 35.7	5.6 28.6	72 40.0
no	4.6 41.7	49.1 68.8	28.7 49.2	8.3 64.3	9.3 71.4	108 60.0
Column Total	12 6.7	77 42.8	63 35.0	14 7.8	14 7.8	180 100.0

Chi-Square	Value	DF	Significance
Pearson	8.10997	4	.08763
Likelihood Ratio	8.11365	4	.08750
Mantel-Haenszel test for linear association	.04623	1	.82975

Minimum Expected Frequency - 4.800  
 Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 3

RECOQ22C friends/networks by Q16AA Finding the Best Location

Page 1 of 1

		Q16AA					
Row Pct	Col Pct	Very Adequately 1	Adequately 2	Neither 3	Inadequately 4	Very Inadequately 5	Row Total
RECOQ22C	yes	8.2 88.9	17.3 39.5	50.0 55.7	19.4 67.9	5.1 41.7	98 54.4
	no	1.2 11.1	31.7 60.5	47.6 44.3	11.0 32.1	8.5 58.3	82 45.6
	Column Total	9 5.0	43 23.9	88 48.9	28 15.6	12 6.7	180 100.0

Chi-Square	Value	DF	Significance
Pearson	11.03425	4	.02618
Likelihood Ratio	11.79652	4	.01893
Mantel-Haenszel test for linear association	.02101	1	.88474

Minimum Expected Frequency - 4.100  
Cells with Expected Frequency < 5 - 2 OF 10 ( 20.0%)

Number of Missing Observations: 3

RECOQ22A bank by Q16AG Coping With Pressure

Page 1 of 1

		Q16AG					
Row Pct	Col Pct	Very Adequately 1	Adequately 2	Neither 3	Inadequately 4	Very Inadequately 5	Row Total
RECOQ22A	yes	6.5 50.0	18.2 32.6	42.9 42.3	26.0 62.5	6.5 29.4	77 42.8
	no	4.9 50.0	28.2 67.4	43.7 57.7	11.7 37.5	11.7 70.6	103 57.2
	Column Total	10 5.6	43 23.9	78 43.3	32 17.8	17 9.4	180 100.0

Chi-Square	Value	DF	Significance
Pearson	8.38036	4	.07860
Likelihood Ratio	8.42025	4	.07734
Mantel-Haenszel test for linear association	.49401	1	.48214

Minimum Expected Frequency - 4.278  
Cells with Expected Frequency < 5 - 1 OF 10 ( 10.0%)

Number of Missing Observations: 3

## APPENDIX 4



**APPENDIX 4 - (a) Partially Structured Meta-Matrix for Owner-Manager Interviews (summary version)**

INTERVIEW TOPIC	CASE 1	CASE 2	CASE 3
Company Characteristics	<ul style="list-style-type: none"> <li>wholesale patisserie</li> <li>regional coverage</li> <li>turnover doubled each year</li> <li>currently expanding staff beyond existing 2 employees</li> </ul>	<ul style="list-style-type: none"> <li>boat servicing and related retail/leisure services</li> <li>2 staff</li> <li>long term growth dependent on external finance</li> </ul>	<ul style="list-style-type: none"> <li>sells diesel fuel and related products nationwide</li> <li>taken on 1 worker-possible future expansion</li> </ul>
Influences on Growth	<ul style="list-style-type: none"> <li>pro-active sales approach</li> <li>customer care</li> <li>time pressure</li> <li>seasonal trade</li> <li>business rates</li> <li>late payment of bills</li> <li>product quality</li> </ul>	<ul style="list-style-type: none"> <li>undercapitalisation-banks perspective too short term</li> <li>recession-impact on luxury services. Intensified competition</li> <li>motivation</li> <li>bureaucratic interference</li> </ul>	<ul style="list-style-type: none"> <li>ability to sell on non-price advantages</li> <li>past work experience</li> <li>self motivation</li> <li>late payment-cash flow problems</li> <li>diversification-complementary goods</li> </ul>
Start-Up Support Views	<ul style="list-style-type: none"> <li>gave direction and focus made you work</li> <li>not on-site</li> <li>too busy to take full advantage</li> <li>poor on specific practical training</li> </ul>	<ul style="list-style-type: none"> <li>good on basic mechanics of business</li> <li>good staff</li> </ul>	<ul style="list-style-type: none"> <li>grant main benefit good on the nature of self-employment</li> <li>motivated to help oneself already had understanding of many issues covered in training</li> </ul>
Ability of Start-Up to Address Growth Factors	<ul style="list-style-type: none"> <li>have to look elsewhere</li> <li>not individual enough-need to visit to appreciate problems</li> </ul>	<ul style="list-style-type: none"> <li>limited</li> <li>political motive to reduce unemployment, not assist growth</li> </ul>	<ul style="list-style-type: none"> <li>limited coverage of growth issues</li> <li>main benefit-to motivate and get you going</li> </ul>
Awareness of Other Support	<ul style="list-style-type: none"> <li>limited awareness</li> <li>not pro-active enough-too remote and impersonal</li> </ul>	<ul style="list-style-type: none"> <li>well aware, but perception that it covers old ground</li> <li>other support not forthcoming</li> </ul>	<ul style="list-style-type: none"> <li>unable to name any schemes</li> <li>don't think about support</li> </ul>
Use of Other Support	<ul style="list-style-type: none"> <li>little sought-mostly own efforts</li> <li>banks, accountants</li> <li>networks-to improve product, production and customer base</li> </ul>	<ul style="list-style-type: none"> <li>Business Angels-unwilling to help</li> <li>banks-too short term</li> <li>accountants-lack imagination needed in business</li> <li>networks-too competitive</li> </ul>	<ul style="list-style-type: none"> <li>accountant</li> <li>networks-industry too competitive</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>regular on-site visits-to give a long term perspective. OMs too involved/narrow in focus</li> </ul>	<ul style="list-style-type: none"> <li>computer loan scheme-to save time and improve control and planning</li> <li>evaluative health checks</li> <li>mentor scheme-give experience, hand-holding and possibly investment</li> <li>specialist practical courses eg. for mechanics</li> </ul>	<ul style="list-style-type: none"> <li>refresher courses to meet developing needs</li> <li>2 way delivery-OM led plus more proactive providers</li> <li>reasonable prices-use dependent on price</li> </ul>

INTERVIEW TOPIC	CASE 4	CASE 5	CASE 6
Company Characteristics	<ul style="list-style-type: none"> <li>mechanical and electrical contractor regional and some national</li> <li>currently employing 15, starting from 2.</li> </ul>	<ul style="list-style-type: none"> <li>fabrication company</li> <li>3 staff + 3 partners</li> <li>steady growth and diversification. Good future prospects</li> </ul>	<ul style="list-style-type: none"> <li>investigations agency</li> <li>insurance debt recovery nationwide</li> <li>rapid but uneven growth</li> <li>12 full time, 1 part time, starting from OM only</li> </ul>
Influences on Growth	<ul style="list-style-type: none"> <li>competition and market factors</li> <li>location and spatial diversification</li> <li>personal drive</li> <li>previous work experience</li> <li>bureaucracy-business rates</li> <li>late payment of bills-cash flow problems</li> </ul>	<ul style="list-style-type: none"> <li>successful growth of main customer</li> <li>limited local competition -niche</li> <li>recession-little impact, grown throughout</li> </ul>	<ul style="list-style-type: none"> <li>customer power-hard to secure long term contracts</li> <li>personality of OM and key staff-personal business</li> <li>OM ambition</li> <li>lack of assistance</li> <li>limited national competition</li> <li>cost of taking on good staff limits further growth</li> <li>limited time to pursue growth opportunities</li> </ul>
Start-Up Support Views	<ul style="list-style-type: none"> <li>useful for banking arrangements</li> <li>variable staff quality</li> <li>honest on nature of business ownership</li> </ul>	<ul style="list-style-type: none"> <li>grant useful</li> <li>good support from staff</li> </ul>	<ul style="list-style-type: none"> <li>grant -peace of mind</li> <li>good on general issues of self-employment</li> <li>not capable of addressing individual concerns</li> <li>some staff less competent</li> </ul>
Ability of Start-Up to Address Growth Factors	<ul style="list-style-type: none"> <li>difficult to address through support</li> <li>comes down to the individual, his drive and experience</li> </ul>	<ul style="list-style-type: none"> <li>did not help with growth</li> <li>growth occurred through own experience-advice not needed</li> </ul>	<ul style="list-style-type: none"> <li>limited beyond basic issues</li> <li>not on-going-post start-up assessments inadequate</li> <li>left to grow on own</li> </ul>
Awareness of Other Support	<ul style="list-style-type: none"> <li>perception that there is none</li> <li>cast you afloat then set you adrift</li> </ul>	<ul style="list-style-type: none"> <li>made well aware by start-up provider</li> </ul>	<ul style="list-style-type: none"> <li>carried out own research</li> <li>information on support not forthcoming</li> <li>perception that little help is available</li> </ul>
Use of Other Support	<ul style="list-style-type: none"> <li>banks too short term</li> <li>accountants take over control-loss of independence, a key start-up reason</li> <li>networks-asking advice gives bad impression and people lose confidence</li> </ul>	<ul style="list-style-type: none"> <li>no TEC support used</li> <li>banks-business advisor useful</li> <li>networks-helped to generate new trade</li> </ul>	<ul style="list-style-type: none"> <li>private consultant</li> <li>networks-only if see direct benefit</li> <li>bank-limited interest in funding growth, therefore have to wait longer to grow through own retained profits</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>more long term, on-going help</li> <li>grants and financial advice</li> <li>cheap loans to help with cash flow problems</li> <li>more individual advice on accounts and financial control</li> <li>help to assess long term needs-OMs do not have the time and are too concerned with short term issues</li> </ul>	<ul style="list-style-type: none"> <li>more focus upon non-start-up firms</li> <li>more generous tax concessions</li> <li>overall, support not important because performing well</li> </ul>	<ul style="list-style-type: none"> <li>more feedback/on-going help</li> <li>must be on-site</li> <li>less emphasis on numbers going through schemes-more individual financial assistance</li> <li>help to identify growth needs</li> </ul>

INTERVIEW TOPIC	CASE 7	CASE 8	CASE 9
Company Characteristics	<ul style="list-style-type: none"> <li>stained glass/overlay film production</li> <li>customers-double glazing industry + tourist shops</li> <li>currently employing 1 person in addition to OM</li> </ul>	<ul style="list-style-type: none"> <li>retail grocery/deli.</li> <li>local market</li> <li>substantial turnover growth over 3 years</li> <li>staff seasonal variation - 2 to 6</li> </ul>	<ul style="list-style-type: none"> <li>mail order gifts + promotional sourcing</li> <li>firm employs 2-major expansion planned soon</li> </ul>
Influences on Growth	<ul style="list-style-type: none"> <li>original/non-conformist approach eg to financing determination/self belief</li> <li>poor bank advice</li> <li>economy/recession</li> <li>market knowledge/gut reaction</li> <li>effective financial management and record keeping</li> </ul>	<ul style="list-style-type: none"> <li>product quality</li> <li>competitive pricing</li> <li>location- busy town centre, local monopoly</li> <li>longer tourist season</li> <li>rent and rate levels</li> </ul>	<ul style="list-style-type: none"> <li>maturity of business-learn from experience</li> <li>economy only to small extent</li> <li>good marketing and financial systems-for discipline and direction</li> </ul>
Start-Up Support Views	<ul style="list-style-type: none"> <li>grant useful</li> <li>good on some financial management issues</li> <li>staff quality variable</li> <li>approach too conformist-not individual</li> <li>no facility for continued support</li> </ul>	<ul style="list-style-type: none"> <li>good on general pitfalls</li> <li>not individual enough</li> </ul>	<ul style="list-style-type: none"> <li>grant useful</li> <li>training very basic</li> <li>advisor lacked experience of sector-not individual enough</li> </ul>
Ability of Start-Up to Address Growth Factors	<ul style="list-style-type: none"> <li>did not help with growth need to learn by doing-little support for this after start-up</li> </ul>	<ul style="list-style-type: none"> <li>did not help with growth</li> <li>external factors influence growth</li> </ul>	<ul style="list-style-type: none"> <li>too basic to address factors</li> <li>not specific to own sector</li> </ul>
Awareness of Other Support	<ul style="list-style-type: none"> <li>aware, but do not like what's on offer from TEC and providers</li> <li>want practical help, not "seminars etc"</li> </ul>	<ul style="list-style-type: none"> <li>perception that none is available</li> </ul>	<ul style="list-style-type: none"> <li>limited other than Business Angels-good idea</li> <li>not enough time to find out</li> </ul>
Use of Other Support	<ul style="list-style-type: none"> <li>banks too short term-not tailored to small business needs</li> <li>Cornwall Economic Development Unit-practical help and information. Fast service, energetic staff</li> <li>networks-member of Business Club, but not practical enough</li> </ul>	<ul style="list-style-type: none"> <li>no TEC support used</li> <li>banks-high charges and unwilling to lend</li> <li>perception that little is available-comes down to own efforts</li> </ul>	<ul style="list-style-type: none"> <li>networks-important source of potential investment. Also get advice from contacts in the industry-of more direct use than TEC support</li> <li>bank-need credit facilities, but banks give poor service</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>less conformist</li> <li>grants and financial help</li> <li>younger staff</li> <li>more practical/individual advice</li> </ul>	<ul style="list-style-type: none"> <li>sources of non-bank finance</li> <li>more individual approach</li> <li>more financial management training</li> <li>help with business rates</li> </ul>	<ul style="list-style-type: none"> <li>hands on workshops &amp; master classes from people in same business</li> <li>referrals to specialists in own sector</li> <li>more individual, with home visits</li> <li>financial assistance</li> <li>lobby banks more</li> </ul>

INTERVIEW TOPIC	CASE 10	CASE 11	CASE 12
Company Characteristics	<ul style="list-style-type: none"> <li>sailing school</li> <li>customers-local and tourists</li> <li>staff varies seasonally, all part-time. Continued expansion &amp; diversification</li> </ul>	<ul style="list-style-type: none"> <li>sail repair, design and manufacturing</li> <li>local market</li> <li>moved to bigger premises and taken over another firm</li> <li>2 staff</li> </ul>	<ul style="list-style-type: none"> <li>shop fitting</li> <li>nationwide</li> <li>5 staff</li> <li>fast growth-looking for partner to facilitate further growth</li> </ul>
Influences on Growth	<ul style="list-style-type: none"> <li>image-'luxury' service enthusiasm and desire to grow</li> <li>external factors and own skills less important</li> </ul>	<ul style="list-style-type: none"> <li>reputation</li> <li>competition-especially during recession-cut back on luxuries</li> <li>competitive strategy-take over</li> <li>personal-new baby</li> <li>premises-physical constraint</li> <li>season</li> <li>rates</li> <li>individual effort</li> </ul>	<ul style="list-style-type: none"> <li>strategy-niche market</li> <li>luck</li> <li>experience/market knowledge</li> <li>ambition and hard work</li> <li>contacts</li> <li>projecting the right image</li> <li>service and work quality</li> </ul>
Start-Up Support Views	<ul style="list-style-type: none"> <li>good emphasis on marketing</li> <li>need on-going support as new issues become important</li> <li>need on-site visits</li> <li>grant and free use of resources most useful</li> </ul>	<ul style="list-style-type: none"> <li>good to get you going</li> <li>individual advice not adequate</li> <li>lack knowledge of sector</li> <li>grant helpful</li> <li>courses too broad and superficial</li> </ul>	<ul style="list-style-type: none"> <li>good on initial viability of proposal</li> <li>build up confidence</li> <li>not specialised or individual enough</li> <li>grant useful</li> </ul>
Ability of Start-Up to Address Growth Factors	<ul style="list-style-type: none"> <li>needs to continue if to address growth factors</li> <li>issues of importance to growth change after you start</li> </ul>	<ul style="list-style-type: none"> <li>best at getting you going</li> <li>staff did not understand the business</li> <li>OMs do not know what their needs will be at start-up, therefore support is less effective then</li> </ul>	<ul style="list-style-type: none"> <li>best at getting you started</li> <li>firm started to grow very quickly therefore no time to take full advantage</li> </ul>
Awareness of Other Support	<ul style="list-style-type: none"> <li>none</li> <li>need to be more proactive</li> </ul>	<ul style="list-style-type: none"> <li>perception that none is available, at least not cheaply</li> </ul>	<ul style="list-style-type: none"> <li>none</li> <li>not enough time to find out/no information</li> </ul>
Use of Other Support	<ul style="list-style-type: none"> <li>avoided use of banks-slow incremental growth to avoid borrowing</li> <li>advice from friends on a very informal basis</li> <li>very limited use of support</li> </ul>	<ul style="list-style-type: none"> <li>sought TEC advice on grants-helpful but nothing available</li> <li>banks-poor service, unwilling to lend</li> <li>DTI consultant-but only one hour, not enough to understand needs</li> <li>networks-only on very informal basis. Too competitive for formal cooperation</li> </ul>	<ul style="list-style-type: none"> <li>networks-direct benefits from trade association. Also informal contacts-but take time to establish</li> <li>bank-good relationship because doing well</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>on-going help</li> <li>labour subsidies to help take on workers</li> <li>visits, not classes-more individual because "we're not a regular business"</li> <li>delivery-evenings and winter (seasonal trade)</li> <li>advice on cheap and effective marketing</li> </ul>	<ul style="list-style-type: none"> <li>more support now, after start-up</li> <li>visits-when needed</li> <li>more in-depth, individual</li> <li>finance eg physical expansion</li> <li>managerial &amp; organisational training to cope with employing staff</li> <li>practical vocational training or grants for it</li> </ul>	<ul style="list-style-type: none"> <li>on-site, out of hours visits</li> <li>focus on specific, individual problems</li> <li>better knowledge of different sectors</li> <li>simplify VAT</li> <li>courses on computers and dealing with people</li> </ul>

INTERVIEW TOPIC	CASE 13	CASE 14
Company Characteristics	<ul style="list-style-type: none"> <li>• bulk road haulage</li> <li>• nationwide</li> <li>• 1 driver employed by couple partnership. Aim to take on third driver and lorry soon.</li> </ul>	<ul style="list-style-type: none"> <li>• residential property managements</li> <li>• local market</li> <li>• 1 employee</li> <li>• future expansion and premises change likely</li> </ul>
Influences on Growth	<ul style="list-style-type: none"> <li>• customer bankruptcy</li> <li>• weather-demand for coal and building materials</li> <li>• previous experience</li> <li>• motivation</li> <li>• main factor constraining growth-lack of initial funds</li> </ul>	<ul style="list-style-type: none"> <li>• word of mouth/reputation</li> <li>• OM personality</li> <li>• personalised, quality service</li> <li>• previous work experience</li> <li>• limited recession effect "fairly recession-proof"</li> </ul>
Start-Up Support Views	<ul style="list-style-type: none"> <li>• some good courses</li> <li>• good staff</li> <li>• good on initial business plan</li> <li>• follow-up element is inadequate</li> </ul>	<ul style="list-style-type: none"> <li>• good to bounce ideas off people</li> <li>• not sector specific enough</li> <li>• too general, not individual</li> </ul>
Ability of Start-Up to Address Growth Factors	<ul style="list-style-type: none"> <li>• best at basics</li> <li>• unable to give specialised, individual advice</li> </ul>	<ul style="list-style-type: none"> <li>• best at getting you going</li> <li>• concentrates on first year-but needs change over time</li> </ul>
Awareness of Other Support	<ul style="list-style-type: none"> <li>• fully aware</li> <li>• perception that it is not relevant to needs</li> </ul>	<ul style="list-style-type: none"> <li>• perception that none is available, at least not at a reasonable cost</li> </ul>
Use of Other Support	<ul style="list-style-type: none"> <li>• business advisor-help with bad debt</li> <li>• bank and accountant-useful advice</li> <li>• people in own sector able to give best advice, but takes a long time to build contacts-role for support providers?</li> </ul>	<ul style="list-style-type: none"> <li>• banks-too expensive</li> <li>• networks-useful contacts with estate agents. Direct benefits from trade association. Business Clubs-talking shop, no direct benefits. Competition prohibits cooperation with other letting agencies</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>• more on-going advice</li> <li>• more localised</li> <li>• more specialised &amp; individual-data -base of contacts in sector with network broker role for providers</li> </ul>	<ul style="list-style-type: none"> <li>• on-going advice-visits to build long-term relationship</li> <li>• problem specific advice</li> <li>• advice on computers, including best buys</li> <li>• data-base of specialist consultants for advice on own specific business</li> <li>• specific information on employing people</li> <li>• financial help</li> <li>• start-up sectoral schemes</li> <li>• central information point</li> </ul>

**APPENDIX 4 - (b) Partially Structured Meta-Matrix for Support Provider Interviews (summary version)**

INTERVIEW TOPIC	CASE 1	CASE 2	CASE 3
Influences on Growth	<ul style="list-style-type: none"> <li>motivation-role of retirement businesses</li> <li>lack of finance-peripheral therefore high risk for banks</li> <li>infrastructure</li> <li>depression-deep rooted and on-going in the area</li> </ul>	<ul style="list-style-type: none"> <li>OM ambition</li> <li>personal qualities more than skills</li> <li>timing and luck</li> <li>reduction of bank service levels</li> </ul>	<ul style="list-style-type: none"> <li>lack of on-going help</li> <li>timing and luck</li> <li>quality of OMs-technical and business skills</li> <li>ambitions</li> </ul>
Start-Up Support and it's Ability to Address Growth Factors	<ul style="list-style-type: none"> <li>positive impact on survival rates, but mechanisms inadequate because of focus on mechanical skills-need "entrepreneurial training"</li> <li>developing new SU scheme with EU funds-will award an NVQ-more motivating</li> <li>problem of contract breaking-prevents planning</li> <li>TEC emphasis on targets dictates quantity, not quality</li> <li>overall, need to protect seed bed as part of creating conditions for growth</li> </ul>	<ul style="list-style-type: none"> <li>depends on individual advisors ability to establish rapport</li> <li>training less important to growth-should treat as the "wholesaling of information"</li> <li>SU does not specifically address growth</li> <li>primarily down to the individual OM</li> <li>SU too prescriptive and programme led-have to look at individual needs if to address growth</li> </ul>	<ul style="list-style-type: none"> <li>improved with PFBC-non-monetary motivation</li> <li>unable to address growth because lack any substantial follow up tool after 18 months eg no 2nd Step</li> </ul>
Role of Further Support	<ul style="list-style-type: none"> <li>despite 'client for life' promise, very limited in terms of concrete programmes and on-going help</li> <li>problem of confusion and awareness</li> <li>Business Link-could be beneficial if sensitive to local needs-but very few 10+ firms. Danger of gap emerging</li> </ul>	<ul style="list-style-type: none"> <li>key difficulty is maintaining contact and rapport-on-going relationship</li> <li>limited awareness of further support</li> <li>lack of direction from banks/accountants</li> <li>Business Link-potentially effective means of improving responsiveness &amp; might allow other agencies to focus on smaller firms. But success dependent on staff</li> </ul>	<ul style="list-style-type: none"> <li>very limited support available</li> <li>lack of awareness of further support</li> <li>Business Link-unlikely to offer any free help. Limited use to young and very small firms</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>continued commitment to SU-thought should replace grants with loans. Provides positive early influence on practice and could help set business plan growth targets</li> <li>improve awareness - face to face contact</li> <li>on-going support eg mentoring scheme</li> <li>focus on skill shortage identification and flexible remedial support</li> <li>inter-agency cooperation + cooperation with banks who could play a more proactive monitoring role</li> <li>infrastructural investment</li> </ul>	<ul style="list-style-type: none"> <li>better awareness through face to face contact and bank referrals</li> <li>more responsive to individual needs-less programme led</li> <li>avoid heavy interventions-emphasise focusing attention</li> <li>less government interference in support provision</li> <li>combine maintenance of client-provider relationship with a reactive service</li> </ul>	<ul style="list-style-type: none"> <li>need to maintain SU commitment using alternative funding - provides control benefits</li> <li>needs to be on-going-attempting to develop an extension to the PFBC scheme</li> <li>combine with more focus on individual needs-counselling</li> <li>more flexible delivery eg evening sessions</li> <li>Business Link will only benefit smaller firms if it can offer free services</li> </ul>

INTERVIEW TOPIC	CASE 4	CASE 5
Influences on Growth	<ul style="list-style-type: none"> <li>• motivation-many do not want growth</li> <li>• forced to grow by market</li> <li>• mechanistic nature of TEC schemes</li> <li>• control and negotiation skills</li> <li>• lack of training culture</li> </ul>	<ul style="list-style-type: none"> <li>• premises-costs</li> <li>• cost of employing people, especially without 2nd Step</li> <li>• ambitions</li> <li>• firms in some sectors often do worse-but not totally predictable</li> <li>• factors vary between firms</li> </ul>
Start-Up Support and it's Ability to Address Growth Factors	<ul style="list-style-type: none"> <li>• PFBC big improvement-more time</li> <li>• main problem-lack of adequate follow-up mechanism</li> <li>• targets emphasise survival-"anti-growth"</li> <li>• TEC scheme -AT eligible</li> <li>• some poor advisors-credibility problem</li> </ul>	<ul style="list-style-type: none"> <li>• in practice, SU follow-up support is not effective-partly because it is often not used</li> <li>• improved quality of people and work under PFBC scheme-could mean better quality start-ups with better growth prospects</li> </ul>
Role of Further Support	<ul style="list-style-type: none"> <li>• Business Link-made it financially difficult for start-up providers to maintain on-going relationship with firms. Aims to target larger firms</li> <li>• growth firms often too busy to get support</li> <li>• BAS advisory support often inadequate</li> <li>• awareness is variable</li> </ul>	<ul style="list-style-type: none"> <li>• Business Link-would appear to exclude very small firms</li> <li>• limited awareness of further support</li> <li>• reluctance to use counselling</li> <li>• growth OMs often too busy</li> </ul>
Support Improvements to Assist Growth	<ul style="list-style-type: none"> <li>• stop SU grants to use on more training and follow-up help. Create more quality start-ups</li> <li>• less mechanistic &amp; proceduralised schemes</li> <li>• on-going support to maintain relationship with client eg mentoring scheme</li> <li>• training levy-create training culture</li> <li>• more TEC funds spent at the sharp end-not on eg. corporate image</li> <li>• remove uncertainty concerning TEC funding and contractual arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• change cultural attitudes to business through education</li> <li>• relief schemes-eg. business rates and 2nd Step</li> <li>• maintain client-provider relationship beyond start-up</li> <li>• address short contracts &amp; funding concerns</li> <li>• "out-reach" firms through visits-gain greater understanding of needs and helps maintain relationship</li> </ul>