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# THE STRATEGIC RESPONSE OF SMALL AND MEDIUM-SIZED ENTERPRISE SECTOR FIRMS TO THE SINGLE EUROPEAN MARKET - A COMPARATIVE STUDY

# BRICKAU, RALF ALEXANDER

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# THE STRATEGIC RESPONSE OF SMALL AND MEDIUM-SIZED ENTERPRISE SECTOR FIRMS TO THE SINGLE EUROPEAN MARKET - A COMPARATIVE STUDY

वसुरागाउँ ४११५, विभि

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DIPL-BETRIEBSW., B.A.(HONS), DIP.M.

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

#### DOCTOR OF PHILOSOPHY

Department of Social Science
Plymouth Business School

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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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05. hay 1994

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#### **ABSTRACT**

# THE STRATEGIC RESPONSE OF SMALL AND MEDIUM-SIZED ENTERPRISE SECTOR FIRMS TO THE SINGLE EUROPEAN MARKET - A COMPARATIVE STUDY

by

#### RALF ALEXANDER BRICKAU

The creation of the post-1992 European Single Market represents a significant change in the business environment confronting firms throughout Europe. Although there is an extensive source of literature available on appropriate strategic responses to the Single Market, very few of these writings contain guidance specifically related to the situation facing small and medium- sized enterprises (SMEs).

The objectives of this study are i) to determine important variables which might influence SME competitiveness, ii) how these may influence SME competitiveness and iii) to identify the formal or informal strategic approaches of SME firms responding to the challenge of the Single Market. To achieve these objectives a comparative study has been undertaken across approximately 200 UK and German SME food & drink processing firms.

The first phase of the research involves a survey aimed at identifying which national, regional and company-specific variables may influence SME sector competitiveness in the Single European Market environment. British firms identify only a small number of crucially important variables whereas German respondents identify a much larger number of variables.

Variables identified as having an important/very important influence on competitiveness are used in the second survey to determine whether these are likely to place firms in a stronger or weaker position on the competitive continuum within the post-1992 environment. UK firms are much more indifferent about competitive advantages and disadvantages compared to their German counterparts. German firms, in contrast, identify a balanced portfolio of disadvantages and advantages.

The third survey is aimed at establishing companies' strategic approaches in terms of planning philosophy, market opportunities and internal capabilities. The survey establishes that German firms have a more formalised planning approach. Furthermore, most German SMEs follow a focused differentiation strategy, emphasising premium product performance with distinctive tangible and intangible benefits. At the same time increased emphasis is placed on making production more cost effective and efficient.

Given that the identified strategic approach by the German firms appears to be the most appropriate strategic option for Northern European SME firms, it may be concluded that the latter appear to be in a stronger competitive position in the post-1992 environment. In contrast, small UK firms appear to reject the idea of getting actively involved in Single Market activities and continue to pursue domestic market issues. Findings indicate that UK respondents show distinctive gaps in their strategic approach. Hence, it can be anticipated that these firms are in a weaker position to counteract threats to their marketplaces from foreign competitors.

A strategic response framework for SME firms is introduced and additional measures are discussed which may assist UK owner/managers to become more involved in formalised strategic planning. This may lead to a more successful strategic response to the challenges of the Single European Market.

#### CHAPTER 1

#### INTRODUCTION

In February 1986 the 12 member states of the European Community signed The European Single Act. The intention was to achieve greater cooperation in a political, social and, most important, economic sense because the European movement had lost much of its momentum since the Treaty of Rome. Thus, the major aim of the Single European Act was to stimulate European economic development by removing physical, technical and fiscal barriers which were seen as the major obstacles impeding the growth and competitiveness of the European economies relative to the US and Pacific Basin (Ohmae 1985; Borchard 1989).

Cecchini's (1988) study on the 'Cost of Non-Europe' documented the economic benefits that could be derived from implementation of the Single Market in areas such as growth, job creation, economies of scale, productivity, healthy competition, labour mobility, and increased customer choice. Subsequent authors endorsed Cecchini's estimates (Lamoriello 1988; Calingaert 1988; Baldwin 1989), although Baimbridge and Burkitt (1991) later issued words of caution and noted that previous estimates may have been exaggerated.

The announcement of the Single Market stimulated a number of articles and studies on how companies could develop a strategic response to the post-1992 economic environment. However, virtually all authors have focussed primarily on the response of larger firms and avoided a detailed look at the situation facing the Small and Medium-sized Enterprise (SME) sector (Axford et al 1991). This is surprising since the OECD (1985) estimated that the SME sector accounts for approximately 95% of all

enterprises in the European Community and provides employment for up to 60% of a country's workforce (e.g. Belgium).

The European Commission recognised the crucial importance of the SME sector's capability to boost European economic revival (Curran 1986) and created the SME Task Force to provide appropriate legal and administrative environments to support the growth of small firms. Surprisingly, this initiative stimulated little interest from the small business community (Tigner 1988). In 1989 the Directorate General XXIII was assigned the assisting of small firms in the European Community by providing owner/managers with access to information concerning the potential impact of new legislation and new market opportunities. Subsequent developments included the creation of European Information Centres and the Business Cooperation Network (Hancock 1991).

The UK South West economy is characterized by the presence of a large number of small to medium sized enterprises (SME) (Gripaios 1989, 1990, 1991) and the Plymouth Business School is actively involved in research and consultancy projects with the regional business community. Hence, it was decided that this research project should focus on the strategic response of UK South West SMEs to the Single Market. Within the UK South West SME sector, the food industry was selected because i) it represents an extremely important component of the South West economy and ii) this sector is likely to be severely impacted by new pan-European legislation and regulations (Farrands 1989; Daems 1990). Furthermore, it was decided to undertake a comparative study of similar size German firms in the food industry in order to complement data on UK firms. Germany was selected because its industry is seen as economically very involved in the Single Market and is considered to be the most likely

source of competition for UK firms both within their domestic markets and on Continental markets (Berger 1991; Davis 1991).

As mentioned, the major thrust of research into possible strategic responses to the Single Market has focussed on large companies. However, small firms cannot easily adopt strategic management techniques utilised by larger firms because these are often too complex to capture small firms' more simplistic business operations (d'Amboise 1986; Langer 1988; Brytting 1990). Hence, an appropriate strategic planning framework for SME firms to effectively respond to the Single Market may possibly differ from those appropriate for larger firms.

The major aim of this study has been to identify crucial elements in devising a strategic response framework for SME firms in the South West. The ultimate aim has been to design a framework that could act as a useful tool to the owner/manager who seeks to improve the competitive position of his/her company in the post-1992 environment. Coverage of issues by chapter to achieve this goal are as follows:-

Chapter 2 reviews the concept of strategic planning, summarises different approaches and management theories. A general strategic planning framework, widely used in larger organisations, is described and corresponding tools are explained. Challenges and requirements for management in the 1990s are outlined. The second part of the chapter provides a detailed examination of the strategic management processes in small and medium-sized firms.

Chapter 3 provides a historic review of the development of the European Community since the second world war, the 1986 Single European Act and the creation of the Single European Market.

Chapter 4 examines relevant strategic management issues in relation to the Single Market. Possible strategic responses proposed by various authors for larger companies are discussed, followed by a review of the literature on the possible implications of the Single Market for the SME sector.

Chapter 5 specifies the research aims that can be derived from the analysis of the available literature. These comprise:-

- i) a comprehensive identification of all crucially important variables considered to influence SME firms' future competitiveness,
- ii) an assessment of the impact of these variables on firms' position on the competitive continuum, and

iii) identification of companies' business objectives, plans, and strategies.

The second part of the chapter describes the research methodology for the study. The method of data collection is outlined and all three questionnaires are discussed in detail.

Chapter 6 presents the findings of all three surveys and describes the application of statistical tests. Emphasis is placed on a comparison of German versus UK South West SMEs and exporting versus non-exporting firms.

Chapter 7 summarises the conclusions that can be drawn from research. Findings indicate UK firms have a limited awareness of crucially important

variables and compared to their German counterparts, an apparent inability to assess the likely impact of important variables on future performance. German firms appear more capable of defining appropriate business objectives, strategies, and plans.

Chapter 8 presents a strategic response framework for Northern European hemisphere SME firms seeking to maintain or enhance their future competitive position. Application of the proposed paradigm indicates the need for UK owner/managers to adopt a more formalised approach to planning, especially in relation to product development, innovation, raising staff competences and actively seeking assistance from external support services.

#### **CHAPTER 2**

# THEORIES AND FRAMEWORKS OF STRATEGIC MANAGEMENT

# 2.1. The need for Strategic Management

Companies move through successive stages of their life cycle. Old problems fade, new ones arise, directions change, and opportunities expand or diminish. Management have the responsibility for balancing the requirement for adaptation and innovation against the equally important need for stability and continuity. For as Confucius said: "If a man takes no thought about what is distant, he will find sorrow near at hand. He who will not worry about what is far off will soon find something else than worry". The same view is expressed by Machiavelli (1513), the famous Italian strategist, in this allegory: "Against the illness which one can see approaching, it is easy to find a cure. But if one waits until it has fully broken out, any medicine comes to late, for the illness has become incurable".

One of the early attempts to explain management theory is by Fayol (1948) who provided prescriptive or normative principles for managers to follow. Many subsequent writings after Fayol are merely collections of ideas and experiences of highly successful top-managers (e.g. Sloan 1963; Iacocca 1984), subjective and only applicable to circumstances facing the authors. As Thurley and Wirdenius (1989) point out, there are two main trains of thought in management theory. One portrays crucial objectives, techniques, systems and frameworks which the authors offer as a prescription for success (e.g. Peters and Waterman 1982; Blake and Mouton 1984). The other perspective on management is an "analysis approach" where analytical frameworks are used to create an

understanding of the situation which then leads to individual solutions. Table 2.1. summarizes these differing types of management theory.

Table 2.1. Types of Management Theory

Туре	Issues discussed	Examples	Comment
A Individual manager	1. Great men biographies	Sloan, Iacocca	Role models as
behaviour			prescriptions
(How to behave as manager)			
	2. Empirical role studies	Carlson, Stewart, Sayles,	Analysis of
		Mintzberg, Burns Lupton	complexity of
		Marples	roles played
	3. Behavioural science	McGregor, Blanchard	Theories about
	prescriptions	Herzberg	how to handle
			people in organisation
Manager-subordinate relations	4. Leadership		Covers different
(How to lead and integrate	- Traits	Bingham	aspects of lead-
people in systems)	- Philosophies	McGregor	ership and inte-
	- Styles	Likert, Blake, Bakke, Macoby	grating
	- Power	Dalton, Cartwright	
	- Behaviour	Whyte, Walker, Sayles	
	- Work tasks	Carlson, Thurley-Wirdenius	
	- Contingent behaviour	Fiedler- Yetton	
Organizational/System design	5. Functions	Fayol, Drucker	Factors which
(Factors in planning systems)			make management
	6. National culture	England, Hofstede	different in different
			organisations
	7. Environmental	Burns-Stalker, Woodward	
· <del>- · · · · · · · · · · · · · · · · · ·</del>	uncertainty	Lawrence-Lorsch	
Management processes	B. Decision-making		Activities and
(What management has to do)	- Rational	Schumpeter, Mintzberg	and processes
	- Satisficing	Simon, Cyen-March	required
	9. Techniques	Drucker, Kepner-Tregoe	
Planning for change	10. Strategic Management	Ansoff, Porter	Critical aspects
(How managers should plan and			to watch in
organize change programmes)	11. Organizational culture/ development	Schein, Bennis	change situations
	12. Change management	Tichy, Beckard, Argyris	

adopted with observations from Thurley and Windenius (1989)

A useful definition of the management process given by Kast and Rosenzweig (1974) is: "Management has a responsibility for maintaining a dynamic equilibrium by diagnosing situations and designing adjustments that are most appropriate for current conditions." Moreover they point out that such a dynamic equilibrium contains four dimensions:-

- 1) Stability
- 2) Continuity
- 3) Adaptability
- 4) Innovativeness

Maintaining this equilibrium, which means managing all four dimensions simultaneously, determines whether an organisation can survive or even grow in a constantly changing environment.

Steers et al (1985) concluded that internal and external change influences the organization. Managers realize the organization's activities, goals, or values are deficient because a noticeable gap in performance has been detected. Strategic management is a process whereby this performance gap can be closed. But as Kamps (1988) points out, strategic planning and budgeting does not predict the future. It can be considered as a tool to fix the process and a mechanism to monitor future performance. Moreover decisions should be based on well defined rational objectives. Steers et al (1985) consider management "as the process of planning, organising, directing and controlling the activities of employees in combination with other organizational resources to accomplish stated organizational goals."

Strategic management is defined by Boseman et al (1986) as being "concerned with determining the future direction of an organization and implementing decisions aimed at achieving the organization's long and short-term objectives."

David (1989) considered strategic management more as "the art and science" of formulating, implementing, and evaluating cross-functional decisions that will enable an organization to achieve its objectives. He divides the process into the three stages of:-

- 1) Strategy formulation
- 2) Strategy implementation
- 3) Strategy evaluation

A very recent synthesis of the various definitions of strategic management is that of Higgins (1991) who suggests that "Management is the creative problem-solving process of planning, organizing, leading, and controlling an organization's resources to achieve its mission and objectives". The flexibility of an organisation to cope with change through the strategic management process in order to adapt (i.e. change is met with change) can be considered a key determinant of corporate performance. It is probably more crucial in the 1990s than ever before (Taylor 1986; Hahn 1991).

The fundamental elements of the basic strategic management process are summarized in Figure 2.1. The *Misson Statement* is a definitive signpost of values and synthesizes what the enterprise 'is', not only from the management point of view but also from the customer's stand-point. A correct definition of the mission is crucial because it specifies direction, purpose and intended achievement (Levitt 1965; Mendelssohn 1990; Gordon-Hall 1990).

10 .

In developing a strategic plan a plethora of *external factors and internal* need to be taken into account. Three commonly used tools to analyse the *external environment* are:

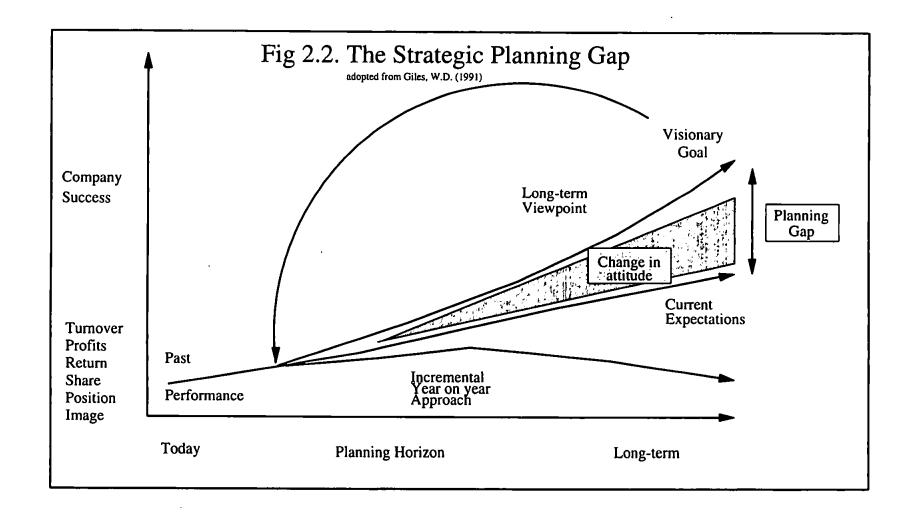
- 1) The PEST analysis (Bourgeois 1980) covering all Political, Economic, Social, and Technical issues affecting the business, recently extended to PEST O(thers) or PEST E(cological) in the light of discussions about the ecological implications of business activities.
- 2) Porter's 5 Forces Model (Porter 1985) which considers the five different sources of competition to a business.
- 3) Value Chain Links (Porter 1985) As an enterprise interacts with its key publics such as customers, suppliers, distributors, etc. it needs a systematic examination of these links.

Two frequently used tools for internal analysis are:

- 1.) Value chain (Porter 1985): This is
  - a) a model of how the enterprise interacts with other businesses (value chains)
  - b) a systematic audit of the enterprise's basic capabilities
  - c) a consideration of the additional needs of the support activities
- 2) McKinsey's 7'S (Peters and Waterman 1982):

This framework enables the company to evaluate those aspects of the organisation which are not covered by the value chain vector.

The findings of the external and internal analysis, possibly summarised in a (S)trengths, (W)eaknesses, (O)pportunities, (T)hreats scenario, provide explicit or implicit assumptions which can be utilized in a gap analysis as



illustrated in Figure 2.2. (Hofer and Schendel 1978; Harrison 1989) or a decision tool, such as the *Ansoff Matrix* (Ansoff 1965).

Portfolio analysis, using the BCG (Boston Consulting Group) or General Electric Matrix (Figure 2.3.), permits evaluation of strategic alternatives (Higgins 1991) as the basis for formulating corporate objectives. Once objectives are set, the final strategy can be defined.

Henzler (1989) outlines 7 major developments for leading German companies affecting the strategic management process in the decades to come:-

- 1) Intensified competition
- 2) Increasing globalization
- 3) Increasing prices of raw materials
- 4) Shorter product life cycles
- 5) During commercialisation greater difficulties in covering expenditure in R&D
- 6) The need to increase flexibility even more within the organization
- 7) Implementation of new forms of inter-industry and international co-operations

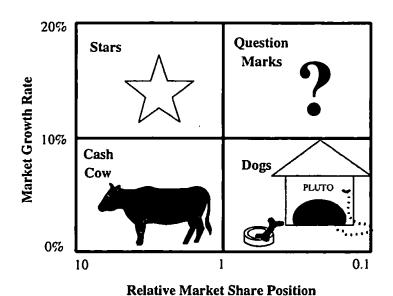
Higgins (1991) additions to Henzler's list with regard to American management are:-

- Changing employee expectations of how they should be managed
- Shift from an industrially based economy to an information-based economy

# Figure 2.3. Portfolio - Analysis

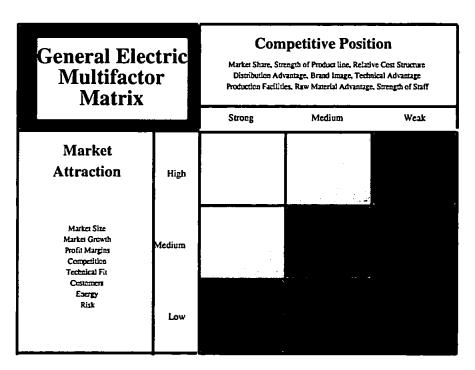
# **Boston Consulting Group Matrix**

Source: adopted from Higgins (1991)



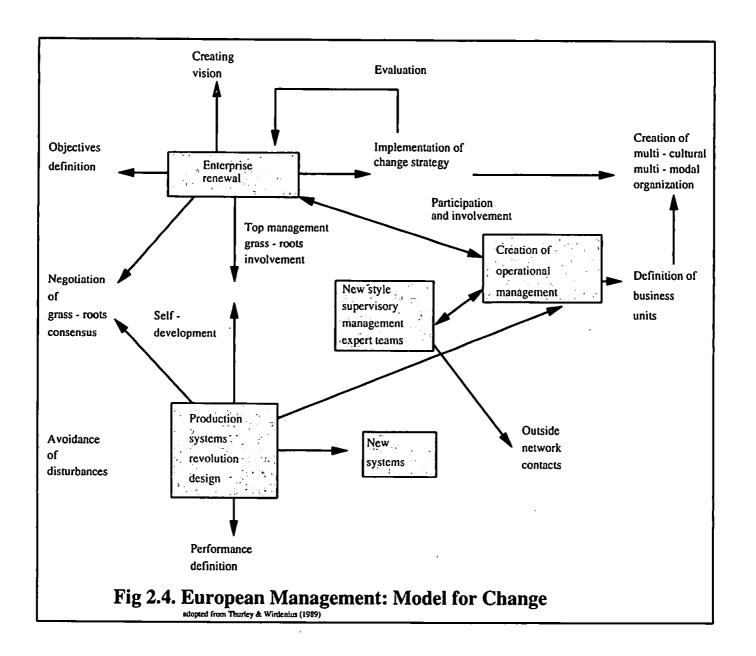
# The General Electric Multifactor Matrix

Source: adopted from Higgins (1991)



- Changing technology, especially computers
- Finding a more creative approach to improve problem solving
- Emphasis on managing organizational culture
- Increasing demands of constituents
- Changing demographics: the cultural diversity of the work force

It can be argued that many of these developments are not new. Various authors pointed them out earlier and furthermore indicated that these developments are relevant in any country in the industrialized world. (Hinterhuber 1984; Hax and Majluf 1984; Porter 1980, 1985; Ohmae 1985; Krueger 1988). It can be concluded that the challenges mentioned by Henzler and Higgins are currently facing all Global, European, and Single Country firms and will continue to have influence in the future. One of the biggest challenges, however, is that posed by the development of the Single European Market. This changes the external environment of most businesses and hence is a new variable which will also have to be managed (Stewart 1991). Thurley and Wirdenius (1989) point out that a gap in both prescriptive consultant solutions and academic (analytical) organizational theory has been the lack of European strategic managerial frameworks. They have tabled a new concept to deal with this challenge which is summarized in Figure 2.4.



Hahn (1991), referring to one of his earlier articles (Hahn 1989), outlines the main steps to be undertaken to meet the challenge of strategic management in the 1990s. These are:

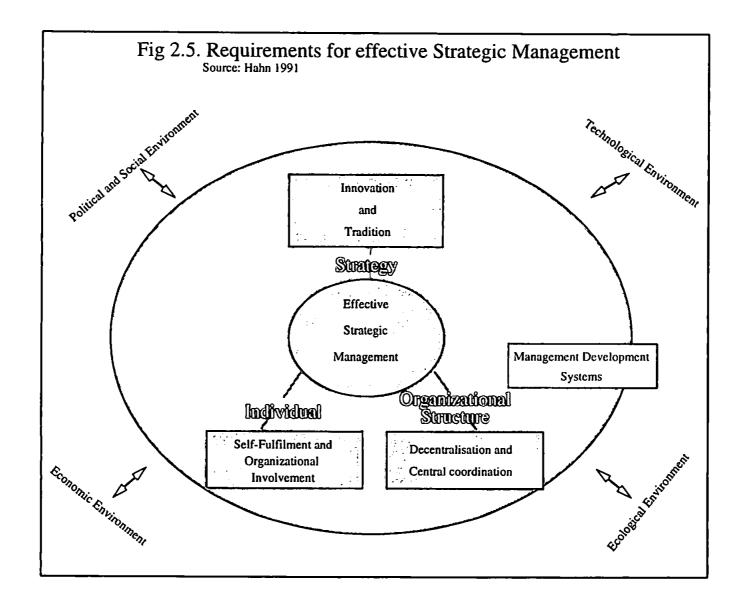
- 1. Thorough analysis and projection into the future
- 2. Identifying critical issues
- 3. Generation, evaluation, selection, implementation and supervision of strategic alternatives This step draws from David's (1989) definition of strategic management mentioned earlier above.

Hahn's conclusions for effective strategic management in the 1990s are summarised in Figure 2.5.

A crucial issue is the actual *implementation* of the strategy because to be successful sources of internal resistance and external environmental constraints have to be overcome. In order to constantly monitor progress and make necessary adjustments, an interlinking *control system of feedback and feed-forward* with differing time scales, operating characteristics and transfer functions has to be in place. Vandermerwe and Vandermerwe's (1991) recent survey of top-level executives tries to determine how strategic change can be made happen. They suggest four distinct stages:-

- 1. Scan the internal and external environment
- 2. Formulate a vision for the future
- 3. Develop and activate strategy
- 4. Monitor and update

All these measures have already been summarized in Fig. 2.1. and therefore validate the strategic management process outlined previously.

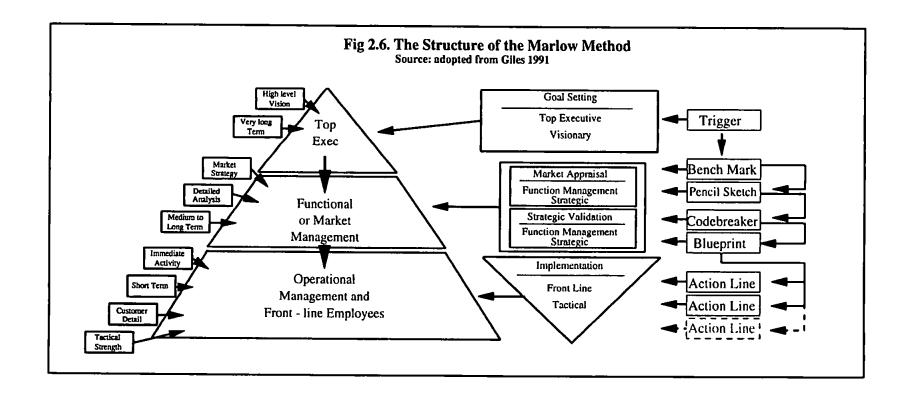


However Vandermerwe and Vandermerwe also isolate four catalyst activities to be associated with these stages:

- 1. Create strategic discomfort
- 2. Provide and manage focus
- 3. Energize and mobilize people
- 4. Maintain momentum

These catalyst activities provide scope for further scrutiny. Giles (1991) notes that most companies understand the need for strategies and their effective implementation but that even the best often fall far short of their goals because organizational development constrains effective implementation. He, therefore, suggests the use of the Marlow method (Giles 1991, see also Crainer 1990), illustrated in Fig 2.6., as a process for formulating and implementing strategies in order to overcome "the continuous short term reactions to market forces that so bedevils Western progress".

Scholes (1991) and Harvey-Jones (1991) share the view that active involvement of all levels of management in the management of change process is a powerful educational tool to enhance staff commitment. In fact Higgins (1991) argues it is one of the vital management challenges for the 1990s. He is supported by Johnson (1992) who highlights the importance of social, political, cultural, and cognitive dimensions in organizations when managing strategic change. Similarly Grundy and King (1992) see strategic planning as a structured learning process at all levels within the organisation rather than an action plan imposed by senior management which frequently does not take into account these additional dimensions.



# 2.2. Strategic Management within Small and Medium-sized Enterprises

A number of authors have suggested that business life cycles may influence the strategic management process in the SME sector. Drawing on Rostow's (1960) work in economics, McGuire (1963) proposed the life cycle of a business could be divided into the following five phases:-

- 1) The traditional company
- 2) Planning for growth
- 3) Take-off or departure from existing conditions
- 4) Drive to professional management
- 5) Mass production marked by a diffusion of objectives and an interest in the welfare of society

Christensen and Scott (1964) suggested a three stage model of:-

- 1) One-unit management with no specialised organizational parts
- 2) One-unit management with functional parts such as marketing and finance
- 3) Multiple operating units, such as divisions, that act in their own behalf in the marketplace

Steinmetz (1969) determined four critical phases of growth for the small company in order to survive. He envisaged each of these stages ending with a critical phase which had to be dealt with successfully in order for the firm to move to the next stage. These four stages are:-

- 1) Direct supervision the simplest stage, where the owner becomes a manager learning to delegate.
- 2) Supervised supervision the manager becomes an administrator dealing with financial or organisational complexities of growth and

expansion.

- 3) Indirect control delegation of tasks to key managers
- 4) Divisional organization at this stage the company has the resources and the organizational structure to remain viable.

Greiner (1972) developed a more complex 5-phase model of corporate evolution which follows the company's transition from small to large. Phases are terminated by a revolution or crisis which leads to the next stage, each characterized by particular management styles and dominant management problems.

Hofer (1975) noted that "the most fundamental variable in determining an appropriate business strategy is the product life cycle." Together with Schendel (1978) he introduced a portfolio model "stage of product/market evolution" for strategy formulation which built on the life cycle concept. Vozikis and Glueck (1980) concluded that a business' stage of development strongly influences formulation and implementation of strategic planning.

Churchill and Lewis (1983) felt many of these suggested business development models were inappropriate because they:-

- a) assume that companies have to grow and pass through all stages or die in the attempt
- b) fail to capture the company's most important early stages (origin and growth)
- c) characterize company size mainly in terms of annual sales (seldomly in number of employees) ignoring factors like value-added, number of locations, complexity of product line, and product development or production technology.

Moreover they argued that the style of the owner or financial circumstances are as important and should be linked to factors such as business size, diversity, complexity, and organizational goals. Together these factors provide the basis for a 5-stage framework to indicate the different phases through which a small company passes. These are:-

- 1) Existence
- 2) Survival
- 3) Success
- 4) Take-off
- 5) Resource maturity

They claim that eight key management factors, relating to the company and to the owner himself, are of utmost importance. If owners can assess the stage within this framework at which their company is operating, they can more easily understand existing problems and anticipate future challenges.

Cooper (1979) offered a simple but widely acknowledged typology of the stages of small firm development: "start-up, early-growth, later-growth". Despite criticism from sources like Vesper (1979) and alternative frameworks developed earlier (e.g. Webster 1976), this typology was used by Robinson et al (1984) to test the two hypotheses that:-

- 1) Small business planning is uniformly effective at all three of these stages
- 2) The relationship between intensity of strategic planning and each performance measure is dependent on stage of development. They concluded that basic planning at each stage has a positive impact on small firm performance. Moreover their findings lead to the assumption that the focus of planning efforts vary according to the business' stage of development. Scott and Bruce (1987) while examining the stages of growth

in small business developed a five stage model by drawing from and categorizing previous research. They distinguish between:

- a) Industry growth models using the product life cycle concept (Wright undated; Little undated; Porter 1980)
- b) Large Business Growth Models (Salter 1970; Channon 1986)
- c) Small Business Growth Models (Maher and Coddington 1966; Steinmetz 1969; Barnes and Hershon 1976; Bruce 1978; Churchill and Lewis 1983)
- d) General Growth Models (Lipitt and Schmidt 1967; Scott 1971; Greiner 1972)

Their proposed model charts a small business' development from "inception, through survival, growth and expansion to maturity" by drawing heavily on the earlier works of Churchill and Lewis (1983) but claim their model to be a lot broader because it also incorporates the product life cycle concept. Like Steinmetz (1969) and Greiner (1972) they identified four crisis points which accompany the transition into the next stage of development.

The growth models proposed for the understanding of small business have been summarized by D'Amboise and Muldowney (1988) in Table 2.2. The majority of the models can be considered as diagnostic tools to assist in analysing a company's current situation and the stage of growth. None is a panacea for strategy formulation. Most research of small company growth concentrates on personal characteristics of their entrepreneurial

Author		Krooger	Thompson	Parks	Gorvals (Basiro)	Robidoux	Naoum	Churchill & Lowis	Vargas	Hosmer, Cooper, & Vesper	McGuiro (Hairo)
Title	Evolution- revolution	Life cycle	Phases of growth	Hurdlos	Dynamic 1 to 1000 employees	Crises	Stages of	Siage model	Growth-	Stages of growth	Square-cube law
Year	1972	1974	1976	1977	1978	1980	1981	1983	1004		
Growth Model	Metamor- phosis	Metamor- phosis	Melamor- phosis	Metamor- phosis	Melamor- phosis	Metamor- phosis	Motamor-		1984 Motamor- phosis	1977 Cell	1976 Cell
នុំ ប្រ (source: d'Amboise and Muldowney 1988)	1. Creativily leadership crisis 2. Direction autonomy crisis 3. Delegation control crisis 4. Coordination red tape crisis 5. Collaboration ?	4. Maturity 5. Doctino	4. Turn about (reorga- nlzātion) 5. Takaover, transfor or sharing of ownor- ship	1. Starting 2. Cash flow 3. Delegation 4. Idea 5. Leadorship 6. Capitalization 7. Complacency 8. Exponsion 9. Management succession 10. Involvement 11. Value	1. Craft	1. Start up 2. Liquidity 3. Dalegation 4. Leadurship 5. Financing 6. Prosperity 7. Continuity	I. Start up  I. High growth  J. Delegation  Leader-ship allirmation  J. Presperity (complacency)	Hypotheses lealed  1. Survival- struggle  2. Breakout  3. Take off  Modified model  1. Existence  2. Survival  3. Success	Groinor's model plus subsystems  1. Finalization  2. Organization  3. Resources management	2. Early growth 3. One-layered manage-ment	As an organization expands, it must bolster its structure and add more support personnel

owner-managers and not on strategies they use or should use (Perry 1986). This view is shared by Gibb (1990) who distinguishes between four approaches to understand SME growth:-

- 1) Personality Dominated approaches
- 2) Organisation Development approaches
- 3) Business Management Approaches to growth
- 4) Sectoral and Broader Market Led approaches

Gibb concludes that "most of it (previous frameworks) fails to provide convincingly evidence of the determinants of small firm growth as a basis for informing policy makers....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 he raises doubts whether such a theory could be produced in the near future due to conceptual and methodological weaknesses in social science research.

Despite difficulties in clearly identifying different business growth stages and their corresponding strategic management measures, literature on small/medium-sized business strategic planning does exist. But the picture is very diverse. Different authors in the early eighties (Bhatty 1981; Unni 1981; Nagel 1981; Cooper 1981) pointed out that unlike the large organisation situation, only limited research had been done on establishing a relationship between strategic planning and business success in the SME sector. As stressed by Robinson and Pearce (1984) the strategic planning research on SMEs "has emerged sporadically with noticeable lack of continuity rather than in clear research tracks". Moreover most literature in this area is rather prescriptive or is lacking a rigourous empirical base.

Another problem facing the researcher is the diversity of definitions which exist on the nature of an SME firm (Van Hoorn 1979; Hertz 1982). Only in the last decade with the emerging Single European Market has a comprehensive European definition been given by Brussels (Tigner 1988; Birley 1989). This is based on the European Investment Bank definition of not more than 500 employees, net fixed assets less than ECU 75 million, and not more than one-third of the firm's capital held by a larger company. This definition, however, is still not used throughout the Community. Hence it is very difficult to compare published data on the SME sector. Table 2.3. summarizes the nature of research over the last 33 years and identifies four major types of SME studies.

Table 2.3.

Characteristics of Small Firm Planning Literature since 1950

	Studies examining the	Studies describing	Smallers secking an	Studies examining
	value of planning ac-	Current planning prac-	determine the mess	the appropriateness
	Unity in small firms	thces (or back of it) in	appropriate strate gic	of specific supergies
		small firms	physical process for	Our sensal forms
Fizze Period			ensil firms	
950s	Limited prescriptive			
	literature			
60s	Widespread prescriptive	Limited prescriptive	Limited asserdoral	
	end quasi-empirical	and anecdotal literature	<del>literature</del>	
	literature			
70s	Moderate prescriptive	Limited empirical	Limited prescriptive	Limited prescriptive
	Discretize and District	research	and quasi-empirical	Eterature
	empirical research		Recrature	
50a	Limited empirical	Limited coopirical	Limited empirical	Very limited empirics
	त्याद्यक्ती करते (pre-	research and pro-	research and widespread	research and (Imited
	criptive literature	scriptive Recretors	prescriptive literature	prescriptive literature

Several studies examined general planning processes within small firms (Buchele 1965; Barreyre 1965; Taylor 1978) to determine the important characteristics of planning. They concluded that time perspectives of planning in successful innovation-centered firms were short-term (i.e. less than 2 years). Gasse (1979) found that more than 50% of small manufacturers operated with formal written plans. He detected a strong link between high sales growth and short term plans. Wheelwright (1976) and Robinson (1980) also came to the conclusion that short-term planning proved most effective for the small firm and planning processes are informal. This conclusion was further supported by a later study (Robinson and Pearce 1983). Bhatty (1981) looking specifically at mediumsized companies noted that although corporate planning was wide-spread, it was far from being the well-balanced and integrated system proposed in academic texts. However concerns have to be raised on Bhatty's sample group because it contained companies with 2000 - 4999 employees and in the light of recent definitions of SMEs, these have to be considered as large companies.

In relation to strategic planning processes in SMEs Unni's (1981) research on small American firms indicates a considerable lack of constructive strategic planning. Most business activities seem to be operated on a 'trial and error' basis where judgement through experience and intuition plays an important role. Robinson and Pearce (1984) in summarizing various studies from 1968-1982 (see Table 2.4.) concluded: "comprehensive planning was conspicuously absent in small firms ... was described as unstructured, irregular, and uncomprehensive ... with a reactive rather than proactive orientation".

## **Table 2.4.**

A Summary of Research
Examining Strategic Planning Practices in Small Firms

Study	Firm		aple Decision of			
Authors	Studie		Definition of Small Business	Methodology	Focus of Study	Findings
Satt (1974)	92	Manufacturiu and con- truction	Less than 2000 employees	Survey question- naire based on initial, in-deput interviews of pilot sample	To empirically identify the oature of trateging planning below for in small butinesses	I. Strategie planning in amal
Anderson (1970)	75	Service firms	Up to \$3 million in annual sales	Interviews with owners/ managers	To profile the "typical" owner/manager and to identify the management practices in small service firms	sonal sources.  1. Owner/managers were more service oriented than profit oriented—spending £0% of their time with customers.  2. Owner/managers did practically no formed phaning because they lacked! (1) time, (2) education, and (3) train-
Rice & Hamilton (1979)	15	Service, wholesale and retail	f to 190 employees	Structured interview	To investigate the decision making approaches of small business managers "rational approach" vs. "social (satisfying) approach"	ing.  Decisions involved considera- tion of an average of four factors.  The planning approach was nonrational, contynematic.  Information on which factors were evaluated came from sources less knowledgable than the owner/manager.  No weighing of planning fee-
Cohn & Lindberg (1972)	197	Varied — 106 small busi- nesses and 91 large businesses	52-510 million an- nual sales	Survey question- naire and interviews	To identify and caplore differences in the management of small vs. large firms	tors was evident.  Planning was the most diffi- cult function to perform well in the small companies.  Detailed planning beyond the clearly seen future induced rigidities that largely offset the advantages of a small furn's flexibility and maneu- verability.  Setting goals was the weaker aspect of small business plan- ning.  Small furn planning required comiderable time investment.  On-the-job experience in a small furn III prepared a man-
Shuman (1975)	41	Manufacturing	Up to 800 employees	Questionnaire and interview		ager to ptan.  1. Planning was informal un- trustured, and apporadic.  2. Planning was impeded by im- perfect and insufficient infor- mation.
Scuon & Dable (1976)	12	Manufacturing	Up to 750 employees	Survey questionnaire -	To describe long range planning in small businesses	Planning was informal, un- structured, and sporadic.     Planning was impeded by im- perfect and imufficient infor-
Hastings (1961)	106	Manufacturing	Less than 500 employees	Survey questionnaire	To survey plan- ning practices and problems in planning.	mation.  1. Most small business planning was informal.  2. Critical problems essociated with planning were: (1) getting started and (2) affocating
Jones (1982) Sexton 4	69 157	Service manu- facturing	Not specified	Survey	To identify char- acteristics that discriminate be- tween planners and non- planners in small firms	time, 1 Found 14 characteristics that significantly differentiate planners from nonplaneers.
Van Auken (1982)		Varied .	Not specified	Questionnaire	To assess the de- gree of strategic planning activ- ity in small	1. Found a "rather soemic level" of strategic planning among the tample's small businesses. 2. 33% of the sample carried of "strategic thinking," but rarely was this thinking translated into active plans.

Source: Robinson and Pearce 1984

This view is shared by Kilzner and Glausser (1984) who categorize the five most frequently encountered reasons by the owner-manager for not planning being time constraints, having been successful in the past without planning, volatility or future uncertainty of environmental factors, fear of information leaking to competitors, and lack of knowledge of how to plan. Aram and Cowen (1990) add on to that list: "smaller firms often shy away from planning because management believes such processes are only suitable for larger organizations...because of the resources required". Moreover commonly held misconceptions are:-

- Strategic knowledge must be acquired from individuals outside the organisation
- 2. The process requires an existing planning expertise, must be highly structured and formal
- 3. No immediate pay-offs
- 4. The end result of the strategic planning process is the development of multi-year financial proformas

Robinson and Pearce (1984) concluded that despite 'strategic thinking' by management in the SME sector this was seldomly formalized or 'fed' through communicational structures within the company. Furthermore the search for alternative plans was rather passive, with managers tending to accept the first option that is found to be attractive. Nagel (1981) puts forward a framework for strategy formulation which, as he claims, worked successfully in some 50 smaller companies in the Netherlands. It is rather simple and only takes into account short-term planning. The structure draws heavily on previous frameworks and moreover needs external assistance for implementation. Nevertheless, the claimed success, it can be argued, shows that any professionally supervised strategic planning could lead to improvement of performance of the small enterprise.

Several other studies deal with the value of strategic planning in SMEs but have reached different conclusions. Woodruff and Alexander (1958), Mayer and Goldstein (1961), Chambers and Golde (1963), the University of Iowa (1963), Birley (1982) and Thurston (1983) all came to the conclusion that strategic planning efforts were a discriminator between successful and unsuccessful companies. Their conclusions, however, are based on subjective interpretation rather than statistical analysis. Studies surveying SMEs over a longer period of time while trying to establish a relation between any form of planning and performance (Christensen 1953; Trow 1961; Robinson 1980,1982; Bracker 1982) only provided limited evidence that strategic planning enhanced small firm growth and profitability. Shrader, Mulford, and Blackburn's (1989) research, however, indicated that service companies and manufacturers did not seem to benefit from strategic planning in contrast to small retail firms. Operational planning, again, was linked positively with performance and a positive correlation between uncertainty and strategic planning could be detected.

Cooper's (1981) attempt to allocate certain general strategic management tasks to the three growth phases of small firms is rather descriptive and in commenting on earlier studies (LeBreton 1963; Steiner 1967; Wheelwright 1971; Gilmore 1971), he concludes "The evidence supporting these recommendations is anecdotal and based upon general observations. Much of it appears to be sound, but there is no systematic research examining the strategies of a large number of (small) firms and their performance over time." Interestingly Cooper endorses Nagel's view on the importance of short-term planning for the small business to enhance flexibility while pursuing niche strategies.

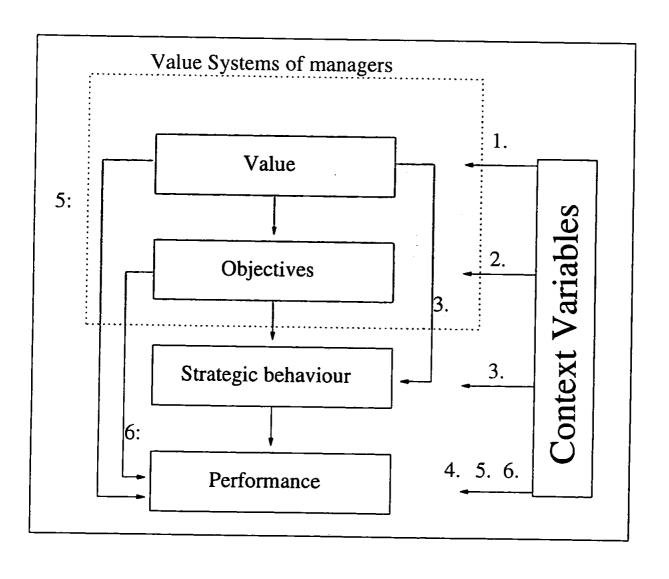
Bamberger (1982) criticizes such short-term orientation as reactive and incremental. His view is supported by other studies (Ball 1983; Gill 1985). The research indicates that success of SMEs is not necessarily based on costs, prices, and marketshare - i.e. economies of scale and experience curve effects - but on other factors such as quality, service, innovation capabilities, and specific technology. Hence these factors should be taken into account of the analysis of the competitive position and Bamberger proposes the hypothesis that portfolio-analysis could be used. His findings do not fully support this hypothesis and he recognizes the limitations of using this method in the SME sector. Nevertheless his study "revealed that the fundamental logic and the relatively simple structure of portfolio analysis seem to match well cognitive categories of strategic reasoning of many managers". Consequently Bamberger recommends the technique for analysing information, and developing longer term perspectives within the enterprise.

In a later paper Bamberger (1983) examines the interdependence between value systems and strategies and performance of SMEs and points out the following key areas for future research:-

- 1. value systems of managers and their objectives for the firm
- 2. strategies adopted for the firm
- relationship between these values, objectives and strategies with regard to company performance (how to measure criteria such as profits, cash flow, financial growth, independence, job, security,

Fig 2.7. Bamberger's proposed Research Design in 6 hierarchical steps

Source: Bamberger 1983



social services etc.)

4. context variables consisting of factors which might influence the managers value system and consequently strategies and performance

Figure 2.7. summarizes the hierarchical research design proposed by Bamberger.

Robinson and Pearce (1984) considered that the four main areas in SME research which need further attention are:-

# 1. Planning Practices:

- (i) How is planning operationalized in studies of small firm planning?
- (ii) Is the application of planning the main ingredient that separates the growing from the small, static business?
- (iii) What are the key factors that discourage or prevent planning?

# 2. Value of Strategic Planning:

- (i) What economic and noneconomic measures might broaden understanding of the impact of planning in small firms?
- (i) Is the value of planning linked with the type of firm, development stage, dependency, financial condition, etc.?
- (iii) Can long or short term value of planning be better determined by longitudinal research?

# 3. Planning Processes within Small Firms:

- (i) In what way should small firm planning systems work to achieve the appropriate level of informality?
- (ii) How should external advice be used in the process?
- (iii) What specific activities should comprise the planning process?

- 4. Content of Small Firm Strategies:
- (i) What viable strategic options exist for small firms?
- (ii) What are essential capabilities that a firm must possess to pursue different strategies?
- (iii) How do and will factors like franchising and computerization influence the strategies and tactics of smaller firms?

Exploratory research using case study material by Perry (1986) looks at possible growth strategies for small firms by using a modified Ansoffmatrix. He concludes that small firms, to minimize financial risk, should pursuit niche strategies and using the chronological order of market development strategies and then product development strategies. Unfortunately, a very small number of case studies seems to validate the hypothesis and, as the author points out himself, further studies are needed to confirm the conclusions. Langer (1988)describes a project which was aimed at transferring know-how gained from theoretical frame-works in strategic management of larger corporations into small enterprises in the hospitality industry. He claims that the project showed that, in principle, general stategic management frameworks are neutral as regards industry and company size but need considerable adaptations when transferred to smaller businesses. The main difficulties that have to be overcome, outlined by Langer, are:-

- Incorporation of issues such as owner-manager's personality, motivation, targets, technical qualifications, age, successor questions, stability of the partnership etc. into the strategic management process
- 2. How concrete standards of reference for large companies such as market share, market growth, and financial ratios can be applied in small businesses.

3. Creating analytical tools which are less complex and more user-friendly

Despite these problems Langer created a strategic framework for small enterprises in the hospitality trade. It strongly resembles that already outlined in Figure 2.1. and therefore indicates this framework, if appropriately segmented, could be applicable to other small enterprise scenarios. In the same year d'Amboise and Muldowney (1988) examined the attempts that have been made to develop theories of small business management. Their discussion of various contributions is built around five distinctive areas:

- 1. Task environment
- 2. Organizational configuration
- 3. Managerial traits
- 4. Success-failure issues
- 5. Growth issues

They conclude that there is no grand management theory for small business and no all-encompassing theoretical framework capable of explaining the management of small companies. Typologies had been developed in several of the areas mentioned and each viewpoint yields a number of relationships among many variables which can be utilized as indicators of the functioning of small business. These are valuable attempts at theory building that could result in the formulation of worthwhile constructs and serve as guides for reflection and action. But d'Amboise and Muldowney strongly advocate that all areas of small business management need more research and that research instruments should be refined to identify and observe management practices. They moreover recommend examination of total organizations instead of component parts as has been done previously, in order to gain more global perspectives to develop more widely applicable theories.

Pleitner (1989) again, taking up this latter argument, states that over several decades, there has been a noticeable shift in emphasis in the evolution of management theory from explaining specific aspects of management to understanding the total process or mechanism. He moreover notes that there also has been a remarkable surge of interest in small business and that the pattern of relationships between these two developments seems to suggest that, as interest in small business increases, interest in strategic questions decreases - certainly a controversial view. Pleitner compares graphically steps in the strategic management process, as perceived by Hinterhuber (1980) and by Kirsch and Trux (1983) and develops a typology of small business entrepreneurs differentiating between a narrow and a broad perspective. The type of entrepreneur is pictured in relation to the need for strategic management, awareness of need, and likelihood of its use.

Bamberger (1989) attempted by drawing on Porter's (1985) framework on competitive advantage - designed for larger corporations - a theoretical and empirical analysis of the competences used by small and medium-sized firms to create competitive advantages in their markets and their determinants. The data were drawn from the international file of the Strategic Orientations of Small and Medium-Sized Enterprises research project (STRATOS). The sample consisted of over thousand firms from 3 industries (clothing, food, and electronics). Owner-managers and senior managers were asked about the importance of 26 factors in achieving or maintaining a competitive position. The results showed that product quality was considered the most important factor for the achievement of competitive advantage in the market. Bamberger groups the 26 items into 6 general factors, using factor analysis, which are considered by a

majority of firms to be basic requirements for their competitiveness. The results also confirm the assumption that industry and market conditions are strongly related to the types of competitive advantages developed, product/market strategies pursued, firms' objectives and internal resources. Although Bamberger acknowledges three kinds of weaknesses in his research he points out ways to overcome these limitations in future research to identify "success strategies of the (small) firm under different contextual conditions."

Taylor et al (1990) looked at strategy and leadership in high growth medium-size companies. A questionnaire survey and interviews with 47 chief executives and directors in the UK and 22 in West Germany confirmed Bamberger's view that in both countries, management maintained tight financial control and believed in product quality and excellence in service. The companies competed on value rather than price and positioned themselves in narrow market niches (see also Cooper 1979, Nagel 1981, Perry 1986). They also stayed close to customers, invested in flexible manufacturing and delivery systems, and made frequent innovations in products and services. They overcame barriers to growth and minimized their risks by rapidly diversifying into related products, services ore markets, and present and new market development.

Aram and Cowen (1990) state that the owner-manager of a small business faces a particular managerial challenge as the firm is immediately vulnerable to changes in its competitive environment. They detected that relatively small differences appear to allow "some firms to make increases in performance while other firms struggle to make marginal gains." Therefore these differences must have considerable impact for the small, owner-managed firm. Planning is the key to capturing the 5% difference,

which the authors refer to as the critical difference. Owner-managers can lower the barriers to planning effectiveness by developing appropriate assumptions. Preconditions that help capture the 5% difference include:

- 1. top management that is proactive in initiating planning
- 2. the achievement of adequate financial performance
- 3. the existence of satisfactory internal and external financial reporting systems.

El-Namaki (1990) looked at small business development policies and practices and at managerial skills as a prime barrier to small business development. Misconceptions of many commonly held beliefs are identified and proposals made for affecting long term change in this sector. These proposals are split into those relating to the *individual* e.g. the managerial behaviour of the owner-manager and those at *system level*:

- 1. addressing the *individual*: playing to the strong side of the entrepreneur and providing feedback and advice
- 2. at the *system level*: lowering the threshold and eliminating barriers, encouraging alternative modes of entrepreneurship, and stimulating an outward orientation.

Dodgson and Rothwell (1991) noted that to compete with larger firms, small and medium-sized high-technology firms must develop the advantages of speed of response and flexibility. The key issues of the strategic management of technology, however, seem to apply to a wide range of companies and industrial sectors. These are:-

- 1. accumulated technological competences
- 2. internal strategic cohesion
- 3. organizational specialisms
- 4. external orientation

### 5. management skills.

Some of these major features, as the authors claim, already exist in small and medium-sized firms. In all aspects of strategy the question of learning plays an important role as pointed out by other authors (Giles 1991, Johnson 1992, Grundy and King 1992). The companies in the survey initially competed on the basis of externally driven technology, but gradually developed their own skills through high commitments to internal learning supplemented by the integration of external knowledge. Their advantages over large firms often lay with their organizational flexibility and speed of response, or strategic cohesion. In a different article Rothwell and Dodgson (1991) stated that one area in which SMEs can suffer a marked disadvantage to their larger counterparts is that of establishing the appropriate network of contacts with external sources of scientific and technological expertise and advice. They therefore examined SMEs' external linkages and showed the importance of in-house technical skills and linkage activity, the importance of complementary between inhouse and external know-how accumulation, and the importance of technology strategy in guiding the accumulation process. SME-orientated public technology policies should be adapted to the specific needs of SMEs in that they should focus on facilitating vertical linkages and offer support throughout the innovation chain from precompetitive research through to product development. This is the claim the authors made earlier (Dodgson and Rothwell 1988) when stating that the UK government's policies for SMEs are piecemeal and lack true coherence as evidenced by the failure of innovation policies to redress the regional imbalances.

#### CHAPTER 3

# THE SINGLE EUROPEAN MARKET

# 3.1 Origin and development of the European Community

After the second world war, a multitude of European unification initiatives contributed towards creating a very confusing picture of European affairs (Blacksell 1981). Many different organisations came into existence: the Organisation for Economic Cooperation and Development (OECD), the Western European Union (WEU), the North Atlantic Treaty Organization (NATO), the Council of Europe, and the European Communities (comprising the European Coal and Steel Community, the European Atomic Energy Community, and the European Economic Community). Although all these organisations were independent of each other, they can be classified by their underlying concrete aims into three major types (Borchard 1989). The first group comprises those 'transatlantic' organisations which were established to build links between the U.S.A. and Western Europe after the second world war. It was America's Marshall Plan which led to the creation of the OEEC (Organisation for European Economic Cooperation) in 1948. When Canada and the U.S.A. in 1960 became members, this organisation was renamed the OECD. The OEEC was followed in 1949 by the NATO - a military pact between the U.S.A, Canada and the majority of free states in Europe. To this group can be added the Western European Union, founded in 1954. It was intended to strengthen security between the countries of Europe by fulfilling the role of contributing a greater European voice in the Atlantic Alliance. A second type of organisation is the Council of Europe which was founded on 5th May 1949 as a political organisation. Its aim is European solidarity through the creation of closer links among the countries of Europe and by

Figure 3.1. Steps towards a European Single Market 1948 - 1993

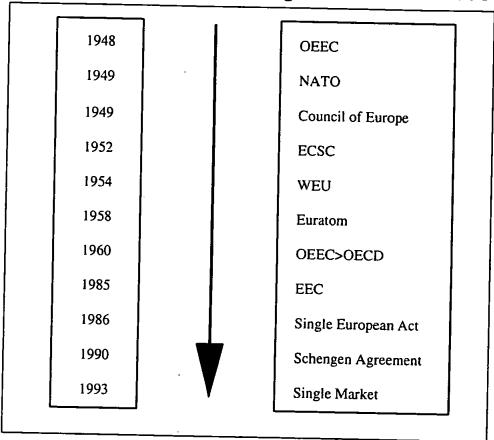


Table 3.1 Three types of European Organisations

Type 1 Transatlantic Organisation	Type 2 Political Organisation	Type 3 Economic Organisation	
OEEC / OECD NATO WEU	Council of Europe	ECSC Euratom EEC Schengen Agreement	

promotion of their economic and social progress. Twenty three countries are now members of this organisation and its most significant contribution was the European Convention for the Protection of Human Rights and Fundamental Freedoms (4th November 1950).

The third type of European organisations are those which were created for purely economic reasons. They include the European Coal and Steel Community, the European Atomic Energy Community and the European Economic Community. From the legal point of view, these communities exist as three separate entities. In political reality they can be treated as one entity and moreover they gave birth to the "European Community" and the twelve member states which form its shape (Figure 3.2.). Just lately, in June 1990, the Schengen Agreement was signed by France, Germany, Belgium, Netherlands, and Luxemburg as an "accord to remove their border controls..." and thus "...(people and goods) will be able to move freely within the five nation zone. The Schengen Accord is the prototype for a border - free Europe" (Sallnow 1991).

In discussing the situation facing Europe in the early 1950's Barnes and Preston (1988) state that "the problem with grand strategies is that they tend to evaporate when faced with reality. Inevitably, the enthusiasm for a federal Europe declined as memories of the second world war became less immediate, and more limited strategies became appropriate." At that time it became obvious that the European countries were rather more concerned about their national priority of clearing the rubble of the war than interacting with each other to establish European solidarity. However, on 9th May 1950 the French Foreign Minister Robert Schuman put forward a plan which he and Jean Monet had worked out in order to pool French

Figure 3.2. Members of the Schengen Agreement 1990
Source: Sallnow 1991



Schengen States

Other EEC States

and German coal and steel production under a joint High Authority. This organisation would be open to any other country in Europe that wished to join. The major concern which lay behind this proposal was that an independent Germany was still seen as a threat to peace. At the same time it seemed pointless to impose unilateral restrictions on Germany. Thus it was felt there was significant benefit if Germany could be tied politically and economically into a firmly based grouping of European states. This became reality on 18th April 1951 when Belgium, Germany, France, Italy, Luxembourg, and the Netherlands signed a treaty establishing the European Coal and Steel Community (ECSC) which came into force on 23rd July 1952. This was followed by the European Atomic Community (Euratom) and the European Economic Community (EEC) agreements which were signed as part of the Treaty of Rome by the same six countries in March 1957 (Treaty of Rome) and came into force on 1st January 1958.

Although the Treaty of Rome is the foundation stone of the European Community, achievement of genuine economic solidarity was to take much longer. Especially from the British side, fierce quarrels were provoked over the best approach to European economic integration. The British approach was to set up a European free trade area which would involve no sacrifice of national sovereignty. This led to formation of the European Free Trade Association (EFTA) by Denmark, Norway, Sweden, Austria, Portugal, Iceland, Switzerland and Britain, with Finland as an associate member. But observing the success of the EEC from the outside the British Government soon discovered that its refusal to play an active part in the community had to be reconsidered. Britain risked political isolation since the EFTA's objectives were purely economic, unlike the EEC's which were both economic and political. The rapidly growing Community market offered an ideal opportunity to: "mobilize British firms'

strength in the fiercely competitive European arena and so help to revitalize the economy as a whole" (Borchard 1989).

Consequently Britain made its first formal appliance for full membership in the EEC in August 1961. Britain faced deep mistrust from the French, thus General de Gaulle vehemently blocked Britain's appliance. After de Gaulle had stepped down in 1969 and the political climate in France had eased, Edward Heath was able to sign the treaty of accession in 1972. Britain was followed in 1973 by Ireland and Denmark. Norway stayed out due to a referendum which failed to give approval for an accession. In 1975 Greece applied and joined in 1981 followed by Spain and Portugal in 1986. Meanwhile Greenland left the EEC in February 1984, as the nation's population voted against continued membership.

# 3.2 The Single European Act and the Single European Market

Progress towards political and economic union has been hampered by discussions about technical details because the member states could not agree on how national standards could be transformed into one European norm. Moreover the economic slumps of the 1970s caused a tendency amongst the member states to protect their home markets against countries both from outside and within the European Community. It also has to be taken into account that in recent years Pacific Basin countries such as Japan have been extremely successful in entering world markets and thereby threatened the future existence of many Western companies, (Ohmae 1985). Tietz (1989) mentions especially the information technology sector as lagging behind in Europe referring to views expressed by Bieber et al (1988).

Eventually it became obvious that only a totally unified approach could create an economic framework which provides sufficient economic protection against the threats from the East as well as from the U.S.A. Even Germany, the biggest European market for industrial goods, is only half as big as the Japanese and less than a quarter of the U.S. market. Hence only a unified European Market that brings about cost-savings in most production processes leaving more money to be reinvested into R&D and further cost saving by reducing bureaucracy, can remain competitive, (Amt für amtliche Veröffentlichungen der Europäischen Gemeinschaft, 1989). Development of new products and production methods can be used to illustrate this concept. The European Community spends some 76 billion ECUs on R & D. This is little more than half of US expenditure and although greater than Japan's 50 billion ECUs, it is not spent as efficiently because of duplification of effort, (Dudley, J. 1989). Moreover

only three countries account for 75% of Community R & D expenditure: Germany, France, and the UK and regional variations are acute (see Table 3.2.).

As a percentage of GDP the figures are even more alarming: Europe spends only 1.9% of its GDP for R & D compared with the US's 2.8% and Japan's 2.6%. Of the 12 member states only Germany's 2.8% is in line with outside competitors. This was only one aspect of a growing awareness amongst the member states that there was still a lot to achieve to transform the European Community into one powerful economy which could face the challenges from abroad for the years to come. Thus the fragmented nature of the European market and national attitudes had to be rapidly overcome (Dudley 1989).

Table 3.2. The Intensity of R&D spending by Member States

	("R & D as a percentag	"R & D as a percentage of GDP"			
	1981	1987			
Germany	2,45	2.80			
France	2.00	2.35			
UK	2.40	2.35 2.30			
Netherlands	2.00				
Belgium	NA.	2.30			
Denmark	1.10	1.50			
Italy	1.00	1.30			
Ireland	· - •	1.50			
Spain	0.70	0.80			
Portugal	0.40	0.70			
Greece	0.35	0.40			
	0.20	0.35			

Sources: OECD and national data, Figures from Luxembourg not available. First report on the state of Science and Technology in Europe - Commission of the European Communities. (taken from Dudley: "1992 Strategies for the Single Market")

In 1985 the Commission of the EC proposed a programme comprising 300 separate pieces of legislation (The White Paper) which would lead to a

unified single market by the end of 1992. In this timetable of activity - based on a period between June 1985 and the 31st December 1992 - legislation should be front-loaded in order to allow individual states to enact their own legislation to bring each into conformity with EEC law by that deadline.

On the 17th Feb 1986 the 12 member states signed the "European Single Act" (ESA) into which the White Paper had been incorporated. The 'ESA' is meant to bring the solution to a major weakness of the past where the slowest dissenting member nation determined the speed at which legislation progress has moved within the EEC. The Act overcomes this problem as it replaces the unanimity provided within the original treaties and by covering a broad spectrum of Community law, sets out to amend a number of these original treaties. The following diverse areas are covered (Dudley, 1989):-

- 1. economic and social cohesion:
- 2. environment
- 3. co-operation between institutions
- 4. political co-operation

Tietz (1989) specifies the following higher aims:-

- 1. market unification and thus market community
- 2. development of a technology community
- 3. enforcement of the development of a political community
- 4. further development of the relation between EFTA and EEC to a complete West European community

In detail Tietz states the goals of the Internal Market for the European entrepreneur by joining efforts and exploiting the chances offered:-

1. enforcement of co-operation in economic, foreign exchange

exposure, and social policies

- 2. widening of community policies on environmental issues
- 3. widening of community policies on R & D  $\,$
- 4. opening of national resource markets
- 5. setting up of common norms and standards
- 6. abolition of legal and fiscal obstacles
- 7. simplification of decision processes

But in order to achieve these goals several existing obstacles had to be removed which are widely known as the "three barriers".

# 3.3. The Abolition of the "three barriers"

The White Paper defines three barriers which have to be removed by the 1992 deadline (Deutscher Industrie- und Handelstag 1989):-

- 1. physical barriers
- 2. technical barriers
- 3. fiscal barriers

Moreover it states that the removal of these barriers will have implications on all different areas of community policies such as employment, transport, environment, agricultural, competition, regional, social, and foreign policies. Much attention is given to four of these aspects as they have an umbrella function for all these areas of community policies. These are:-

- 1. inner cohesion: advantages for both poor and rich regions,
- 2. policies on competition,
- 3. member states and community law,
- 4. foreign policies.

With regard to 'inner cohesion' a document of the Amt für amtliche Veröffentlichungen der Europäischen Gemeinschaft (1989) states the possibility of certain 'attractive' regions prospering from the allocation of human, material, and financial resources as it is assumed that these regions will have the highest returns on the resources invested. Furthermore it supports this fact as economically reasonable. The Benelux-states, Northern France, Southeast England, and the German Ruhr-area are mentioned as the strongest contenders. Regions which are situated in the outer areas of the community and which have a less developed infrastructure or less economic potential will find themselves "struggling in the short term and will not be able to share the advantages". For instance regions ranging from Western Scotland, the South West of

the UK and down to Portugal are referred to as the "Atlantic Arc", problem regions facing major difficulties within the EC (Gripaios 1989, 1990, 1991). On the other hand the document assures that financial means will be offered to these regions in order to enhance their infra structure. Therefore these regions should avoid perceiving the Internal Market as a threat but as a locomotive which will push the 'whole' community forward.

Recently a survey by the IFO-Institute in Munich (1991), commissioned by the Directorate General for Regional Policy in Brussels, was published which had asked 9000 companies in 55 regions of the EEC whether they were aware of the Internal Market and what their attitudes towards its completion were. Basically all SME - sector companies (Small-Medium sized Enterprises) in the less attractive areas feared the Internal Market as a major threat which will only increase their already existing problems! They claim that less funding for these regions automatically means that they will face more competition from bigger companies of the wealthy regions which will use their resources to exploit the markets of those underdeveloped regions.

As regards 'policies on competition' the ESA suggests that a system has to be established which will monitor competition within the Internal Market for the benefit of suppliers, traders, and consumers. This regulatory system is focusing on "price - deals" among competitors, agreements on marketshare, quotas on production, or coupling clauses. Moreover it will establish measures in order to hamper those governments which sponsor certain enterprises via direct aid or tax advantages. The Commission believes that strong policies on competition are inevitable in securing the freedom of trade which is promised by the Internal Market. Thus it will be increasingly difficult for those governments and enterprises which would

like to leap-frog these regulations. Moreover these regulations have brought about tougher rules for mergers and fusions in order to control - in a feasible way - economic power concentrations within the community.

The application of the legal framework and the mutual respect of Community law will finally determine the success of the approximately 300 step programme laid down by the White Paper, incorporated into the Single European Act. There has to be a clear will to overcome differing national attitudes which proved to be the main reason for existing barriers. Thus the different interests of the member states have to be weighed against the mutual interest of the community. But what seems even more problematic is the embedding of the some 270 new regulations into the structure of the member state's existing national laws. It is already obvious that some states are modifying their existing laws much quicker than others. This reflects an understanding of the underlying aims and moreover, the readiness to rapidly exploit the new opportunities of the Internal Market. Especially as regards technical standards, the European Court of Justice is highly involved in applying the new regulations. This court is aimed to be the court of final appeal when the member states' jurisdictional systems cannot reach a verdict. The Court of Justice of the European Community consists of 13 judges assisted by 6 Advocates-General and its task can be understood as to: "uphold the law in the interpretation and application of the treaties and acts adopted by the Council and the Commission. From the very outset it approached its task not merely as a purely judicial business but in a broader, active lawmaking spirit, fleshing out the basic principles of Community law to lay a firm foundation for integration", (Borchard 1989). The most famous example is the case of "Cassis de Dijon" in 1978 which laid a foundation stone to European legislation on technical standards and norms: any product,

produced in one member state and complying to the safety regulations of that country can be sold in any other member state without any problem. This indicates that in future not every similar case has to be ruled again but that this case has an umbrella - function for food and drink standards. But this can also cause problems (e.g. the German beer industry and the Italian pasta industry) for those fearing cheap - both in price and quality - competitors sweeping into their markets.

In June 1988, the European Council met in Hannover/Germany in order to discuss the foreign policies of the Community as it was feared that the Europe after 1992 might isolate itself from the world outside. Moreover the Council agreed in October of the same year to "a programme for 1992". The four basic points of this programme are as follows:

- 1. The abolition of internal trade-barriers will contribute to both EEC internal and external companies;
- As the community is strongly dependent on world trade as regards its resources as well as its markets it has a vital interest in promoting free and open worldtrade;
- 3. The community acknowledges its commitment as regards GATT (General Agreement on Tariffs and Trade) and the OECD as well as its relations with EFTA and ACP (African Caribic Pacific) countries;
- 4. The community would like to enhance the multi lateral tradesystem in that sense as it stands for the idea of a perfect balance of advantages and reciprocities.

In 1988 the European Commission had already put forward 90% of the proposals of the White Paper with 45% being accepted by the European

Council. Another 10% were put forward by the Commission by the end of 1989. The delay in passing those proposals into European law can be explained by the fact that the European Council usually decides unanimously on whether to pass a proposal before it becomes European law. The alternative system is by qualified votes (54 out 76 with Germany, UK, France, and Italy having 10 votes, Spain 8, Belgium, Greece, Netherlands, Portugal 5, Denmark and Ireland both 3, and Luxembourg with 2 votes). This is used for certain decisions on research and technology, and regional policies. The commission is pressing for passing more proposals by qualified votes as this would speed up the preparation for the Internal Market. Although a lot has been achieved, certain physical, technical, and fiscal barriers, have to be overcome to reach the vision of a frontier-free Europe by December 31st, 1992.

Tieman (1991) is confident that all directives will be implemented in national laws by the end of 1992 whereas Hotze (1992) commented in Welt am Sonntag that despite of over 80% of the directives of the Single European Act being ratified by the European Parliament transition into national laws seems to be a slow process. The British Government is well in the lead with over 111 directives already being British law. Germany is lagging behind with over 100 and Italy at the bottom of the list with only 67. Moreover Hotze notes that out of the 50 remaining directives which still have to be ratified 35 are absolutely essential for the successful transition into the Single Market. At the top of the priority list is still the sovereignty of the control over foreigners, status and control of people coming into member states from outside the EC, the right of seeking asylum, transport of nuclear waste, and the "European Public Ltd.". Despite these areas of concern the European Commission and Parliament is confident of achieving its goals as article 100 of the EC law states that,

if necessary, the implementation of directives into national law can be forced onto member states.

### 3.3.1. Physical barriers

Border controls, the most obvious physical barrier, do not only bring about physical constraints but also are an enormous cost factor. The economy is unnecessarily burdened with costs for clearance, transport, and reloading of goods each time they have to cross a border. This increases overall costs of a good and therefore weakens the competitive position. Nevertheless one has to accept that custom controls - both for people and goods - have

- 1. fiscal.
- 2. trade- and economic- political,
- 3. health political,
- 4. statistical, and
- 5. security justifications.

Especially in times of threats by drug misuse and terrorism it seems difficult to assure security while abolishing border controls. Therefore it seems sensible to separate custom controls for people and goods. There are two main reasons for controlling a person crossing a border: immigration controls and taxes/duties. Within the next two years the European Commission expects all necessary laws to have passed in order to abolish these controls totally. There will be one single European passport and also one single visa policy. This has already partially been achieved between Germany, France, Belgium, Holland and Luxembourg due to the implementation of the Schengen Agreement.

Although in the Schengen states border controls have been facilitated, in many countries it is still a time consuming procedure to move goods into other member states. Before January 1st, 1989 some 70 different

documents were in use throughout the community for customs purposes: documents for tax claims, collection of statistical data, control of plant and animal diseases, control of ex/imports of goods needing approval, quota controls, prevention of imports of dangerous goods etc. In January 1989 these documents were replaced by one single administration document which facilitated cross border movements considerably saving time and money for companies and haulage contractors. This should have happened when the Customs Union was founded in 1967 which replaced national customs by the Common Customs Tariff. Unfortunately it was unsuccessful due to the continued existence of controls. Therefore it is the commission's aim to transfer controls either to the producer or to the customer especially as regards health or safety/security aspects.

#### 3.3.2. Technical barriers

These include various aspects:

- "Free movement of goods"

For the free movement of goods most obstacles root in the different standards and legal requirements - as regards safety, health, environment or consumer protection - for their production which differs among member states. Cars and TV sets have to undergo various modifications to comply with various national standards, British chocolate can not be sold in some member states because there "chocolate" is defined differently. The German and Italian purity laws for beer and pasta are other examples. This had led to many fierce discussions because the question arose where the "level" of a European standard can be allocated. Several rulings of the European Court of Justice laid down the framework for the future course of action which states that any product legally sold in one member state has to be accepted in all other member states. Unease exists as many industries see their higher standards being watered down by foreign lower standards which seem to undermine their competitiveness especially in national markets.

Obviously different views have to be merged to reach technical harmonisation throughout Europe. The consumer should be offered the highest level of choice amongst products and services but concurrently be provided with the highest level of protection as regards health and safety. This means a product can only be prevented from being traded if it does not comply with community legislation. It can not be blocked from entering a market for pure reasons of competition. Hopefully this will result in cost reductions through economies of scale - companies produce for wider markets using only one standard or design - followed by lower

prices and wider product choice. In a document of the Amt für amtliche Veröffentlichungen (1989) two main steps for achieving this are stated:

- 1.) National legal regulations as regards production and trading (concerning human health and safety) are going to be dependent on the legislation for harmonisation by the community. These laws shall establish a compulsory framework of safety levels and protective norms whereby the concrete regulations for their practical application falls into the domain of the European executive bodies for standards and norms.
- 2.) Those national legal regulations not concerning the aspects mentioned under (1) will no longer be taken into account by community legislation but will be subsummized under the mutual recognition scheme between member states which means that appeals have to be made to the European Court of Justice in cases of doubt. Unnecessary efforts for harmonization can be avoided and moreover many detailed, time and labour intensive community decision-making processes as regards regulations, especially in complex technical areas, become pointless.

## - "Free movement of people"

The free movement of people within the European community is not only dependent on the abolition of border controls but also on their right to settle and enter profession in a country of their choice. It is still the case that many restrictions as regards property acquisition, profession, capital movements etc. exist. One of the problem areas is the different European education systems. Employers find it hard to assess the value of foreign degrees or the skills of craftsmen. National differences seem hard to be

overcome although the community has tried hard to bridge existing gaps since the 1960s. Major progress has been made in areas like health. Education of doctors, dentists, nurses, veterinary surgeons, and midwifes has been harmonised and consequently they can practise in any EEC member state. Equivalent progress has been made in agriculture, mining, electricity, gas, and water services. But it is alarming to note that negotiations take a disproportionally long time (e.g. architects 17 years and chemists 16 years).

#### - "Free movement of capital"

As regards capital movements, within the European Community a high degree of liberalisation has already been achieved. The ultimate aim of the commission is the total liberalisation of transactions of means of payment within the community in form of cash money or any other money transfer. It is necessary to liberalise all financial services and establish fair competition between those providing such services, but also to protect savers and investors within the community. Moreover a total liberal capital market has to be monitored as regards the balance of payments between individual member states and the risk of tax evasion by companies or individuals. On June 13th, 1988 the European Council accepted a proposal which widened this framework of liberalisation into areas like short-term securities, current account and deposit transactions, and credits and loans. This means that an EEC -citizen can open a bank account or seek for a bank loan in any member state of the EEC (see Table 3.3.)

Table 3.3. The four-step Process of the Liberalisation of the European Capital Markets:

1.) 1960 Liberalisation of financial transactions that are directly linked with the

movement of goods, trade credits, and the possibility of direct investments.

2.) 1977 The first coordination bank guide-line:

Harmonisation of the trading approvals of banks between member

states and means of screening

3.) March 1,1987 Abolition of all restrictions concerning trade credits, trade of shares not

traded at the stockmarket, and approval of regulations for shares to be

traded on the capitalmarket.

4.) **June 30,1989** The second coordination bank guide-line:

acceptance of investments and other repayable funds

borrowings (consumer credits, mortgages, factoring, trade

financing including financial discounting)

financial leasing

handing out and administration of means of settlement (credit

cards, traveller cheques, bank cheques)

sureties and other obligations

trade in own or customer's name

financial market instruments (cheques, bills of exchange)

exchange deals

financial futures and options

exchange rate and interest rate instruments

bonds and shares

money broker deals in inter bank trade

portfolio administration and advice

storage of bonds, shares etc.

trade information

safe-deposit box administration

Source: Informationsdienst des Instituts der deutschen Wirtschaft, 1988; Nr.31. / Frehner, W.G.,
"Kernfragen für das Schweizerische Bankenwesen" in Neue Zürcher Zeitung; Oct 10, 1988

#### - "Public Procurement"

Public Procurement accounts for 15% of EEC GDP, over \$600 billion annually (1988 figures) but as Lamoriello (1988) states: "However, existing EC regulations, mandating open and transparent bidding procedures among EC memberstates, are inadequate." Moreover he quotes an EC study which notes that 75% of public purchases - falling under EC regulations - are not carried out according to those regulations. The Amt für amtliche Veröffentlichungen der europäischen Gemeinschaft quotes in 1989 that only 2% of public contracts are met by companies in other memberstates than those advertising the contract. In the public sector most purchases are made according to national criteria rather than by weighing price, quality and after sales service. "Moreover, important sectors , such as telecommunications,transport, water, and electric utilities are not covered by the EC Procurement Directives" (Lamoriello 1988). Therefore it is almost inevitable that the public sector suffered for a long time from overpriced products and/or lower quality. In 1989/90 talks have started in order to incorporate the service sector (water, energy, transport and telecommunication) into a European Public Procurement scheme.

### - "Legal and administrative barriers"

The non-existence of a legal framework for cross border activities of enterprises from all member states has lead to a plethora of possible projects which were never put into reality. As cross border trade is more and more increasing this led to the creation of European Economic Interest Groupings (EEIG). "The purpose of an EEIG is to provide a structure through which two or more companies can pool resources and skills to enhance the economic activities of its members. The new Regulation 2137/85 creates a legal framework through which this can occur, thus permitting firms to co-operate more freely. It does so by raising legal,

financial and psychological barriers which have hindered cross-border cooperation in the past." (Dudley 1990).

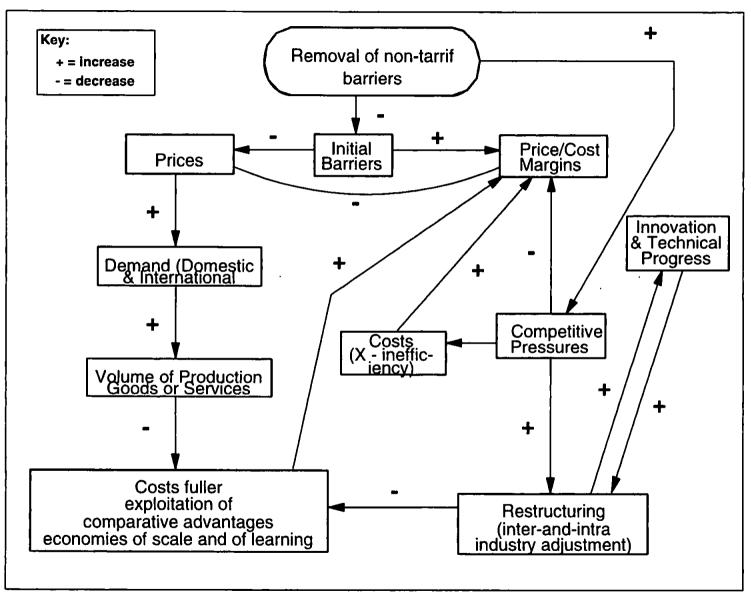
#### 3.3.3. Fiscal barriers

Obviously the tax authorities are most interested in border controls. Whenever a good crosses a border it is registered for allocating the taxable value as regards V.A.T. and any other excise duties. Consequently a border-free Europe requires ways of making sure that these taxes and duties are paid on time and to the right tax office. The aim of harmonising indirect taxes has been the community's goal for a long time. Nevertheless many totally different tax systems exist in the 12 member states. Moreover the perception of how political goals can be achieved through tax legislation vary immensely. If one only looks at indirect taxes like V.A.T. the five most important excise duties (tobacco, beer, wine, spirits, mineral oil) it becomes obvious how differently certain countries use them in order to influence the economy and consequently the spending behaviour of the population. For example Belgium, Germany, Italy, and Spain generate less than 10% of its GDP through indirect taxation. In contrast Ireland generates 16% of its GDP through V.A.T. and excise duties (Berger 1991). Up to now the scale of V.A.T. ranges from 0% in the UK and Ireland for food to 38% for some luxury goods in Italy. These luxury taxes only exist in Belgium, France, Greece, Italy, Portugal, and Spain. In some countries like Germany a lower and a higher V.A.T. rate exist. Therefore harmonisation of differing national V.A.T. and excise duties seems to be an immense task. Berger (1991) already questions if the suggested V.A.T. bands of 4-9% and 14-20% can be implemented by 31st December, 1992. Moreover there is the underlying danger that the harmonisation process rules out any special agreements for certain areas which then will cause profound cuts in national earnings if no basic tax reform takes place (Hadler 1988).

In the long run there is also the proposal to harmonise direct taxes which obviously will cut into the autonomy of each member state because taxes are one of the most probate means to influence a country's economic cycle. The following proposals exist:

- one single tax system for mergers, splits, or inclusions of parts of an organisation into a corporation concerning more than one member state
- 2. harmonisation of corporate tax through implementation of partial allowances
- 3. arbitration to avoid multiple taxation in cases of `profit correction` between related organisations
- 4. harmonisation of fiscal legislation as regards transfer of losses
- 5. harmonisation of fiscal legislation as regards ascertaining of profit and loss
- 6. one single tax system for companies with subsidiaries in different member states

This indicates that the commission accepts the fact that the adaptation process in some member states will progress much quicker than in other as regards V.A.T. and other indirect taxes but that a harmonisation as regards direct taxes is by many still perceived as an utopia like one single European currency.



Source: The Cecchini Report 1988

Figure 3.3. Flow market integration chart of micro economic effects triggered by EC

#### 3.4 The Economic Impact of The Single Market

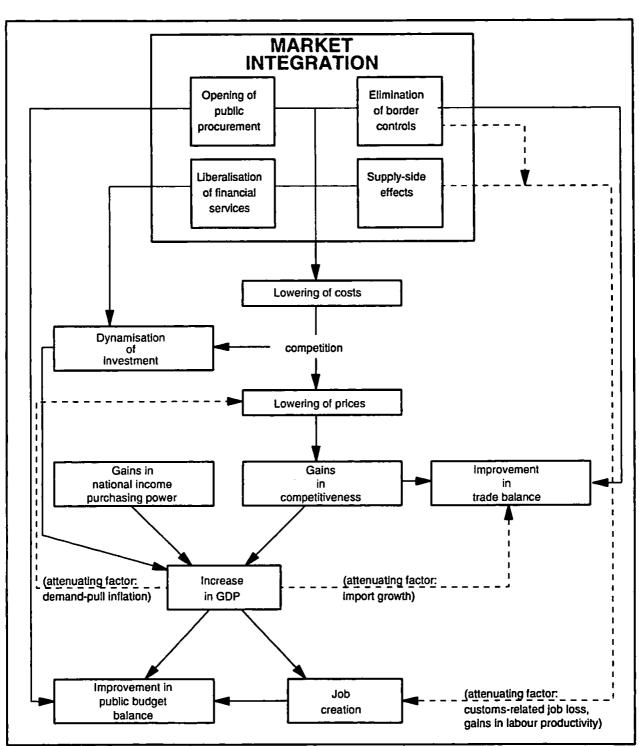
One of the most important reports on the benefits of the Single Market is Paolo Cecchini's research on the "Costs of Non - Europe" published in the book "The European Challenge 1992 - The Benefits of a Single Market" (1988). In his report commissioned by the European Communities, Cecchini profiles the European community home market and estimates the costs of its absence and the gains to be made by converting these costs into benefits. He examined the opportunities for growth, job creation, economies of scale, improved productivity and profitability, healthier competition, professional and business mobility, stable prices and consumer choice. His findings identified micro and macro economic effects likely to be changed by the creation of the Single Market.

The micro economic effects summarized in Figure 3.3. propose that the removal of non - tariff barriers leads to a direct reduction of initial costs and, given stable competitive conditions, to lower prices. Moreover barrier removal increases competitive pressures which, in turn, trigger increasing price reductions and pull prices down towards costs via an impact on profit margins.

Cecchini estimated that macro economic processes summarized in Figure 3.4. will:

- 1. trigger a major relaunch of economic activity, adding on average 4.5% to EC GDP
- 2. simultaneously cool the economy, deflating consumer prices by an average of 6.1%
- 3. relax budgetary and external constraints, improving the balance of public finances by an average equivalent to 2.2% of GDP and

Figure 3.4. Principal macro-economic mechanisms activated in the course of completing the internal market



boosting the EC's external position by around 1% of GDP

4. boost employment, creating 1.8 million jobs; although unable of itself to make big inroads into the present stock of unemployment, the effect would nonetheless be to reduce the jobless rate by around 1.5 percentage points" (Cecchini 1988)

The economic impact of the changes described in Figures 3.3. and 3.4. are summarized in Table 3.4.:

Table 3.4. Macroeconomic consequences of EC market integration for the Community in the medium term 3

	Customs	Public	Financial	Supply-		Total	
	formal-	procure- ties	services ment	side Avera effects 1 value		-	
Relative changes (%)							
GDP	0.4	0.5	1.5	2.1	4.5	(3.2-5.7)	
Consumer prices	-1.0	-1.4	-1.4	-2.3	-6.1	(-4.57.7)	
Absolute changes						•	
Employment (millions)	200	350	400	850	1800	(1300-2300)	
Budgetary balance (% point of GDP)	0.2	0.3	1.1	0.6	2.2	(1.5 - 3.0)	
External balance (% point of GDP)	0.2	. 0.1	0.3	0.4	1.0	(0.7 - 1.3)	

Source: Hermes (EC Commission and national teams) and INTERLINK (OECD) economic models 2 Notes;

Since Cecchini's report in 1988 his estimates have been revised by numerous authors. Lamoriello (1988) and Calingaert (1988) reviewing

<sup>1</sup> Based on a scenario which includes the supply-side effects estimated by the consultants, economies of scale in manufacturing industry and competition effects (monopoly rent, X-efficiency)

<sup>2</sup> The INTERLINK simulations have been carried out by the commission departments. The OECD has no responsibility for the use of the model.

<sup>3</sup> taken from Cecchini, P. (1988) "1992 The Benefits of a Single Market"

Cecchini's findings supported his conclusions. Baldwin (1989) suggests in his analysis "The growth effects of 1992" that if one only takes account of the medium - run growth effect, Cecchini's estimates on the impact of 1992 on EC income have at least to be doubled and might be even higher. This is due to the fact that Cecchini's report ignores the dynamic effects of the Single Market like more innovation, faster productivity gains, greater investment, and higher output growth and concentrates solely on its one-off effect on resource allocation.

Chiappori (1989) claims that even Baldwin's estimates are too cautious as he believes that pro - competitive effects of 1992, if any, are more likely to favour real growth in the long run - in which case the results are probably underestimated. But there are also opposing voices from Baimbridge and Burkitt (1991). They conclude that these very large gains calculated by Cecchini are best-case estimates at the top end of a range of possibilities. One of the latest comments on Cecchini's report comes from Hotze (1992) who states that several factors, not foreseeable by Cecchini's team of statisticians, have altered the scenario to an extent that most of the estimates now have to be reexamined. These are Germany's reunification with mounting costs both for Germany and the EC, the end of "the cold war", and hence the breakdown of the former Soviet Union which directs economic interests increasingly to the East.

#### **CHAPTER 4**

## STRATEGIC MANAGEMENT ISSUES AND THE SINGLE EUROPEAN MARKET

## 4.1. Possible Strategic Responses to the Single European Market

Hamel (1988) is convinced that the Single Market will continue to see regional conflict within Europe as countries and businesses compete vigorously for preeminence. In his view the UK faces an enormous competitive challenge in a united market, since Europe is the gateway to a global battle. The goal for 1992 is to establish a base that will allow European firms to challenge US and Japanese companies both within and outside of Europe (Ohmae 1985) which seems to be possible by establishing a new and different management-philosophy in European management (Bleicher 1991). UK companies will have an opportunity to get closer to continental consumers who are often more sophisticated, a situation that will push UK development and innovation. Global competitiveness in this arena is a function of the following:

- 1. products and technology
- 2. cost and quality
- the ability to develop international markets through global brand dominance and building distribution channels and market position.

Szydlowski (1988) states that in order to compete successfully in the 1992 Single European Market, British industry must now undertake effective planning which requires a definition of corporate objectives and a formulation of the strategies necessary to support them (The Commission of the European Communities 1988; Adams und Angenvoort undated).

Obviously this applies to any industry in any of the member states. Research analysis of the marketplace, market share, competition, products, staffing levels, and financial needs should form the basis of the Single Market business plan. Meaningful scenarios and contingencies can then be created to guarantee the plan's controlled development (Vandermerwe and Vandermerwe 1991). The design and implementation should be an evolving process, and objectives need to be clearly communicated along the management chain (Giles 1991). Shared values and commitment of the entire organization facilitate the process (Grundy and King 1992; Johnson 1992). Regular review of progress and performance is important.

Mitchell (1989) suggests that 1992 offers a "superb opportunity for seizing a competitive advantage by focusing on the key areas offering most reward to skilfully applied change ... adopting a conceptual approach to strategic positioning, focusing, control, organization, and acquisition". Furthermore The London Business School believes that unifying the market means that strategies of acquisitions and alliances, together with the rationalization of manufacturing, logistics, and marketing will give a competitive edge to those companies and their managers that want to operate European-wide (Multinational Business Journal 1989). Meiklejohn (1989) believes, that as managers in the UK prepare for 1992, the use of information technology (IT) seems to be absent on a large scale. IT will play a key role in enabling firms to transform organizational structures and compete successfully in the new marketplace. He quotes a recent large-scale survey which found that more UK firms are poorly prepared to gain optimum business benefits from information technology than any other major European country. Only 9% of UK firms have formulated integrated information technology plans to account for the Single

European market and only half of the firms felt a need to integrate their information technology into their business plans for 1992.

Carrington (1989) states that despite the Department of Trade and Industry's (DTI) "1992 Open for Business campaign" only 60% of businesses with more than 100 employees seem to have formulated some kind of Single Market strategy and only 21% have also included some form of training or management development. As the author states few companies and managers have done more than acknowledging the fact that Single Market strategies are a worthwhile thing to do, a view shared by Thatcher and Pitman (1988) and Gofton et al (1989).

Hamel (1988) and Sadler (1989) note there is little evidence to suggest that UK companies will be prepared to cope with their competitors once the doors of Europe are opened in 1992. The Single Market is the last opportunity for European companies to enter into strategic alliances and joint ventures to be able to compete world-wide with the powerful global 1985). Major competitive enterprises within the "Triad" (Ohmae weaknesses of UK companies are insufficient investment in research and development and in training. Unfortunately only those companies that have successfully avoided failure are now the strongest advocates of strategic management. Sadler (1989) notes that the UK's major industrial task for the next decade must be to succeed in the education of top managers, a view shared by Jenkins (1992). One possible approach is to more forcefully highlight Britain's marketing successes. The key to longterm vision and strategy lies with corporate leadership.

Charsley (1989) points out that only a small element of UK commerce and industry seems to be aware of the opportunities - or disasters - that await

companies in 1993 when the Single European Market becomes a reality. He is convinced that European business has been provided with one of the greatest opportunities of the century and it should respond to the challenges associated with this opportunity. This will require reorganization to improve effectiveness of operations and administration and therefore Charsley favours an Operational Improvements Programme which is specifically designed to improve and then maintain a firm's profitability and organizational effectiveness. The program can be applied to both operating problems and office work.

Buigues and Jaquemin (1989) conclude, while looking at business strategies and the structural environments in the Single Market, that while companies have to evaluate their competitive position and implement the appropriate actions they must also take into account the structural characteristics of the sector in which they operate. Differential impacts of the EC integration can be identified by studying the typology of sectoral environments which leads to different strategies adapted. Moreover they point out the specific roles of restructuring, concentration and co-operation between European firms in that context which could strengthen their geographical coverage and brand position. Farrands (1989) confirms this view by using the example of the food processing industry.

Higgins and Santalainen (1989) state that the Single Market scenario will have the following key effects on strategies and strategists:-

- General management must take on the challenge or will lose out without realizing it
- 2) Lack of strategy will be punished severely
- 3) Major change in the competitive environment

- 4) European CEOs must have the characteristics necessary to operate in this very different environment
- 5) Firms with high marketing skills will immediately seize the new opportunities
- 6) Small countries have initial advantages because of established export orientation

Mitchell (1989) distinguishes between three types of companies in the pre-1993 scenario:-

- 1) The successful *Eurocompany* which will have a shallow hierarchy, a clear vision of 1992 and its position in it, and will view Europe as a base for competing globally.
- 2) The Eurogropers which are actively rethinking the distribution of financial resources in relation to a changed opportunity mix in a Single Market
- 3) The *Eurodoomed* which are confident that growing markets will continue with basically the same players.

Daems (1990) sums up the entrepreneurial responses to the European Single market by categorizing them into three groups:-

- 1) Eurosceptics: those who believe it is a fiction due to endless quarrels in the past giving evidence it will never work. They ignore the facts and do not see any reason to adjust their European strategies
- 2) Eurobashers: those who think it is a smoke-screen behind which Europe is building a fortress of tradebarriers against its world competitors, mainly the USA and Pacific basin countries like Japan, in order to force them to react. They lobby politicians for more restrictions imposed on their access to the Single Market but hardly see any reason to redesign their

strategies.

3) Europhorics: those who envisage a United States of Europe, with one language, one culture, one currency and even one president and busily redesign their European strategies from the scratch probably to realize that they were planning for Eurotopia.

Daems argues that he has encountered all three of these stereotypes while discussing strategic implications of 1992 with companies but that none of them is the correct response. Therefore the question must be raised of what are the real implications to business and its management and what has to be done?

Hunsicker (1989) states while looking at the strategic possibilities for survival in the Single Market that those companies which are not actively involved in choosing their appropriate role will be severely punished as "heightened competition will shake out the laggards in many industries". He moreover predicts that the widely acknowledged "big is beautiful" syndrome is not necessarily the panacea for success as sustaining "critical mass" across all the business' functions (R & D, Purchasing, Manufacturing, Distribution and Logistics, Marketing, Sales/Merchandising/Service) in the post-1992 environment is a more discriminating concept. Hunsicker therefore suggests to "carefully assess critical mass requirements step-by-step in the business system and then selectively eliminate individual bottle-necks" which vary from industry to industry. This will enable the company to choose its distinctive role which could either be a regional, international niche or a global position. Hunsicker points out new strategic possibilities such as:-

- 1) business system integration
- 2) functional specialism

3) developing business hybrids which is a combination of (1) and (2) in addition to established strategies like integration and diversification

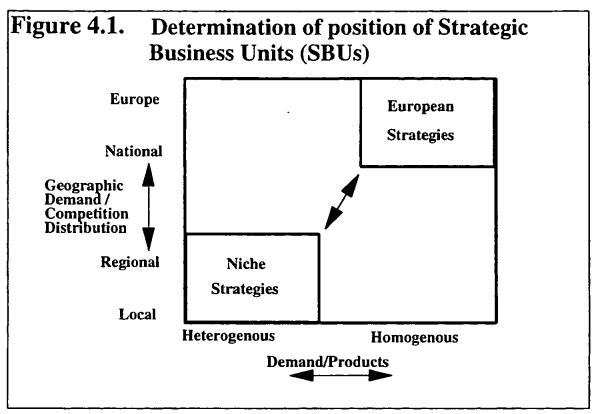
Moreover Hunsicker shares Mitchell's (1989) view that in Europe only those companies with shallow hierarchies will be competitive in the future. Daems (1990) uses Porter's 5 forces as an analytical approach to examine how 1992 will shape competition. After considering the issues of rivalry, buyer power, entry of new competitors and threat from substitutes, Daems concluded that as regards the strategic implications five fundamental questions have to be raised:

- "1.) Will the company's competitive position be sustainable as competition heats up?
- 2.) What can the company do to shore up its position?
- 3.) In what European markets should the company compete and how should the company serve those markets?
- 4.) How should the company use its existing production facilities?
- 5.) Where should the company locate its various value activities?"

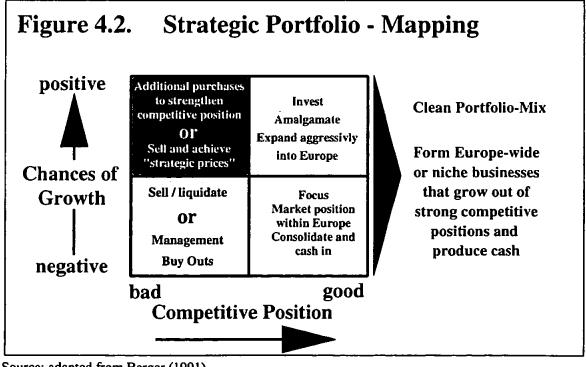
Atamer (1991) concludes that a strategy for success implies that companies efficiently define favourable segments, apply commercial and technological innovation but put utmost emphasis on organizational innovation, a point Charsley (1989) stressed earlier. Moreover, he continues, that rapidity of response, training capacity - crucial to UK industry (Sadler 1989; Jenkins 1992), the ability to manage different forms of alliance, and the general level of creativity will be more important than the mere company size (Hunsicker, 1989).

Toepfer (1991) outlines the important steps to be taken for successfully "Europeanizing" a company:-

- 1.) Installing an 'EC '92 project team'
  - all important business functions are brought together in a workshop
- 2) Collecting all Single Market information
  - build up Euro-market research
- 3) Diagnose all possible changes in the company's industry
  - market development
  - structure and reactions of competitors / intermediaries / customers and defining their possible implications
- 4) Implications to own business
  - definition of portfolio situation of each strategic business unit
- 5) SWOT analysis of own business
  - degree of EC preparedness
- 6) Formulation of goals and content of Euro-strategy
  - investment/desinvestment in each strategic business unit
  - definition of how and with which intensity markets will be exploited
  - timetable for action
- 7) Financial implications of the adopted strategy
  - realisation of intermediate steps through external funding,
     cash-flow and recovering fixed costs
- 8) Checking possibilities of co-operation for optimizing capacities and reducing costs per item
  - making arrangements with possible partners at early stages
- 9) Consequences for organisation and management



Source: adapted from Berger (1991)



Source: adapted from Berger (1991)

10) Preparing management and employees for changes in EC market develop europeanized thinking

Similarly Berger (1991) favours a 7 step process he calls 'corporate restructuring' which should be implemented by a company-internal "Europe 1992"-project group which consists of internationally experienced managers from different functional areas:-

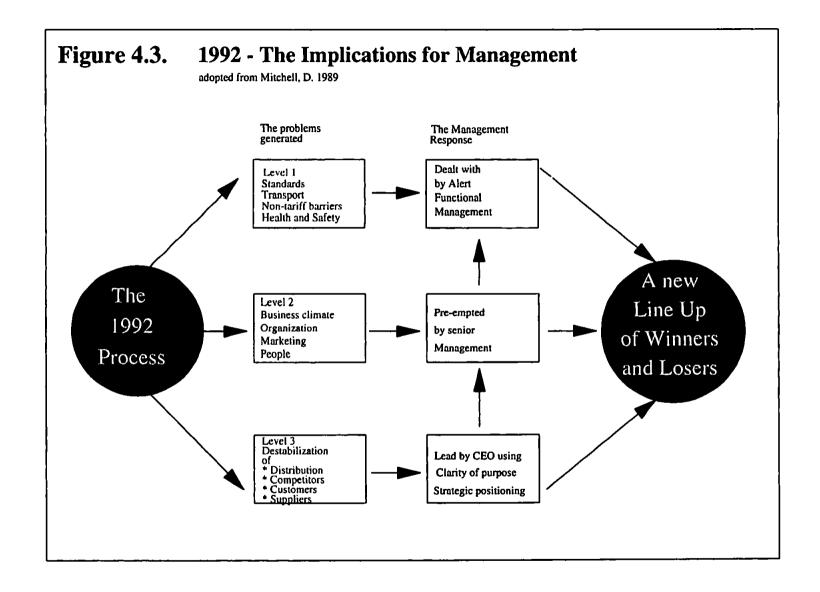
1) Determining the position of all strategic business/enterprise units with regard to Europe after 1992;

Questions to be raised are:

- In which countries are we represented?
- What is our market share in each of them?
- How attractive are the relevant markets?
- Which success factors and entry barriers determine these markets?
- Which trends in consumption dominate the markets?
- How are we perceived in these markets?
- What are the cost-rising and internal factors versus the market price?

This leads to the basic decision: "European strategy versus Niche strategy" (Toepfer 1991) which depends on the two dimensions of

- a) how homogeneous is demand and supply and
- b) if economies of scale, demand, and competition depend on geographical factors.(see Figure 4.1.)
- 2) Strategic Portfolio Mapping, involving exact evaluation of the strategic direction for each strategic business/enterprise unit (Figure 4.2.)



- Development of a creative Corporate Finance concept for financing European activities.
- 4) Optimizing size of enterprise for European Dimension in order to achieve economies of scale;
- 5) Euro Logistics as an Euro-orientated concept in order to optimize cost per item in sales, supply, production and management of materials;
- 6) Euro Marketing and Euro Innovation which comprises focusing on innovative efforts and marketing strategies
- 7) Euromanagement: Europeanization of the management, organisation, and of the corporate culture.

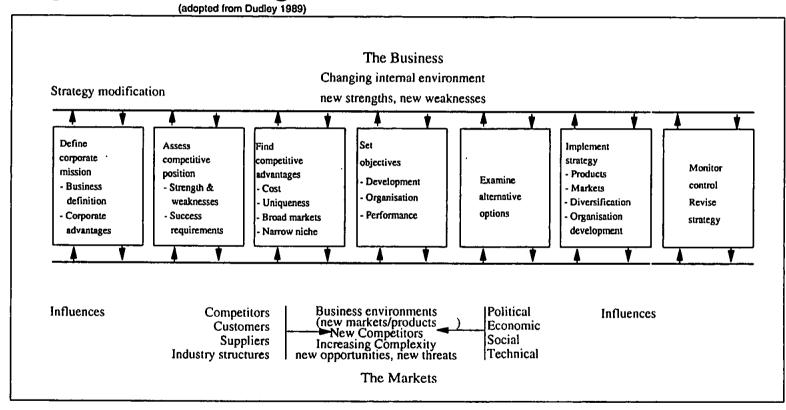
In developing the 7 step model, Berger clearly has drawn on earlier studies and frameworks (see also Figures 4.3. and 4.4., Mitchell 1989; Figure 4.5., Dudley 1990)

One of Germany's established consultancy agencies Dr. Höfner & Partner also favours a 6-step approach to prepare a company for the Single Market which is very similar to those proposed by Toepfer (1991) and Berger (1991). This approach is summarized by Volk, H. (undated) in a report by Dr. Höfner & Partner who come forward with a matrix that outlines how different types of companies are affected by the Single Market environment and which strategic options and operative short-term measures are applicable (Figure 4.6.).

A common feature of these works is that most, if not all of them, draw upon the well known and widely acknowledged analytical pattern which are used to determine a company's competitive position and formulating a strategic plan: Mission statement, SWOT-analysis, PEST-analysis, Mc Kinsey's 7'S, Porter's 5 forces model, and Porter's model of generic

Figure 4.4. The 1992 Opportunity adopted from Mitchell, D. 1989 Strategig Positioning Germany Customers France Focusing The UK **Distributors** Organization Single Italy BeNeLux -Competitors Market Control Spain Aquisition Strategy Suppliers Others The Concepts The appearance of a new The 1988 Confusion and The Players to gain Strategic and Destabilization Markets Competitive Equilibrium Stage Competitive Advantage

Figure 4.5. A Strategic Framework for 1992



competitive strategy, Value chain. etc. Hardly any authors points out new ways in strategic 1992/1993 thinking and if so most attempts still leave a fragmented picture especially as they only look at certain aspects of existing models which contributes little to establish a comprehensive approach which could be widely adopted. One issue, however, is addressed in all literature on 1992/93 and that is the time issue (Dallmer 1989; Guido 1991; Bannock et al 1992).

The company that is proactive rather than reactive, has some strategic 1992 plan rather than none, reviews, assesses and re-assesses its position constantly, and invests in Euro-orientated staff development and training is most likely to have the competitive edge in the new European business environment (Hutchinson and Brickau 1992).

# Figure 4.6. EEC Orientation and Action Frameworks (adopted from Dr. Höfner und Partner, undated)

EEC-relevance  Definition of enterprise	Degree to which affected by EEC	Chances and Risks	Strategic Options	Operative Short-term implications
Big Corporations - fully internationalized - global activities - comprehensive intern. know-how	- Only partly affected - EEC market is only one of several	- Already "thinking" in world market terms - Very good chances to implement new opportunities	- Aquisition - Concentration - Attack	- Operative measures are already world-wide, orientated concepts
Medium to Big - partly internationalized - subsidiaries abroad - autocratic control - foreign country expertise - internationally trained staff	- Strongly affected both in the national and EEC market	- Chances outweigh risks as EEC markets are well-known - Possible threats on national markets	- Aquisition - Diversification - Expansion - Co-operation - Attack	- Search for partners/allies - Intra-organisational EEC orientation - Fortifying international aspects - Development of international organisational structures
Medium sized - small export activity - no international subsidiaries - national emphasis - no international organisation - restricted financial resources - little human resources	- Strongly affected on home terrain - To a lesser degree affected in export markets	- Through re-active behaviour strong threats - Through pro-active behaviour multiple opportunities	- Co-operation - Merger - Niche strategies - Defense	- Intensifying the aquisition of EEC information - Staff development - Establishing Contacts with other member states - Identifying potential new markets - FEC orientation of the company
Small / Medium-sized - regional activities - owner-manager - no international orientation - no ex/import activities	- Not directly affected	- strong risks in areas which are not not normally monitored - Chances through co-operation and alliances	- Activities through co-operatives - Search for allies	- Intensifying the aquisition of EEC information - Enforce activities through co-operations

## 4.2. The SME sector and the Single Market.

Birch (1979) concluded that 81.5% of new jobs were generated by firms with less than 100 employees, leading to the suggestion that an economic revival strategy for Europe should focus more on the SME-sector. This view had already been stated earlier in the Bolton Report (1971), later confirmed by the Wilson Report (1979) and Curran (1986), reviewing the implications of the Bolton Report for small business research in Britain . Also Bannock (1976) came to the conclusion that SMEs are the pillars of the European economy stating that approx. 32% of GDP are created by SMEs in the UK compared with 46% in West-Germany. But he moreover noted that "small business cannot be satisfactorily defined in terms of employment, turnover, output, or any other arbitrary single quantity" which constrained meaningful research on a European scale. Burns and Dewhurst (1986) see some improvement as regards statistics and figures but raise doubt on their validity and moreover are concerned about definitions of SMEs as they differ widely from one country to the other. Four major features were outlined that could help to characterize the SME-sector:-

- 1.) The size of the sector
- 2.) The effect of national policies
- 3.) National culture
- 4.) The availability of finance

Birley (1989) stated that due to the lack of comprehensive directories of small firms and no easily accessible mailing lists it is difficult to find reliable and consistent statistics on the total size and membership. For example in the U.K. the sector is defined as 'companies with 200 employees or less.' Fortunately the European Commission has now

adopted a European definition of the sector "as including all firms with less than 500 employees, with net fixed assets of less than 75 million ECU, and with not more than one third of its capital held by a larger firm.". Thus one can only rely on estimates which talk of the SME-sector as accounting for approx. 95% of all enterprises in the European Community (Commission of the EC 1985), and employs between 34% (UK) and 59% (Belgium) of the manufacturing workforce (OECD 1985). As regards the 'private sector employment' in France, 42% of the workforce are employed in companies with less than 100 employees and 49% in the Netherlands (OECD 1985).

Looking at E.C. Policy on Small and Medium-Sized Companies an anonymous article in the magazine 'Europe'(1988) stated that the completion of the Single European market represents both an opportunity and a risk for SMEs. To help SMEs keep track of legislation and opportunities open to them, European information centres for firms, called Euro-Info Centres (EIC) were established. Areas in which the Commission assists in promoting co-operation between firms in different member countries include research, competition, and training. Moreover EC-loans were made available to SMEs.

Tigner (1988) notes that within the European Community's SMEs most people are unaware of the changes that are beginning to happen. In the face of increasing concentration of assets in the business community, the European Commission created in June 1986 a new SME Task Force with the aim to:-

- i) help create conditions in which the legal and administrative business environment met the needs of the European economy
- ii) encourage the creation of new firms and the development of small businesses

iii) set a coherent framework for the ways in which other

Community policies were implemented through the enterprise sector.

The Task Force faced the problem of how to define the nature and size of the SME sector in Europe. Sue Birley (1989) stated: "It is not a small, easily identifiable, relatively homogeneous group of firms but rather a large, diverse, and heterogeneous set of individuals, anxious to avoid contact with 'authority' as much as possible." The Commission aimed to create an independent network of Community information services to meet the needs of SMEs. The Euro Info Centres attempt to funnel all sources of EC information relevant to the SME into this single service station but the numerous requests for partnership searches gave rise to another program, the Business Cooperation Network, which provides direct business-to-business contacts. This network is the first of its kind in Europe. Unfortunately, concerns about confidentiality make some businesses wary of divulging too much information (Tigner 1989).

The European Community's (EC) Directorate-General (DG) XXIII, upgraded from the SME Task Force in 1989, looks after enterprise policy, distributive trades, tourism and cooperatives, and the interests of SMEs (Hancock 1991). Impact assessments are the means by which the DG XXIII tries to block new burdens on business. Additionally the Business Co-operation Network as a fully computerized system is aimed at helping firms find partners, even in their own country, but more specifically in other member states. The Europartenariat aims to bring together firms located in the less developed regions and those in industrial decline with potential partners in other member states. The latest project funded by the EC is 'Eurogateway' which is aimed to help SMEs to make the

transition into other member states, by providing expert advice and cheap credits for purchasing or renting sites for a trial period of three years (Mering 1992).

Corsten and Lang (1988) conducted a survey in order to analyze the behaviour of SMEs in the European Community in the area of technology transfer in order to make recommendations for the future evolution of the process. The focus was on the following aspects:-

- 1.) technology transfer between universities and private enterprises
- 2.) technology transfer between private enterprises.

#### The results revealed that:-

- 1.) Approx. 70% of the enterprises keep a continuous watch on new technologies in other companies.
- 2.) A large proportion of European patents are applied for by SMEs.
- 3.) Only a few enterprises have sold technologies to other enterprises on the basis of licenses or other know-how contracts.
- 4.) Lack of financial means is considered to be of only medium importance, which contradicts mainstream thinking.

Binks et al (1990) stated that throughout the European Community, the SMEs rely mainly on the banking sector for external finance. Although the potential sources of external finance to SMEs in the UK have expanded recently, debt finance supplied through banks is the most common source of funding for new and growing businesses. The two main finance shortfalls shown by the UK experience concern finance for growth and finance for long-term investment projects (Brickau and Trinder 1991). Binks et al (1990) believe that the process of liberalizing financial markets will undoubtedly lead to an increase in competition in the banking sector.

It can be hoped that this will lead to more opportunities for expanding SMEs in the post-1992 period.

Crossick (1990) notes that since 1985, there has been a steady increase in mergers and acquisitions in Europe. The increase in mergers, joint ventures, and strategic alliances will probably be sustained and is likely to accelerate with 1993 only a short time ahead. This will have inevitable effects on SMEs because of the changes to the marketplace and the reduction in the number of big firms to be served. Of special interest to SMEs in the Single Market is the removal of barriers. SMEs will benefit from the cost reductions resulting from liberalization. Subcontracting is increasingly becoming a strategic choice for business which could favour SMEs. To exploit new Single Market opportunities and defend themselves against the threats, SMEs should prepare themselves putting particular emphasis on human resources. Moreover Crossick argues that SMEs should concern themselves more with the changing market than with the EC's legislative program. He moreover stresses that SMEs should make use of the comprehensive information resources provided by the EC.

Berney (1990) sees the 13.4 million SMEs in Europe as the key to its economic dynamism, innovation, and job creation which provide the base on which large global companies succeed. But she believes that SMEs in the European Community will be unable to take full advantage of the Single Market because they have a scarcity of both human and financial resources. Most SMEs are not actively trying to extend their geographical reach, but are pinning their hopes on building a better product. These firms are underestimating the effect of the Single Market on their business. SMEs need partners in Europe to survive, whether they be customers, distributors, strategic allies, or even new owners. Many SMEs

remain reticent, possibly because partnership, implying shared control, is an alien and frightening concept to most of them.

As Tigner (1990) states, using the example of Belgium, national characteristics across Europe are quite diversified which means that policy decisions may have very different effects on both aspirations and behaviour in different countries, and that these effects may not always be quantifiable or forecastable, a view shared with Birley (1989). These can be:

- different VAT thresholds with a multitude of interlocking "unregistered" firms like in the UK
- in Italy firms with more than 15 employees have to unionize. As a result there is a plethora of companies with 14 employees under one ownership causing a considerable sub-optimization of growth potential in these firms.
- welfare of the family and close community is not a strong motivator in Scandinavian countries (Alange, et al 1988) but is very important in Italy and Portugal.
- In Sweden, academics are allowed to hold the patent and the copyright of intellectual property developed in the university even when they are only teaching part-time and have a business as well.

#### CHAPTER 5

#### RESEARCH AIMS AND METHODOLOGY

#### 5.1. Research Aims

The conclusion to be reached from the literature is that considerable research has been undertaken on strategic planning in both large corporations and the SME sector. While a more comprehensive and clear-cut picture of strategic planning techniques has been established in large corporations, literature on strategic planning in SMEs is of a much more fragmented nature and seemingly without consensus (d'Amboise 1986). Different authors have determined and categorized a plethora of alternative strategic planning and management approaches for SMEs (Pearce and Robinson 1985, d'Amboise 1986, d'Amboise and Muldowney 1988) but as d'Amboise concludes: "No two writers propose exactly the same model; in fact each strives to differentiate his model from any other known, so as to make a contribution to the field ... authors have few reference points on which to base their planning orientation".

It could be argued that one way of overcoming the confusion caused by these different approaches is to simply employ in the SME sector the same strategic planning and management techniques that have proved successful for large companies. But since smaller companies differ so significantly from larger corporations, it follows their strategic planning should differ also (d'Amboise 1986). Langer (1988) argues that planning techniques employed in large corporations are principally neutral to the size and the nature of the business but still could not be adopted in smaller companies without profound alterations. Brytting (1990) states that many surveys have substantiated the view that concepts in

traditional business management for large companies are not appropriate for smaller business. They tend to have a rather rationalistic bias and fail to capture the intricate and complex relationship between the small firm and the owner-manager. He concludes that on the one hand smaller companies are organised by relatively rational and well-known processes. On the other hand they are only partly an economic or rational phenomenon. This leads to the necessity of adopting new approaches which incorporate the spontaneous (ad-hoc) and emotion-lead character of the smaller company. Bamberger (1983) also reflected on this dilemma and refers to the value systems of the owner/manager as important determinants of strategies in SMEs. He moreover points out the underlying problem of that SME objectives and strategies are not rationally based.

Hence, if it is generally valid that SMEs should employ strategic planning and management techniques different from those used by larger companies it seems reasonable to suggest this same logic should apply to the Single European Market scenario.

Previous researchers examining strategic Single European Market orientation have primarily focussed on the response of larger corporations rather than looking at the particular requirements of the SME sector (Axford et al 1991). Most literature on general strategic planning in the Single European Market (Tietz 1989, Berger 1990, Lynch 1990, Dudley 1990) or more specifically concerned with European Marketing Management (Vandermerwe 1989, Tietz 1989, Daems 1990, Meissner 1990, Guido 1991) contains very little of specific relevance to the SME sector.

Many leaflets and booklets exist from institutions such as the DTI or Chambers of Commerce claiming to offer advice for the SME owner manager seeking to respond to the Single European Market. Unfortunately, all merely superficially analyse the current situation but do not give comprehensive advice on developing a Single European Market business plan.

A few academic publications focus on the SME sector and the strategic implications of the Single European Market. Burns and Dewhurst (1986) establish profiles of the SME sectors in seven different EC member states in relation to profitability, productivity, taxation, financing, and the role of Government. Birley (1989), Crossick (1990) and Witte (1991) only state the obvious problems of SMEs in the Single European Market scenario without offering advice on a comprehensive strategic approach. Weber (1992) attempts in a limited way to incorporate some strategic advice for SMEs in his publication. He identifies three different types of companies in relation to size and export activities, but only offers generalized options including how co-operation between smaller companies could enhance survival in the Single Market environment by applying his "5C-method" (Compatibility, Capability, Commitment, Confidence, Credit worthiness).

At the outset of this research project it was assumed that literature would provide approaches to strategic planning of SMEs in the Single European Market environment which would be tested to see whether companies employed these in their strategic response to the post-1992 scenario. But it has to be concluded from the literature that very little is yet known about possible SME strategic response frameworks for the Single European Market.

The literature, however, validates the hypothesis that "SME firms should employ strategic planning processes suitable for their specific requirements through which to develop an effective response to the Single European Market environment."

The strategic planning process requires companies to follow four fundamental questions which can be called the basic cornerstones of strategic business planning:-

- "1) Where are we now?
- 2) Where do we want to be?
- 3) How will we get there?
- 4) What must we do to get moving?"

(Chartered Institute of Marketing 1992)

Companies should take these four questions into account if they want to improve their performance or merely want to survive. It is therefore feasible to adopt a working hypothesis that "companies, irrespectively of their size and nature of the business, can be expected to use these basic four questions irrespective of whether they adopt formalised strategic plans or informal approaches to planning." Thus, as the intention of this research is to acquire further understanding of possible Single European Market strategies which SME companies could adopt, the research aims can be derived from these four basic strategic planning steps. The research aims generate a multi-phase research process and sub-hypotheses can be defined for each of the different phases (Figure 5.1.).

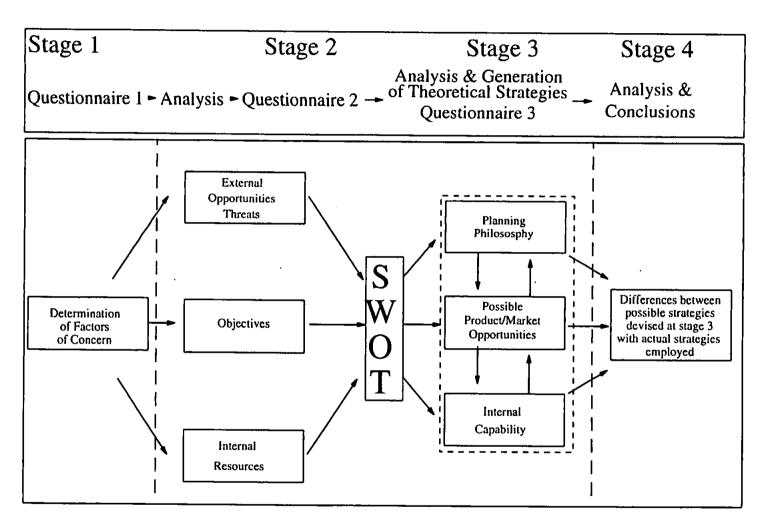


Figure 5.1. Framework for Research

1) The first phase of the research examines the question of "where are we now?". The subsequent sub-hypothesis can be formulated as: "SME companies following a basic strategic management approach have a clear understanding of the nature and the importance of external and internal factors introduced by the implementation of the Single European Market."

The research aim for phase one is, therefore, to:-Identify which internal and external factors SME companies consider as important or unimportant in the new Single European Market environment:

2) The second phase of the research examines "where are we now" in relation to "where do we want to be?" The subsequent sub-hypothesis can be formulated as "SME following a basic strategic management approach have a clear understanding of the positive or negative impact of external and internal factors their establishment introduced by on the implementation of the Single European Market"

The research aim for the second phase is to:-Examine whether these factors represent possible weaknesses, threats,

strengths, or opportunities to those companies:

Having identified those factors that have been rated by a majority of companies as important or even very important the question arises why certain factors have been rated as being important. Do they represent advantages or disadvantages? Companies might perceive a factor as important because it represents a threat or an opportunity which needs exploiting. The same question arises for internal weaknesses or strengths. Responses should therefore provide a SWOT - analysis for SMEs in the Single European Market environment.

3) The third phase of the research examines the question of "where do we want to be" in relation with "how will we get there?". The subsequent subhypothesis can be formulated as "Determining disadvantages and advantages of SMEs in the post-1992 environment it is possible to devise theoretical strategic response frameworks for maintaining or gaining competitive advantage"

The research aim for the third phase is to:-

Identify possible theoretical Single European Market response frameworks for SME firms seeking to actively respond to the Single European Market scenario:

By establishing which internal and external factors are perceived as advantages or disadvantages amongst different types of SMEs in the Single European Market environment, it will be possible to identify possible theoretical frameworks which SMEs could employ as a suitable response in the post-1992 environment, incorporating approaches found in SME strategic planning literature.

4) The fourth phase of the research examine "how will we get there?" and "what must we do to get moving?". The subsequent sub-hypothesis can be formulated as "SME companies actively responding to the challenges of the Single European Market have devised a strategic business plan, different to their domestic one and have incorporated all factors of importance which have been identified at earlier stages."

The research aim of the fourth phase, therefore, is to:-

Evaluate the nature of the Single European Market strategies used by SMEs and whether

- a) these represent a specifically modified strategic response different from those previously employed within their domestic market
- b) they reflect incorporation of identified factors into their strategic planning activities:

# 5.2. Methodology

Having defined the research aims it was decided to restrict the research to a sub-set within the SME sector. As the Plymouth Business School is the prime source of expertise on SME support services in the UK South West it was logical to research firms in this region of the UK. The South West is defined as comprising the counties of Cornwall, Devon, Somerset, Dorset, Gloucester, Wiltshire, and Avon. Within the SME sector, the specified subset of the food sector was selected because:

- 1. It is likely to be severe impact by new European legislation and regulation (Farrands 1989; Daems 1990)
- Various trade organisations in the South West (Unicorn, DCDC, Taste of the West) or operating nationally (Food from Britain) were able to assist in gaining responses from companies within the industry
- 3. The researcher's prior work-experience in the food industry

It was recognized that there is a need to determine whether variables identified by respondents were specific to the South West or were applicable to SMEs anywhere in Europe. Hence a parallel survey was planned for German food companies in order to make cross-national comparisons.

This central group was selected because:-

 Germany is seen as economically very involved in the Single Market (Berger 1991)

- German SMEs are considered as very active within Europe (Davis 1991, Simon 1992) and the German food sector is perceived as very competitive (The Grocer 1987)
- 3. Prof. Dr. Laufner of the Fachhochschule für Wirtschaft in Dortmund offered assistance on gaining responses from the industry
- 4. Prior industrial experience of the researcher in the industry provided accessibility to an appropriate sample frame

#### **Data Collection:**

Data collection for the different phases of the research incorporates mainly quantitative research. Responses given to quantitative research describe mainly the extent or the frequencies of aspects researched (Riley and Palmer 1976). But it was also intended to use qualitative research methods e.g. in-depth interviews if any phase of the research project required this technique. Gordon and Langmaid (1988) state that this could be the case for scenarios which want to increase understanding, expand knowledge, or explain motivations, attitudes, and behaviour. The main difference to quantitative research is therefore that qualitative research answers primarily questions like "how, why, and what" (Webb 1992).

Phases 1,2, and 4 of the research program employ mail survey techniques for data collection. Webb (1992) states that "if the size of the interviewerinduced error is likely to be large or its magnitude can not be predicted with any degree of accuracy and if costs are an important factor when deciding on the data collection method, then mail questionnaires should be given serious consideration". As the researcher's nationality is German, both the nationality of the interviewer and potential language problems can provide interviewer-induced error. This technique also enables the researcher to generate data from a larger number of individuals across a wide geographical area. Moreover, ever more sophisticated programmes (e.g. SPSS-PC) make it easier to design and analyse more comprehensive and complex questionnaires (Foster 1992). During the course of this research project SPSS-PC software will be used to calculate frequencies, means, and carry out cross-tabulations, F-tests, factor- and cluster-analysis.

A major criticism of mail surveys lies with relatively low response rates. A normal response rate without any kind of follow-up is less than 10% (Clifton et al 1992). Low response rates are a potential source of bias as they may destroy the randomness and the representativeness of the sample (Erdos 1974). It is of importance to minimize non-response. Therefore while designing the mail surveys of this research Forsgren's (1989) recommended techniques were to be taken into consideration:

- 1) Perception of questionnaire as being current and important
- 2) Appeals to a business population are altruistic
- 3) Use of follow-up letters or cards
- 4) Incorporation of proper design
- 5) Assurance of anonymity if sensitive questions are asked
- 6) Use of stamped return envelopes

# 7) Provision of prepaid money incentives

Dillman (1984) recommends using individually signed covering letters with personal salutations. The speed and ease with which the questionnaire could be completed should be emphasized in the covering letter. Letters should be mailed first class emphasizing importance and stimulating prompt reply. In the covering letter and on the cover page of the questionnaire all collaborating institutions should be listed to boost the importance of the survey (Webb 1992). Webb also recommends offering the respondent to receive a copy of the final results of the survey. Finally questionnaires should be pre-tested in order to amend any ambiguities or sources of error. As can be seen from the questionnaires attached in Appendix 1, all of these recommendations were incorporated in the final designs of the questionnaires.

Tull and Hawkins (1990) provide a sequential set of steps for designing questionnaires:-

- 1) Initial consideration
- 2) Question content
- 3) Question phrasing
- 4) Types of response formats
- 5) Question sequence
- 6) Questionnaire layout
- 7) Pretest, revision and final version of the questionnaire

This format was adopted throughout the design phases of all three questionnaires. Moreover individuals within the collaborating establishments were invited to provide useful comments throughout the design phases. Pre-tests of all questionnaires showed that potential

respondents expressed no obvious problems with completing the questionnaires.

# Questionnaire 1.) Determination of factors of importance

The primary aim of this phase of the research is to determine which external and internal variables are perceived by SME firms as important influencers of competitiveness or performance within the Single Market. Factor selection was accomplished through using a survey commissioned by the European Community/Brussels which looked at factors shaping regional competitiveness (IFO-Institut 1990) and by using research done by Bamberger (1989) on competitiveness in SMEs. Additionally, respondents are given the opportunity to specify any factors they believe to be of importance which have not been mentioned in the questionnaire. All questions in the survey are multiple choice questions which only require to tick the relevant boxes. The following provides a brief summary of the questions included in the questionnaire:

#### Questions 1 - 6b

are profile questions which aim to gather information about the nature of the company, main activities, product groups, the type of business (i.e. independent or subsidiary), number of employees and how long the company has existed at the current location. Included are two very detailed questions about export and import activities which will give valuable information on which countries are chosen by the responding SMEs as trading partners in their international business activities.

Table 5.1. Variables used in Survey 1

NATIONAL ECONOMIC FACTORS	REGIONAL PACTORS	COMPANY SPECIFIC PACTORS
Exchange rate	Proximity of customers	Supplier links
Income/corporate tax	Proximity of suppliers	Product quality
Cost of borrowing	Proximity of similar companies	Product innovation\development
Availability of risk capital	Financial services availability	Production capacity
Economic growth rate	Marketing serv. avail.	Advert, budget
Inflation rate	Skilled labour avail.	Price strategy
Direct labour costs	Machine service avail.	Distribution channels
Employee benefit costs	Transportation infrastructure	Internal comm- unication systems
Employment laws and regulations	Energy supply avail.	External comm- unication systems
Govt. industrial policy	Cost of energy	Staff capability for Europe
Legal regulations	Telecommunications	Admin. capability
Govt. procedures (e.g. for grants)	Waste disposal availability	EC accounting procedures
	Waste disp. costs	Credit manag.
	İndustrial site avail.	Links with other firms in region
	Social climate	Links with firms elsewhere in UK
	Housing costs/avail.	Links with firms elsewhere in EC
	Education & training facility availability	Information on EC regulations
	Semi-skilled labour availability	Product inform. elsewhere in EC
	Non-skilled labour availability	Pricing inform. elsewhere in EC
	Proximity of training facilities	
	Proximity of Universities., research institutions	
	Regional policy incentives	
	Local Govt. co-operation	
	Marketing co-operatives	
	Regional taxes	

These details provide filters for deciding which companies should be included in the survey. Moreover, these data will make it possible to split responding companies into different subgroups for cross-tabulations and discriminating analysis such as F-tests or cluster analyses.

#### **Question 7**

invites respondents to rate the importance of sources of competition to their establishment. It is intended to cross-tabulate this question with questions on export or import activities.

### Questions 8 - 10

ask respondents to rate different national, regional, and companyspecific factors according to their perceived importance in the emerging European Single Market business environment. The factors used are summarized in Table 5.1.

# Questionnaire 2.) The SWOT Scenario (Disadvantages and Advantages)

This phase of the study is to determine which of the factors identified as most important in phase (1) are seen as representing a strength, weakness, opportunity or threat to SME companies in the European Single Market environment. Companies are provided with a list of key factors generated by the first survey and asked to define the degree of perceived advantage or disadvantage to their company. All questions are multiple choice. Having analysed the responses to this survey and identified strengths and weaknesses, opportunities and threats these provide the basis for a SWOT-analysis.

Key issues covered by the questionnaire include:-:

#### Questions 1 - 5

are profile questions very similar or identical to those used in questionnaire one. They aim to accumulate information about the nature of the company, its main activities and main product groups, the type of business i.e. independent or subsidiary, number of employees, and for how long the company has existed at the current location.

Table 5.2. Variables used in Survey 2

NATIONAL FACTORS	REGIONAL FACTORS	COMPANY SPECIFIC FACTORS
Cost of borrowing	Proximity of customers	Product quality
Economic growth rate	Skilled labour avail.	Product innovation\development
Inflation rate	Transportation Infrastructure	Production capacity
Direct labour costs	Energy supply avail.	Price strategy
Employee benefit costs	Cost of energy	Distribution channels
Employment laws and regulations	Communication systems	Internal communication
Govt. industrial policy	Waste disposal availability	Staff capability for Europe
Legal regulations	Waste disp. costs Social climate	EC Bus. Admin. procedure
	Local Govt.	EC accounting procedures
	& flexibility	Information on: EC regulations
		Product inform. elsewhere in EC
		Pricing inform. elsewhere in EC
		Links with suppliers (e.g. in EC)

### Question 6

uses a scale of 'strong disadvantage', 'some disadvantage', 'neither advantage nor disadvantage' to 'some advantage' and 'strong advantage' to assess respondents' views on each factor. Table 5.2. summarizes the factors extracted from survey 1 for use in survey 2.

# Questionnaire 3) Actual strategies employed by SME companies

The outcome of the second survey indicated that respondents in both countries are at some difficulty trying to establish whether factors, rated as crucially important in the first survey, present internal strengths and weaknesses or external threats and opportunities. It was therefore impossible to constitute a comprehensive SWOT-analysis which would have formed the basis for a theoretical strategic response framework to the Single European Market for SME firms. As a consequence the methodology for the third stage of the research programme had to be adjusted to take this development into account. The third questionnaire therefore attempted to establish the strategic planning frameworks, SME firms are currently using, being faced with the implementation of the Single Market. To avoid response bias and concurrently overcome the potential problem that some respondents may not have a formalised strategy, firms were asked to indicate which of the approaches mentioned most clearly described their business activities. All questions in the survey, except 25 and 34, were multiple choice questions.

Responses were then used to interpret the actual strategies utilised by SME companies in the food industry and to constitute a strategic planning framework currently in use. This framework then would be compared with theoretical frameworks proposed by other writers in order to establish whether these are congruent. In the case of incongruence it would be attempted to develop a framework of the strategic planning approach established via the outcome of the survey. Implications for future research would be discussed.

The key issues covered by the questionnaire include:-

#### Questions 1 - 5

are profile questions which aim at getting information about the nature of the company, main activities, product groups, markets (export activities), the type of business (i.e. independent or subsidiary), number of employees, and for how long the company has existed at the current location.

# Questions 6 - 9

deal with the company's management philosophy as regards strategic planning, company goals and objectives.

#### Questions 10 - 18

look at the company's market opportunities by examining factors such as market coverage, market sectors, product-quality, product innovation, product life cycle, pricing, marketing communications, and competitive forces and competitive advantage.

## Questions 19 - 33

deal with the company's internal capabilities by looking at factors such as production capacity, product and production technology, age of production facilities, employees' skills, product development and R&D, financial resources, procurement, logistics, management style and skills.

# The sample:

Webb (1992) states that a sampling frame should have the following characteristics:

1) Each element should be only included once

- 2) No element should be excluded
- 3) The frame should cover the whole of the population
- 4) The information which is used to construct the frame should be up to date and accurate, i.e. only those elements which truly meet the research's objectives should be included.
- 5) The frame should be convenient to use "

For the UK South West sample, mailing lists from Food from Britain, the Union of Cornish Producers, Taste of the West, Devon & Cornwall Development Bureau, and the exhibitor's catalogue of 'The Annual Catering & Retail Food Exhibition' at the Plymouth Pavillions/1991 was used to establish a comprehensive mailing sample frame. The sampling method used is 'non-probability sampling' (Parasuraman 1991). All possible establishments of the food & drink sector in the defined area of the seven UK South West counties were included in the survey. It can be assumed that findings are representative of the UK South West food & drink sector.

The German sample frame was derived from the following sources. A visit to the 1991 ANUGA food & drink exhibition in Cologne/Germany, one of the biggest exhibitions of its kind, provided a list of German companies for the first survey. Secondly, close personal contacts to the central office of a major retail chain in Germany provided additional addresses. Thirdly, the member lists of the 'Fördergemeinschaft für Qualitätsprodukte aus Baden-Württemberg e.V.' and the **Verband** Schwarzwälder Schinkenhersteller' provided additional addresses for an appropriate German cross-sample. The use of the same profile questions as in the UK survey insured compatibility of the two samples. The German sample is also a non-probability sample.

#### Chapter 6

#### Results

## 6.1. Results of the first survey

Completed survey forms were received from 107 UK South West and 89 German companies. This represents an overall response rate of 44% and 37% respectively. However, it was decided that a few responses had to be discarded as they were either filled in insufficiently or because, in one case, the respondent consistently ticked the same box (neither important nor unimportant) for all questions resulting in a non-usable response (Parasuraman 1991). Some companies appeared not to fit into the category of being small to medium-sized and therefore were also discarded. This left 102 UK South West and 87 German companies in the sample used for analysis.

Companies in both countries showed a very similar pattern as regards the type of establishment. Firms were predominantly Single Site Businesses (Germany 70.1%, UK 72.5%) followed by Headquarters Units (Germany 14.9%, UK 10.8%) (Appendix 5, Figure 6.1.) 1). An inverse relationship was to be observed in the size of the establishments in terms of number of employees. SMEs in the German sample tended to be much bigger with 40.2% having more than 200 employees but only 4.6% having less than 5 employees. Firms in the UK South West sample were substantially smaller with 32.4% having 5 to 24 employees and 25.5% having less than 5 employees (Appendix 5, Figure 6.2.). A significant difference could also be observed as regards the time companies existed at their present location. 72.4% of companies in Germany have existed for more than 20 years at

<sup>1)</sup> Note: For convenience of reading Figures 6.1. to 6.39. are combined in Appendix 5.

their current location but only 37% of UK South West companies were to be found in that group. A much higher proportion of UK firms were found in the 1-4 years and 5-10 years bands. Assuming that not too many companies of the UK sample have moved to new locations over the past 10 years this suggests that the German SME companies, on average, appeared to be much older or longer established than their UK counterparts (Appendix 5, Figure 6.3.). These findings correspond with other, unpublished, research recently undertaken at the Plymouth Business School.

The breakdown of main product groups and main activities of German and UK South West SMEs is summarized in Appendix 5, Figures 6.4. and 6.5. It is intriguing that there seems to be more emphasis in the German companies on being actively engaged in R&D. Shaw and Doyle (1991) come to similar conclusions in their study comparing German and UK companies. In the case of the UK South West this could possibly also be linked to the overall smaller size of firms which in most cases would prohibit extensive R&D.

A high percentage (80%) of the German SMEs are active exporters compared with only 33.3% of UK South West SMEs. There is also a difference in import activities. 77% of the German companies import goods, whereas only 49% of the UK firms are importing from other countries. In both countries only a small number (7% - 8%) of the non-exporting companies intend to enter overseas markets in the near future (Appendix 5, Figure 6.6.). Companies from both countries export predominantly finished products. Primary export markets for the UK South West firms appear to be the EC, the USA and Canada followed by non-EC Europe, Asia, and Africa (Appendix 5, Figure 6.7.). The German

companies export mainly to other EC countries, non-EC Western European countries and Eastern Europe (Appendix 5, Figure 6.8.). UK firms place additionally great emphasis on the American and Canadian market. German companies are more interested in the European and particularly the Eastern European market for their exports. This is not surprising given the recent collapse of the former Eastern Germany and the subsequent opening of the Eastern Bloc for trade. The emphasis placed by the UK firms upon US and Canadian markets probably stems from the compatibility of the language and culture which facilitates trading (Chaston 1993). Goods and machinery imported by companies in both countries come predominantly from EC countries. Again there seem to be stronger links between Germany and non-EC Europe or Eastern European countries and for the UK, the USA and Canada (Appendix 5, Figures 6.9. and 6.10.).

As data were generated on a nominal scale, cross-tabulations with the Pearson chi-square test were used to examine the association between the size of the companies (number of employees) and their export/import behaviour (Malhotra 1993). The assumed null-hypothesis was that there is no association between company size and export/import behaviour. The original six categories for number of employees were grouped into three categories (1-24, 25-99, 100-200+) and companies which intended to import or export were discarded. The action was designed to minimize the risk of not fulfilling the criteria for chi-square tests of having empty cells or more than 20% of the cells with an expected frequency less than 5 (Foster 1992). There is evidence against the hypothesis that there is no relationship between size of the company and export or import behaviour within the English sample. No evidence could be established for the hypothesis of no relationship between import activity and size within the

German sample. A valid Pearson chi-square test for a relationship between export activity and size of German firms could not be carried out as more than 20% of the expected frequencies in the cells were below 5. However, the significance values for Pearson's chi-square suggest a possible association between size and level of export activity within the German sample. Combined UK and German company responses also revealed a significant relationship between the number of employees and involvement in exporting or importing. (Appendix 5, Figure 6.11.).

The same test was applied to establish whether there is a link between the age of the firm (years at location) and export or import activities. For the UK sample, the Pearson chi-square test showed evidence against the hypothesis of no relationship between export activity and the time an establishment has existed at its present location. No such relation could be established for import activity and existence at current location. The chi-square test for the German sample did not meet the required conditions. However, combining UK South West and German companies and grouping companies into bands of 1 to 4 years, 5 to 19 years, and 20+ years, established a valid chi-square test which suggests that there is a strong link between the age of a company and its export/import activities (Appendix 5, Figure 6.12.).

Differences between respondents from Germany and the UK South West could be observed in relation of possible sources of competition. Five different categories from 'not at all important', 'not very important', 'neither', 'quite important', to 'very important' were offered. Corresponding values between (1) for 'not at all important' to (5) for 'very important' were attached. Assuming the distances between values are equal provides an interval scale against which data can be quantitatively analysed. Mean

values for the four possible sources of competition could be calculated. These means indicated that UK companies rated competition from within the region as more important than their German counterparts. German companies rated competition from other EC countries and from countries outside the EC as more important than their UK counterparts. Hardly any difference was observed as regards competition from within national boundaries. Cross-tabulations using the Pearson chi-square test confirm this observation.

The distribution curves for the responses revealed a U-shaped distribution. Respondents either rated the source of competition as 'quite' or 'very important' or alternatively as 'not very important' or 'not at all important'. This dichotomy was more apparent for UK companies than for the German sample. This situation raised the question of whether other factors might influence companies' attitudes towards sources competition. Using cross-tabulations and the Pearson chi-square test for all respondents revealed no significant association between the age of the company (years at current location) and attitude towards competition. A highly significant relationship, however, could be established between size (number of employees) and attitude towards competition. The crosstabulations revealed that small companies tend to rate competition from within the region as most important whereas bigger companies tend to rate competition from within national boundaries and from other EC countries as most important. Using the same method to test whether export and import activities are linked with attitude towards competition only revealed a highly significant relationship between export activities and importance of sources of competition. It appeared that companies actively involved in exports and/or imports see the EC and countries outside the EC as important sources of competition. Companies not

involved in export and/or import activities perceive the most important source of competition as coming from within their region.

To establish which factors ultimately influence respondents' perceptions of the importance of sources of competition, hypothesis testing was used. Malhotra (1993) suggests that "Hypothesis testing procedures can be broadly classified into parametric and non-parametric, based on the measurement scale of the variables involved". Foster (1992) defines three assumptions for parametric tests:

- Observations are drawn from a normal distribution but the sample of scores drawn from it does not necessarily have to be normally distributed
- 2) There should be 'homogeneity of variance', but with larger groups it is acceptable if one groups has a variance double that of another
- 3) The data is measured on an interval scale

The data fulfilled the criteria for parametric testing. Within parametric hypothesis testing several different techniques exist and it is crucial to determine which of these is appropriate for obtaining valid results. Using multiple T-tests would not be acceptable for testing more than two groups simultaneously. Therefore a form of Analysis of Variance tests (ANOVA) had to be employed (Foster 1992). However, as the analysis for Question 7 is designed as a within-subjects (repeat measures) study where respondents can be simultaneously in different groups, a two-way ANOVA would be inappropriate. Therefore a multivariate analysis of variance (MANOVA) was carried out. The MANOVA test investigates differences between means. It also permits testing interaction between different groups. Such tests have been proved to be robust against deviation from

the underlying assumption of Multivariate Normality (Norusis 1990). The null hypotheses were that there was no interaction between the different groups and that there was no significant difference in the attitudes of non-exporters versus exporters, non-importers versus importers, and German SMEs versus UK South West SMEs towards the importance of sources of competition.

The results show that there is evidence against the conjecture of no interaction between import activity and export activity as regards attitudes towards sources of competition. The data suggests that export activities appear to be the stronger influencer of attitude. This is further highlighted by the F-test which provides evidence against the hypothesis that there is no significant difference between the attitudes of exporters and non-exporters towards the importance of competition from the EC and from outside the EC. No significant differences appear to exist for importers and non-importers or German versus UK South West firms. Therefore it can be stated that companies' perception of sources of competition is mainly influenced by their export activities and subsequently by increased contact with European competitors.

In sections 8, 9, and 10 of the survey companies had to rate different national, regional, and company-specific variables according to their perceived importance on a scale from 'not at all important', 'not very important', 'neither', 'quite important', to 'very important'. For the statistical analysis values between 1 (not at all important) to 5 (very important) were used to create an interval scale. Mean values were calculated for the following groups: German and UK South West companies overall, German and UK exporters, German and UK non-importers,

German and UK companies with the intention to export, and German and UK with the intention to import. The results, graphically described in Appendix 2, indicate differences between the various subgroups of the sample. Subsequently, all variables were ranked according to the mean values of responses within each group. At this stage it could be presumed, that there were differences in the responses between the different subgroups.

Differences between German versus UK South West firms and exporters versus non-exporters were observed by ranking the 20 most important variables in descending order. Some external or internal factors scored equally high in both UK South West and German firms (e.g. legal regulations, communication) with 'product quality' being the most important (Table 6.1.). Within the German sample the high scores of factors such as 'availability of skilled labour', 'social climate', 'capability of staff as European business procedures', regards and 'internal communication' suggest that the German firms place great emphasis on managerial aspects within their companies. These factors do not score highly within the UK South West sample. In the UK sample the most important factors are 'cost of borrowing', economic growth rate', 'inflation rate', and 'co-operation of regional authorities and flexibility of planning decisions'.

Table 6.1. Mean values of top 20 variables for UK and German companies

UR (TOTAL)	(MEAN)	GERMANY (TOTAL)	(MEAN)
I) PRODUCT QUALITY	(4.75)	1) PRODUCT QUALITY	44.70
2) LEGAL RECULATIONS	(4.60)	2) PRODUCT INNOVATION & DEVELOPMENT	(4.76) (4.63)
3) ENERGY SUPPLY (AVAILABILITY)	(4.54)	3) LEGAL REGULATIONS	(4.63)
4) COMMUNICATION	(4.51)	4) COMMUNICATION	(4.54)
5) LABOUR COST (DIRECT)	(4.48)	5) AVAILABILITY OF SKILLED LABOUR	(4.52)*
6) ENERGY SUPPLY (COST)	(4.48)	6) DISTRIBUTION CHANNELS	(4.51)
7) COST OF BORROWING	(4.45)*	7) WASTE DISP. (COST)	(4.48)
8) DISTRIBUTION CHANNELS	(4.32)	8) PRICE STRATEGIES	(4.46)
9) INFLATION RATE	(4.29)*	9) INFO ABOUT NEW EUROP.	(4.41)
10) PRODUCT INNOVATION & DEVELOPMENT	(4.22)	REGULATIONS & IMPL.  10) WASTE DISPOSAL (AVAILABILITY)	(4.39)
11) CONNECTION TO TRAFFIC NETWORK	(4.19)	11) CONNECTION TO TRAFFIC NETWORK	(4.37)
12) COMMUNICATION (EXTERNAL)	(4.17)	12) SOCIAL CLIMATE	(4.33)
13) ECONOMIC GROWTH RATE	(4.17)*	13) ENERGY SUPPLY (COST)	(4.30)
14) PRODUCTION CAPACITY	(4.14)*	14) LABOUR COST (INDIRECT)	(4.29)
15) INFO ABOUT NEW EUROP. REGULATIONS & IMPLICATIONS	(4.13)	15) COMMUNICATION (EXTERNAL)	(4.29)
16) FRICE STRATEGIES	(4.11)	16) LABOUR COST (DIRECT)	(4.25)
17) WASTE DISP. (AVAILABILITY)	(4.10)	17) CAPABILITY OF STAFF	(4.24)*
18) WASTE DISP. (COST)	(4.09)	18) ENERGY SUPPLY (AVAILABILITY)	(4.21)
19) COOPERATION OF REGIONAL AUTHORITIES & FLEXIBILITY OF PLANNING.	(4.00)*	19) COMMUNICATION (INTERNAL)	(4.20)*
20) LABOUR COSTS (INDIRECT)	(3.96)	20) PRICING STRUCTURES IN OTHER EEC COUNTRIES	(4.20)*

From table 6.2. it is apparent that the exporting companies place stronger emphasis on the 'availability of skilled labour', 'social climate', and the 'availability of information on pricing structures in other EC countries' than the non-exporters. These latter companies perceived 'cost of borrowing', 'economic growth rate', 'inflation rate', and 'proximity of customers' as more important than their exporting counterparts.

Table 6.2. Mean values of top 20 variables for exporters and non exporters

EXPORT	(MEAN) 	NO EXPORTS	(MEAN)
I) PRODUCT QUALITY	4.76	1) PRODUCT QUALITY	4.72
2) LEGAL REGULATIONS	4.61	2) LEGAL REGULATIONS	
3) DISTRIBUTION CHANNELS	4.56	3) DIRECT LABOUR COSTS	4.63
4) COMMUNICATION	4.55		4.49
5) PRODUCT INNOV.& DEVELOPM	4.50	4) COMMUNICATION	4.49
6) LABOUR-SKILLED		5) ENERGY SUPPLY:COSTS	4.48
7) TRAFFIC NETWORK	4.42*	6) ENERGY SUPPLY:AVAILAB.	4.39
	4.39	7) COST OF BORROWING	4.38*
8) ENERGY SUPPLY:COSTS	4.35	8) PRODUCT INNOV.& DEVELOPM	4.35
9) PRICE STRATEGIES	4.34	9) PROXIMITY OF CUSTOMERS	4.25*
10) INFORMATION ABOUT NEW EC REGULATIONS & IMPLICATIONS	4.34	10) ECONOMIC GROWTH RATE	4.22*
11) ENERGY SUPPLY:AVAILABILITY	4.27	11) INFLATION RATE	4.19*
12) WASTE DISPOSAL:COSTS	4.27	12) WASTE DISPOSAL:COSTS	4.19
13) WASTE DISPOSAL:AVAILABILITY	4.25	13) PRICE STRATEGIES	4.19
14) EXT.COMMUNICAT. SYSTEMS	4.25	14) WASTE DISPOSAL:AVAILAB.	4.18
15) DIRECT LABOUR COSTS	4.23	15) DISTRIBUTION CHANNELS	4.15
16) PRODUCTION CAPACITY	4.20	16) Information about new ec	
17) SOCIAL CLIMATE	4.19*	REGULATIONS & IMPLICATIONS	4.12
18) INFORMATION ABOUT PRICING		17) TRAFFIC NETWORK	4.10
STRUCTURES IN OTHER EC COUNTRIES	4.17*	18) EXT.COMMUNICAT. SYSTEMS	4.10
19) INDIRECT LABOUR COSTS	4.12	19) PRODUCTION CAPACITY	4.00
20) INT.COMMUNICAT. SYSTEMS	4.11	20) INDIRECT LABOUR COSTS	3.99

"Discriminant analysis" was used in order to identify those variables of the 56 national, regional, and company-specific variables in Questions 8, 9, and 10 that distinguish most clearly between the different sub-groups of the survey. Malhotra (1993) explains the basic concept and objectives of discriminant analysis as:

- " 1. Development of discriminant functions, or linear combinations of the predictor or independent variables, which will best discriminate between the categories of the criterion or dependent variable (groups).
  - 2. Examination of whether significant differences exist among the groups, in terms of the predictor variable.

- 3. Determination of which predictor variables contribute to most of the intergroup differences
- 4. Classification of cases to one of the groups based on the values of the predictor variables
- 5. Evaluation of the accuracy of classification."

The assumption for using this technique is that "each of the groups is a sample from a multivariate normal population and all of the populations have the same covariance matrix" (Malhotra 1993). Moreover, it is conditional that the criterion or 'dependent variable' is categorical and the predictors or 'independent variables' are interval in nature (Norusis 1990). These assumptions are fulfilled as questions Q6A and Q11 are measured on a nominal scale. The response to the different variables of Questions 8, 9, and 10 are measured on an interval scale because it is assumed that the distance between the different responses is equal. Discriminant analysis is often used as an exploratory tool (Parasuraman 1991) and the aim of the analysis was to determine which variables are strong discriminators between German and UK South West SMEs and exporters and non-exporters. Moreover, it is of interest to determine how well the discriminators distinguish between different groups. This would be achieved by the 'classification results' or 'hit ratio', a feature of discriminant analysis which classifies all cases entered according to the discriminant function and than analyzes in how many cases groupmembership was correctly classified. Determining discriminators was achieved by 'stepwise variable selection' through 'minimisation of Wilks' Lambda' as a selection criterion (Malhotra 1993).

29 of the originally 56 variables were selected to be good discriminators between German and UK South West SME companies. The discriminant model with these variables classified nearly 94% of all cases correctly.

Some authors suggest that the percentage of correctly classified cases should be at least 25% higher than that obtained by chance (50%) which would mean at least 75% (Hair et al 1992). In this case the 'hit-ratio' is much higher and therefore the model can be considered as appropriate analysis tool. All variables selected at the different steps are listed in Table 6.3.

Table 6.3. Discriminating variables between German and UK South West SME companies

Step	Entered	Action	Removed In	Vars Lambda	Wilks' Sig.	Label	
1	<b>G</b> 8D			1	.86342	.0000	AVAILABILITY OF RISK CAPITAL
2	Øae			2	.72020	.0000	MARKET SERVICES:ADVERTISING AGENCIE
3	<b>G</b> am			3	.60192	.0000	COOPERATION OF REGIONAL AUTHORITIES
4	BIOL			4	.54642	.0000	CAPABILITY OF STAFF
5	<b>Q</b> 9L			5	.51539	.0000	WASTE DISPOSAL:COSTS
6	Ö9C			6	.49105	.0000	PROXIMITY OF COMPAN. OF SAME NATURE
7	<b>G</b> 90			7	.47360	.0000	HOUSING
8	<b>Q</b> 9S			8	.45564	.0000	LABOUR-NON SKILLED
9	<b>G</b> 9X			9	.44080	.0000	COOPERATIVE MARKETING
10	<b>Ģ</b> 9U			10	.42618	.0000	PROXIMITY OF COLLEGES, UNIVERSITY ET
11	Ö <sub>9</sub> Ö			11	.40747	.0000	LABOUR-SKILLED
12	Ø10D			12	.39388	.0000	PRODUCTION CAPACITY
13	<b>G</b> ak			13	.38261	.0000	WASTE DISPOSAL:AVAILABILITY
14	Q8H			14	.37464	.0000	INDIRECT LABOUR COSTS
15	<b>₽8G</b>			15	.36000	.0000	DIRECT LABOUR COSTS
16	<b>G</b> aD			16	.35224	.0000	MARKET SERVICES:BANKS ETC
17	<b>Q</b> 81			17	.34392	.0000	LABOUR MARKET REGULATIONS
16	Q10E			18	.33783	.0000	ADVERTISING BUDGET
19	Q9R			19	.33206	.0000	LABOUR-SEMI SKILLED
20	Q8E			20	.32632	.0000	ECONOMIC GROWTH RATE
21	Q9P			21	.32087	.0000	SCHOOL EDUCATION & TRAINING
22	<b>G</b> 31			22	.31467	.0000	ENERGY SUPPLY:COSTS
23	<b>О</b> эн			23	.29980	.0000	ENERGY SUPPLY:AVAILABILITY
24	Q8C			24	.29571	.0000	COST OF BORROWING
25	O10H			25	.29136	.0000	INTERNAL COMMUNICATION SYSTEMS
26			8101	24	.29280	.0000	CAPABILITY OF STAPF
27	Øan			25	.28944	.0000	SOCIAL CLIMATE
28	Q10A			26	.28689	.0000	SUPPLIER LINES
29	Q8F			27	.28478	.0000	INFLATION RATE
30			Q8E	26	.28609	.0000	ECONOMIC GROWTH RATE
31	<b>Q10N</b>			27	.28377	.0000	Lines with others in region
32			Q10H	26	.28549	.0000	INTERNAL COMMUNICATION SYSTEMS
33			Q9E	25	.28723	.0000	MARKET SERVICES:ADVERTISING AGENCIE

The actual order of variable selection indicates their importance in discriminating between the groups (Malhotra 1993). The variable selected first is the strongest discriminator between the two groups. Table 6.3. also

shows that in the process of selection, four variables had been removed from the model. The selection of new variables resulted in the F-value of these four variables dropping below the default for selection of 1. The inclusion of these variables no longer led to an improvement of the model and therefore they were removed.

The same approach was used to determine those variables which are good discriminators between exporting and non-exporting companies. This time 23 variables were selected by the step-wise procedure. The 'hit ratio' showed that 87.5% of all cases were correctly classified. A result well above 75% which indicates that the discriminant model is very useful for discriminating between the two groups. All variables selected at each of the different steps are summarized in Table 6.4.

Table 6.4. Discriminating variables between exporting and non-exporting SME companies

Step	Entered	Action Removed	Vars In	Wilks' Lambda	Sig.	Label
1	g9C		1	.89982	.0001	PROXIMITY OF COMPAN. OF SAME NATURE
2	898		2	.79884	.0000	LABOUR-SKILLED
3	ខូនរ		3	.74430	.0000	INDUSTRIAL POLICY
4	<b>98D</b>		4	69624	.0000	AVAILABILITY OF RISK CAPITAL
5	g9a		5	.65670	.0000	PROXIMITY OF CUSTOMERS
6	<b>910G</b>		6	.62458	.0000	DISTRIBUTION CHANNELS
7	98E		7	59976	.0000	ECONOMIC GROWTH RATE
8	<b>99</b> E		8	.58160	.0000	MARKET SERVICES:ADVERTISING AGENCIES
9	<b>910M</b>		9	.56148	.0000	CREDIT FROM OTHER INSTITUTIONS IN EC
10	<b>88</b> 9		10	.54019	.0000	COUNTRY'S EXCHANGE RATE
11	<b>9</b> 10E		11	.51899	.0000	ADVERTISING BUDGET
12	9101		12	.50256	.0000	CAPABILITY OF STAFF
13	<b>9</b> 8C		13	.49234	.0000	COST OF BORROWING
14	8108		14	.48226	.0000	INFORMATION ABOUT NEW EC REGULATIONS
15	g9v		15	:47224	.0000	REGIONAL POLICY INCENTIVES
16	<b>98K</b>		16	46307	.0000	LEGAL REGULATIONS
17	<b>G10L</b>		17	.45390	.0000	ACCOUNTING PROCEDURES TO EC STANDARD
18	<b>G</b> an		18	.44632	.0000	SOCIAL CLIMATE
19	<b>6</b> 8D		19	.43782	.0000	MARKET SERVICES: BANKS ETC
20	<b>G</b> an		20	.42941	.0000	PROXIMITY OF COLLEGES, UNIVERSITY ETC
21	Q10A		21	.42284	.0000	SUPPLIER LINES
22	<b>910</b> R		22	.41754	.0000	INFORMATION ABOUT PRODUCTS IN O. EC COUNTRIES
23	gsh		23	.41309	.0000	INDIRECT LABOUR COSTS

The order of selection indicates the discriminating power of each variable. However, it has to be anticipated that the accuracy of classification for new cases is probably somewhat lower as the discriminant function coefficients are estimated and validated only on the base of the data obtained from this survey (Parasuraman 1991).

As respondents could be in more than one group simultaneously, a test of interaction between groups was required. Therefore a multivariate analysis of variance (MANOVA), using the F-test, was carried out for Question-sections 8, 9, and 10 using the null-hypotheses of:-

- a) no interaction between nationality of the company and exportingbehaviour and vice versa
- b) no difference in opinion between UK South West and German SME firms
- c) no difference in the opinion between exporting and non-exporting companies

Data were tested for interaction between the different groups, i.e. whether nationality had influence on the attitudes of exporting and non-exporting companies and vice versa. The significance values of Wilks' lambda in the multivariate test suggested that there is no evidence of interaction between nationality and export or non-export behaviour (Significance of F > 0.05). Therefore it can be concluded that attitudes of exporting and non-exporting companies are not affected by whether they are German or UK South West companies.

Both multivariate tests for the null-hypotheses of there being no difference in attitude between German and British and exporters and non-exporters showed Wilks' lambda values well below 0.05. This provided strong

evidence against both null-hypotheses and, hence, these were rejected. (Values of the univariate F-test generated for exporting versus non-exporting firms and for UK versus German firms are summarised in Appendix 3)

In the case of exporting versus non-exporting companies, of the 56 variables (12 national, 25 regional and 19 company-specific factors) which were rated according to their perceived importance, there were only eight variables (three national, three regional and two company-specific factors) where the null-hypothesis could not be validated. For these eight factors, there was a statistically significant evidence against the conjecture of no difference in opinion between exporting versus non-exporting firms. For these eight factors, five factors were considered by exporting firms as being more important in the Single European Market. Three variables were considered more important among non-exporting companies. These are summarised in Table 6.5.

The comparison between UK South West and German companies' attitudes indicated that the null hypothesis could not be validated for twenty variables (three national, eleven regional and six company-specific factors). Within this group of twenty variables, there was a statistically significant difference in opinion between UK South West and German firms.

UK firms considered five factors as more important influencers than their German counterparts. In the case of the remaining 15 factors where the null hypothesis was not validated, the German respondents considered these as being more important. All twenty factors are summarised in Table 6.6.

Table 6.5. Variables with significant difference in perceived importance between Exporters versus Non-Exporters

National factor: Regional factor: Company-specific factor:

Exporting companies perceive as more important;

1) Currency exchange rates.
2) Industrial policy (e.g. R&D incentives, energy pol.)

3) Regional policy incentives (e.g. labour or capital subsidies)
5) Information on pricing structures elsewhere in the European Community.

Non - exporting companies perceive as more important;
1) Economic Growth Rate
2) Proximity of customers.
3) Proximity of other similar producer companies.

Table 6.6. Variables with significant difference in perceived importance between German versus UK South West companies

National factor:	Regional factor:	Company-specific factor:
UK South West companies perc	eive as being more important:	
Availability of risk capital     Cost of borrowing	3) Availability of providers of machinery servicing. 4) Availability of non-skilled labour 5) Co-operation and flexibility of regauthorities (e.g. over planning decay.	gional cisions)
German companies perceive as	being more important:	
Indirect employee costs (social security, sickness benefits etc.)	<ol> <li>Proximity of customers</li> <li>Availability of providers of marketing services (consultants, advertising agencies, etc.)</li> <li>Costs of waste disposal</li> <li>Social climate (labour relations, trade union activity, etc</li> <li>Availability and cost of housing</li> <li>Availability of skilled labour.</li> <li>Co-operative marketing opportunities</li> </ol>	9) Links with suppliers within the EC. 10) Product innovation and development 11) Advertising budget 12) Pricing strategies. 13) Internal communication systems. 14) Competence of staff to manage European business procedures. 15) Ability to manage EC accounting standards.

The results of the multivariate analysis show some similarities with the results of the discriminant analysis. Many variables where a statistically significant difference in attitude between groups could be established using multivariate analysis also appeared to be strong discriminators in the discriminant analysis. However, the fact that the number of variables was substantially reduced during the multivariate analysis of variance (especially as regards the comparison of exporting and non-exporting companies) indicates, that the results of the discriminant analysis were influenced by interaction between the four groups, e.g. that the attitude of an exporting firm could have been influenced by its nationality etc..

Factor analysis was used to compress the relatively large number of 56 variables into a more manageable number. Factor analysis is "a technique that analyzes data on a relatively large set of variables and produces a smaller set of factors ... so that the set of factors captures as much information as possible from the original data set" (Parasumaran 1991). Variables are grouped according to how strongly they correlate with each other and the resulting factors are independent of each other. The outcome of the factor analysis could therefore give indications as regards which variables are strongly related with each other. The factors obtained could be used as independent variables in subsequent research steps. Bamberger (1989) showed the successful use of this method in his survey when applying it to a very large sample frame of 1135 European companies.

The results suggested that most variables in sections 8, 9, and 10 could be grouped into 15 factors. Several factors could be labelled such as 'personnel and their education & training facilities' (Factor 2), 'information

on EC issues' (Factor 3), 'labour issues' (Factor 5), 'provision of infrastructure' (Factor 7), 'sources of finance' (Factor 9), and 'macro-ecomomic factors' (Factor 11). However, other factors showed strong correlation between seemingly unrelated variables which made labelling virtually impossible. As labelling factors is a matter of personal judgement and interpretation, this proves to be one of the limitations of factor-analysis, especially when "variables with high factor-loadings have little in common" (Parasuraman 1991). On other occasions one would have assumed that the two variables grouped into factor 12 would have shown stronger correlations with the variables grouped into factor 2. A complete overview of all variables grouped into factors is shown in Table 6.7.

Table 6.7. Resulting Factors for Factor analysis of sections 8, 9, and 10 combined

Factor 1	Pactor 2	Pactor 3	Pactor 4
Communication facilities procedures (telephone, fax, etc) Internal communic. systems External communic. systems Product quality Distribution channels	Avail. of Skilled Labour Proximity of Vocational Training	(Trade Union activities, etc.)  Availability & Cost of Housing  Avail. & Quality of school education  Avail. of Skilled Labour	
Factor 5	Factor 6	Pactor 7	Factor 8
Direct Labour Costs Indirect Labour Costs Labour Market Regulations	Cost of Energy Supply Availability of Energy Supply Cooperation of Regional Authorit./ Flexibility in Planning Decisions	Cost of Waste Disposal Facilities Availability of Waste Disposal Facil. Industrial Sites (Cost/Possibility. of Expansion	Links with similar firms - in Region - within country - in EC
Pactor 9	Pactor 10	Pactor 11	Pactor 12
Cost of Borrowing Avail, of Risk Capital Credit from other institutions within EC	Servicing for machinery	Exchange Rate Income/Corporate Taxes Economic Growth Rate Inflation Rate	Avail. semiskilled labour Avail. unskilled labour
Pactor 13	Pactor 14	Factor 15	
Proximity of Customers Proximity of Suppliers	Proximity of Companies of Same Nature	Edisting Legal Regulations	

Only 44 of the original 56 variables were successfully grouped into factors leaving 12 variables which could not be linked to any other factors. This was very likely due to poor correlation between these 12 variables and those 44 variables successfully grouped into factors.

Table 6.8. Resulting Factors for Factor analysis of sections 8, 9, and 10 individually

National Factors				
Pactor 1	Factor 2	Pactor 3	Factor 4	
Direct Labour Costs (Wages, Salaries) Indirect Labour Costs (Social Security, Sick Leave etc.) Labour market Regulations (Working hours, Redundancy et.)	Availability of Risk Capital Cost of Borrowing Economic Growth Rate Inflation Rate	Industrial Policy (e.g. R&D incentives, Energy Policy) Governmental Administrative Procedures (e.g. Investment Procedures)	Exchange Rate Income / Corporate Taxes	
Regional Factors				
Pactor 1	Pactor 2	Pactor 3	Pactor 4	
Avail. & Quality of School-education and Training Facilities  Availability & Cost of Housing  Proximity of Vocational Managerial  Training Facilities  Proxim. of Colleges, Universities,  Polytechnics, Research Institutions  locial Climate (e.g. labour relations,	Market Services: Advertising/ Management Consultancies Cooperative Marketing Regional Policy Incentives (e.g. Labour/Capital Subsidies) Market Services: Banks, Insurers, Lawyers etc.)	Cost of Energy Supply Availability of Energy Supply Market Services: Servicing for Machinery) Cooperation of Regional Authorit Flexibility of Planning Decisions	Cost of Waste Dispos Avail. of Waste Dispos Industrial Siles (Cost Possibility of Expansi es/	
exhibitity, trade-union activities)	Pactor 5	Pactor 6	Pactor 7	
	Availability of Semi-skilled Labour Availability of Non-skilled Labour	Communication Facilities  Connections to the Traffic  Network	Proximity of Customer Proximity of Companie of the same nature	
Company-specific Factors				
actor 1	Pactor 2	Factor 3	Pactor 4	
sternal Communication Systems sternal Communication Systems istribution Channels upplier Links g. More Suppliers from EC)	Information on new EC Regula- tions & their implications Information about Products in other EC countries Information about Pricing Procedures in other EC countries	Product Innovation & Development Production Capacity Product Quality Price Strategies	Account. Procedures to new EC Standard  Admin. Procedures to new EC Standard  Capability of Standard  Capability of Standard  segards European  Business Procedures  Credit from other Institutions in EC	
nks with similar companies: n region rithin national boundaries				
ithin EC				

Factor analysis did not provide the decisive outcome that was hoped for because seemingly unrelated variables appeared, statistically, to have strong correlations. This made the results difficult to interpret. It was therefore decided that in a second attempt factor analysis should be employed for the three groups of national, regional, and company-specific variables individually.

This time the results appeared to show more logical correlations of variables and, in terms of labelling, more easily identifiable factors. In total 16 factors could be identified with four factors for all national variables, seven factors for all regional variables, and five factors for all company-specific variables. 51 variables were allocated to these 16 factors which is an increase of 27% compared to the previous outcome. Table 6.8. summarises all 16 factors. The four national factors could be labelled 'employment issues', 'economic indicators', 'political influence', and 'financial issues'. The seven regional factors could be labelled 'social and educational environment', 'managerial business support systems', 'technological business support systems', 'environmental site location issues', 'availability of cheaper labour input', 'provision of infra-structure', and 'business community'. The remaining five company-specific factors could be labelled as 'distribution', 'information on EC issues', 'product issues', 'capability of operating within EC environment', and 'business-tobusiness networks'

## 6.2. Results of the second survey

For the second survey the existing mailing list was updated as a number of companies had either ceased to exist or had moved. Additionally, the newer membership list of 'Taste of the West' with over 100 members provided a larger sample frame with approximately 60 additional companies for the UK South West survey. 135 responses were received which represents a similar response rate to the first survey of 44%. However, 8 responses had to be discarded because companies either responded only to the profile questions, felt unable to comment at all on the 26 factors in section 6 or only commented on a small fraction of the factors. In notes attached these companies stated that they felt they were too small to give valid comments on all factors. This left 127 companies in the UK South West sample for analysis.

For the German sample respondents from the first survey sample, established at the ANUGA/Cologne, and additionally a list of suppliers of a major German retail chain and a list of members of the Verband Schwarzwälder Schinkenhersteller were used to establish a sample of 227 companies. 78 responses were received which represents a response rate of 34.4%. One response had to be discarded as no attempt was made to respond to section 6. This left 77 valid responses in the sample.

As in the first survey, companies were predominantly single site businesses (Germany 80%, UK 71%), followed by being headquarters units (Germany 10.3%, UK 11.8%). The only difference to be observed was that this time a higher proportion of UK South West companies were subsidiaries or branches of national enterprises (Appendix 5, Figure 6.13). There were hardly any differences in the distribution of size of companies

in the UK sample compared to the first survey. UK South West companies tended to be rather small with 29% having between 1 and 4 employees and a further 36.5% having between 5 and 24 employees. The German sample showed this time a slightly less extreme picture than in the first survey. However, there were more German companies in the 200+ employees group compared to their UK counterparts. A fairly high proportion (24.6%) of German companies were in the 5 to 24 employees group but only 2.6% in the group of less than 5 employees. Hence similar to the first survey German SMEs are, on average, bigger than their UK counterparts (Appendix 5, Figure 6.14.).

Similar to survey 1 a very high proportion of German SMEs have been established at their present location for longer than 20 years (67%) whereas this was only the case for 32% of UK South West companies. Many UK South West companies have been established at their present location for less than 10 years (Appendix 5, Figure 6.15). Cross-tabulation and the Pearson chi-square test established a highly significant relationship between number of employees and years at location. Companies that have been established for a long time are usually much larger in terms of employees. This, however raises several questions to be examined further. Why are there so few long established UK South West companies in comparison to the German sample? Is it the striving for growth that puts companies in a position to survive situations like the current economic recession? Is there a stronger emphasis on growth in German SME firms and a tendency to stay small in the UK South West firms?

A breakdown of main activities and product groups for the companies in the survey is given in Appendix 5, Figures 6.16. and 6.17. UK South West companies see their markets mainly within national boundaries. Over 75% of UK South West firms do not engage in exporting and within that group 40% are only serving regional markets (Appendix 5, Figure 6.18.). Interestingly a higher percentage (16.2%) see their main market outside the EC. From the outcome of the first survey one can assume that these are again mainly links with Canada or the USA. The German sample shows 56% of SMEs serving a national market with only 21% serving a regional market. 44% are actively engaged in export activities but mainly within EC boundaries (26.6%) and to some lesser extent outside the EC (16.2%). The results show that UK South West companies are far less involved in export activities than their German counterparts. It is however intriguing that German exporting companies see their export markets mainly within the EC whereas the UK exporting firms see their export markets mainly outside the EC.

Looking at the dependence of export-activity on the size of the establishment (Appendix 5, Figure 6.19) it becomes apparent that a large proportion of German exporters have more than 200 employees (40%) and that within the group of German non-exporters, 40.5% have only between 5 and 24 employees. Amongst the group of UK non-exporters, 36.4% have less than 5 employees and 40.6% have between 5 and 24 employees. In the UK exporters group, 30% have more than 200 employees. However 23.4% of the exporters are companies with between 5 and 24 employees. Using cross-tabulation and the Pearson chi-square test for the whole sample proved that there is a highly significant relationship between size (number of employees) and export-activity (Appendix 5, Figure 6.20.). Bigger companies are more likely to be engaged in export-activities than their smaller counterparts. These findings are consistent with the results of the first survey.

No such relation could be established between the time companies have existed at their present location (age) and export-activity (Appendix 5, Figures 6.21. and 6.22.) by using cross-tabulations and the Pearson chi-square test. It appears that although there is a strong association between size in terms of employees and age of the companies this does not seem to be reflected in longer established companies being more likely to be engaged in exporting.

In section 6 companies had to comment on the 26 variables extracted from the first survey on the basis of their perceived high importance. Companies were asked whether they felt at a strong disadvantage, at some disadvantage, neither at a disadvantage nor at an advantage, at some advantage or at a strong advantage as regards these variables in a European Single Market context. Each attribute was allocated a value from 1 (strong disadvantage) to 5 (strong advantage). Similar to the first survey respondents were firstly grouped into exporting and non-exporting companies.

Stepwise-discriminant analysis was undertaken to establish whether there are differences between the attitudes of the defined subgroups. The stepwise-discriminant analysis for exporting versus non-exporting companies could not achieve a satisfactory discriminant model as classification results for all cases remained below the accepted threshold of 75%. For German versus UK South West companies, the discriminant analysis selected 15 variables from the originally 26 for inclusion into the model with a classification result of 81.11% (Table 6.9.). However, as fewer variables were used in the second survey, an attempt was made to reduce the number of variables even further by excluding or adding variables, monitoring changes in the classification result. Eight variables could be

excluded from the model and one variable was added, resulting in a very marginal reduction in classification result (80.21%). The 8 variables remaining in the model were: Indirect & Direct Labour Costs, Cost & Availability of Waste Disposal, Distribution Channels, Proximity of Suppliers, Product Quality, Pricing Strategies, Labour Market Regulations, Capability of Staff as regards European Business Procedures.

Table 6.9. Discriminating Variables between German and UK South West companies

Step Entered	Removed	Yars In	Wilks' Lambd	a Sig.	Label
1 <b>9</b> 6F	_	1	.77578	.0000	INDIRECT & DIRECT LABOUR COSTS
2 96R		2	.7227]	.0000	COST & AVAILABILITY OF WASTE DISPOSAL
3 <b>96K</b>		3	.68334	.0000	DISTRIBUTION CHANNELS
4 96N		4	:66683	.0000	PROXIMITY OF SUPPLIERS
5 <b>96C</b>		5	.65084	.0000	PRODUCT QUALITY
6 <b>96D</b>		6	.63326	.0000	PRICING STRATEGIES
7 <b>9</b> 60		7	.62196	.0000	INFO ABOUT PRICING IN OTHER EC COUNTRIES
8 <b>861</b>		8	.61193	.0000	COMMUNICATION FACILITIES (INTERNAL & EXTERNAL)
9 <b>96</b> G		9	.60090	.0000	AVAILABILITY OF SKILLED LABOUR
10 gez		10	.59359	.0000	INDUSTRIAL POLICY
11 <b>ggp</b>		11	.58475	.0000	ECONOMIC GROWTH RATE
12 868		12	.57739	.0000	INPLATION BATE
13 <b>962</b>		13	.57067	.0000	LABOUR MARKET REGULATIONS
14 <b>96A</b>		14	.56193	.0000	PRODUCTION CAPACITY
15 <b>96T</b>		15	.55806	.0000	INFO ABOUT NEW EC REGULATION & IMPLICATIONS

In order to further examine whether there were statistically significant differences between German and UK South West SMEs, exporting and non-exporting companies and interaction between nationality of companies versus export activities, a multivariate analysis of variance (MANOVA) was employed. The assumed null-hypotheses were no difference in responses between German and UK firms, between exporting and non-exporting firms and no interaction between nationality relative to

exporting or non-exporting. The outcome of this analysis is summarized in Appendix 4.

There was no evidence of interaction between the nationality of the companies and being exporters or non-exporters. However, there was strong evidence against the null hypothesis of no difference in attitudes between German and UK South West firms (significance value of 0.000 for Wilks lambda). For 11 variables the null hypothesis of no difference had to be rejected (see Table 6.10.). German companies identified an advantage versus their UK counterparts for five variables: product quality, capability of staff as regards European business procedures, distribution channels, links with suppliers esp. in other EC countries, and national economic growth rate. German companies moreover identified six factors as providing some disadvantage in the Single European Market environment: pricing strategies, labour market regulations, direct and indirect labour costs, cost and availability of waste disposal facilities, existing legal regulations (e.g. environmental; health and safety), and the cooperation and flexibility of regional authorities. UK South West companies identified one factor, product quality, as providing a modest advantage and identified some disadvantage to their companies in terms of staff capability in managing European business procedures and existing legal regulations. These findings show very similar results to those obtained from the discriminant analysis. The null hypothesis of no difference between exporting and non-exporting companies could not be rejected (calculated significance value for Wilks lambda: 0.454). Hence, there appeared to be no statistically significant differences between exporting and non-exporting firms.

Table 6.10. Perceived advantages and disadvantages by UK South West and German SMEs

Advantages:	Disadvantages:
Product quality     Capability of staff as regards     European business procedures     Distribution channels     Links with suppliers     in other EC countries     National economic growth rate	1) Pricing strategies 2) Labour market regulations 3) Direct and indirect labour costs 4) Cost and availability of waste disposal facilities 5) Existing legal regulations (e.g. environmental; health and safety) 6) Cooperation and flexibility of regional authorities / planning decisions
UK SOUTH WEST SMEs	
UK SOUTH WEST SMEs  Advantages  1) Product Quality (*)	Disadvantages:

The same test was then applied with non-exporting firms being split into two sub-groups depending on whether they mainly operate in regional or within national boundaries. Exporting companies were grouped according to whether their main markets are within the EC or outside the EC. Similar to the previous test, it was intended to establish whether:-

a) there were differences between German and UK South West SMEs

## and, additionally, whether:-

- b) there was interaction between the nationality of companies and the location of the main markets in which they operate
- c) there were differences in attitudes between companies operating in these four markets.

The null hypotheses were, there should be no difference between German and UK firms and between companies operating within regional markets, national boundaries, within the European Community, or outside the European Community. There should be no interaction between the nationality of companies and their main markets.

The hypothesis of no interaction between nationality and main markets had to be rejected (significance value of F for Wilks lambda at 0.044). Variables where interaction appeared to be statistically significant were production capacity, direct and indirect labour costs, proximity of suppliers, and cooperation and flexibility of regional authorities. Furthermore, a value of 0.000 for Wilks' lambda indicated that the nullhypothesis of there being no difference between German and UK South West firms also had to be rejected. The significance values of F indicated statistically significant differences between German and UK South West firms for 11 variables. This outcome is similar to the previous test. However, this time there appeared to be no difference in attitude between firms of the two countries as regards product quality and economic growth rate. Significance values for Wilks' lambda indicated that there were differences in attitude as regards social climate and the cost and availability of energy supply, where German firms see themselves at a disadvantage. However, comparing the significance values for these four variables to those of the previous MANOVA-test showed that changes were very small.

Differences in opinion could be observed between companies operating in different markets as demonstrated by the significance value for Wilks' lambda at 0.010. Statistically significant differences were found for five variables. Companies serving a regional market considered themselves to

be slightly more at a disadvantage as regards production capacity. However, UK South West companies serving the entire UK market and German SMEs serving markets outside the EC also consider themselves to be at some disadvantage as regards production capacity. Companies operating on a national level see themselves at some disadvantage when seeking cooperation with regional authorities over planning decisions. It is striking that German companies, whose main markets are both inside and outside the EC see themselves in that respect at a much stronger disadvantage than their UK counterparts. At a regional level, companies in both countries were indifferent in their opinion about this factor. As regards product quality it appeared that the further companies' expanded overseas the more they felt at an advantage. This confidence dropped slightly with companies primarily operating in markets outside EC boundaries.

Furthermore, differences could be observed as regards social climate (e.g. trade union activities) and economic growth rate. Companies operating regionally, but also companies with markets outside the EC felt slightly more at a disadvantage as regards social climate. Overall, German companies felt more at a disadvantage than their UK counterparts. German companies operating nationally or within the EC market see themselves slightly more at an advantage as regards their country's economic growth rate. All companies in both countries, operating mainly outside the EC market, see themselves more at disadvantage in terms of economic growth rates.

However, it has to be stressed that the findings of the second MANOVA test have to be viewed with caution because the hypothesis of no interaction between nationality and main markets had to be rejected.

Hence, findings might be influenced by interaction between companies' nationality and main markets in which they operate.

Although statistically significant differences for the different subgroups could be established, the majority of responses implied that companies were at some difficulty in establishing a clear picture of genuine advantages or disadvantages for themselves in the European Single Market environment. A relatively small number of companies considered themselves as having strong advantages or strong disadvantages. Especially companies in the UK South West failed to indicate existing strengths, weaknesses, opportunities, or threats. This is in sharp contrast to the first survey where companies appeared to indicate more strongly which variables they considered as important or unimportant.

As a last step of analysis, factor analysis for all variables of question 6 was attempted. This provided seven factors where strong correlations between variables could be established (Table 6.11.). 25 of the originally 26 variables could be successfully grouped into factors. Only the variable 'industrial policies (e.g. R&D, Incentive Schemes, Energy Policy)' could not be linked to any of the factors. Moreover, Factor 7 only comprises of the variable 'availability of skilled labour'. However, compared to the previous survey, factor-labelling was more easily accomplished. The following factors could be identified: Distribution Issues (Factor 1), Financial & Cost Issues (Factor 2), Product & Production Issues (Factor 3), Labour Issues (Factor 4), Regulative & Legislative Issues (Factor 5), Availability of ECrelated Information (Factor 6), Availability of Skilled Employees (Factor 7).

Table 6.11. Resulting Factors for Factor Analysis for Questionsection 6

Factor 1	Factor 2	Factor 3	Factor 4
Communication Facilit. (Internal & External)  Distribution Channels  Connection to Traffic- network  Proximity of Customers  Proximity of Suppliers  Capability of Staff as regards European Business Proces	Cost of borrowing  Economic Growth Rate Inflation Rate Cost & Avail. of Waste Disposal Cost & Avail. of Energy	Production Capacity Product Innovation & Development Product Quality Pricing Strategies Social Climate	Labour Market Regulations Direct & Indirect Labour Costs
Factor 5	Factor 6	Fa	ctor 7
Cooperation/ Flexibility of Regional Authorities  Existing Legal Regulations (e.g. Hygiene, Environment)  Administration & Accounting Procedures to EC Standard	Avail. of Information on:  New EC Regulations & Implications  Products in other EC Countries  Pricing Strategies in other EC countries		ability of ed Labour

## 6.3. Results of the third survey

Completed survey forms were received from 122 UK South West and 71 German companies which represented a response rate of 41.6% and 32.7% respectively. However, of these responses 12 UK South West and 9 German responses had to be discarded as companies only completed a fraction of the survey form or felt unable to complete the survey form sufficiently due to the small size of their company. This was mainly the case for the UK South West sample. Furthermore, responses were discarded when companies indicated that they were mainly distributors and the production side of their company too small for commenting on any question relating to production/production method, new product development, machinery etc. This was mainly the case in the German sample. This left 110 UK South West companies and 62 German companies in the sample for further analysis.

Companies in both countries showed a similar pattern as regards their main activities. Between 92% and 96% of the respondents see their main activities in manufacturing. Within the UK South West sample a slightly higher proportion was engaged in distribution compared to their German counterparts. German SMEs are slightly more involved in assembly, R&D, and service activities (Appendix 5, Figure 6.23.). A breakdown of main product groups for the British and German companies is illustrated in Appendix 5, Figure 6.24.

A comparison of main markets revealed that UK South West firms mainly operate within national boundaries (50%) or on a regional level (30%). Only 20% of the British sample operate in overseas markets with a strong emphasis on markets outside the EC which is a similar outcome to the

first two surveys. In contrast, 42% of the German SMEs operate within the Single European Market, 21% outside the EC. 37% are non-exporters but 27% of those operate within the whole German market. These results confirm the outcome of the previous surveys that only a small number of UK South West SMEs is engaged in export activities whereas, in comparison, a much higher number of German SMEs see the Single European Market as an extension to their homemarkets (Appendix 5, Figure 6.25.).

Companies in both countries showed a similar picture as regards the type of establishment. Companies are predominantly Single Site Businesses - a result identical with the first two surveys (Appendix 5, Figure 6.26.).

Similar to the outcome of the first two surveys UK South West SMEs are rather small with the majority employing between 1 and 24 employees (65%) whereas 47% of German companies have more than 100 employees and a further 40% have between 25 and 99 employees (Appendix 5, Figure 6.27.). An identical picture to the previous surveys was also obtained as regards 'years at location'. A very high percentage of German SMEs have been established at their current location for more than 20 years (61%), a further 19% for more than 10 years (Appendix 5, Figure 6.28.).

When asked about their company's current sales goal (Question 6), the majority of firms in both countries stated that they were going for steady sales growth (75% UK, 70% Germany). 14.5% of the German sample indicated that they were currently aiming at maintaining sales. Only 3.7% of the UK sample saw this as their current goal. In contrast, 13.8% of the British firms are going for aggressive sales growth but only 4.8% of the German SME sample do so. Crosstabulation of nationality and current

company sales goals, using the Pearson chi-square test did not provide valid results as more than 20% of the cells had frequencies less than 5. However, a significance value for Pearsons chi-square much lower than 0.05 suggested that there could be an association between nationality and company sales goals. The same test showed no association between export activity and sales goals and also no association between size of the company and current sales goals. However, a significance level of 0.01 gave some indication of a relationship between age of the company and sales goals but due to empty cells in the cross-tabulation, no valid results could be drawn using the Pearson chi-square test.

Question 7 asked companies for their medium-term company plans, using the four quadrants of the Ansoff (1984) product/market matrix as possible options for respondents. 40% of German SMEs indicated that they are planning to expand into new markets with existing products, 34% stated that developing new products for existing markets was their 3-5 year plan. The percentage of UK firms in these two categories, in comparison, was lower. 27% of UK South West firms wanted to stay in their current market with existing products, only 19% of German companies wanted to do so.

However, crosstabulations of nationality with medium-term company plans, using the Pearson chi-square test, could not provide evidence of any association. The same test was applied for exporting/non-exporting companies and product/market strategy. This time Pearson's chi-square test provided evidence for association. Exporting companies were predominantly planning to expand with existing products into new markets or develop new products for existing markets. No association could be established for company-size or age of companies with medium-term product/market strategies.

In the next question (8) companies were given five statements concerning 'company objectives'. With each statement respondents could indicate their level of agreement ranging from agree strongly, agree, neither agree nor disagree, disagree, to disagree strongly. Each attribute was allocated a value ranging from 1 (agree strongly) to 5 (disagree strongly).

UK South West and German SMEs did not appear to differ in their attitude towards increasing turn-over or towards increasing marketshare. The majority of companies in both countries agreed fairly strongly with these statements. A large number of German and British companies were undecided or rejected achieving high short-term profits as their company objective. Of the British firms over 60% agreed strongly and 35% agreed that profit growth over longer term is their objective. 43% of the German firms agreed strongly and 50% agreed with this company objective. With regard to the immediate improvement in cash-flow, it appeared that UK firms agreed more strongly with this company objective than their German counterparts. The data permitted parametric hypothesis testing for differences in attitude between German versus UK and exporters versus non-exporters. Similar to surveys 1 and 2 a multivariate analysis of variance (MANOVA) was carried out. The null hypotheses were defined as no interaction between nationality of companies and export activities and no difference between UK versus German firms and exporters versus nonexporters. In all three cases the null hypothesis could not be rejected (values for Wilks' lambda above 0.05). This indicated that observed differences between the subgroups were statistically not significant.

A significance value of 0.002, using crosstabulation and the Pearson chisquare test provided evidence for a possible association between company-

size and 'immediate improvement in cash-flow'. However. the preconditions for a valid chi-square test were not met. Subsequently, an analysis of variance (ANOVA) was carried out and the null-hypothesis was that there should be no difference between companies falling into the six different size groups as regards their level of agreement with this company objective. The test suggested that there is a significant difference in attitude of companies in different sizes ranges as regards their attitude towards improving their cash-flow. Small companies put more emphasis on the immediate improvement in cashflow than their larger counterparts. As there is a majority of very small British firms in the sample this would explain why it first appeared that UK firms agreed more strongly with this company objective than their German counterparts. It is generally stated that small UK firms have cash flow problems especially in their start-up phase (Eglin 1992).

The Pearson chi-square test did not provide evidence for suggesting any association between the age of companies and their company objectives.

In question 9, six different activities essential in managing businesses were presented. Companies indicated on a 5-point scale whether they rate these activities as very important, important, neither important nor unimportant, unimportant, or not at all important. Values ranging from 1 (very important) to 5 (not at all important) were attached to the scale.

The overall results showed that in both countries marketing planning is rated by a majority of firms as very important (53% Germany, 46% UK) or important (both UK and Germany 38%). Marketing research is seen by approximately 20% of companies in both countries as very important and by a further 55% (UK) to 60% (Germany) as important. Some difference

can be noticed as regards monitoring competition on which German firms appear to place much more importance than their UK counterparts. Over 43% of German companies rated monitoring competition as very important and over 51% as important, compared to only 21% of UK companies rating it very important and over 25% being undecided about its importance. British firms, however, place a higher importance on setting general company objectives (39%) compared to only 21% of the German companies. This picture changes with a greater proportion of German companies placing high importance on formulating detailed strategic company plans (35.5% German, 23% UK) or rating it generally as important (56.5% German, 43.5% UK). An even greater difference can be observed when companies were asked to rate the importance of formulating detailed European Single Market plans. Over 57% of German firms rated this activity as important or very important but only 25% of UK South West SMEs shared this opinion. 23% of British firms rated this activity as unimportant, 12% as not at all important. Crosstabulations, using the Pearson chi-square test added further evidence for rejecting the null-hypothesis of no association between nationality and managerial activities.

A comparison of exporters and non-exporters using the same test revealed possible association between export-activity and monitoring competition and between export-activity and formulating a detailed plan for the European Single Market. The cross-tabulations gave indications that exporters rated monitoring competition and formulating a strategic approach to the Single Market as more important than their non-exporting counterparts.

Parametric hypothesis testing was employed to establish whether there was possible interaction between nationality and export-behaviour, using a multivariate analysis of variance test (MANOVA). The hypotheses to be tested were no difference between UK South West versus German SMEs, exporters versus non-exporters, and no interaction between nationality and export-behaviour.

The results for the significance of Wilks' lambda in the multivariate test showed no evidence against the hypothesis of no interaction. Furthermore, the conjecture of no difference between exporting and non-exporting companies could not be rejected. However, the univariate test suggested a possible difference in attitude between these two groups for the formulation of a strategic Single European Market plan. Exporters appeared to place more importance on this issue than their non-exporting counterparts.

There was evidence against rejecting the null-hypothesis of no difference between German versus British companies for four management activities. German SMEs rated monitoring competition, formulating a detailed strategic company plan, and formulating a detailed Single European Market plan as more important than their British counterparts. UK firms rated setting overall company objectives as more important than did the German SMEs. The fact that UK firms have less formalised company plans in contrast to their German counterparts was previously highlighted by Shaw and Doyle (1991).

A Pearson chi-square test provided evidence for a possible association between the size of firms and monitoring competition, formulating a detailed strategic business plan and formulating a detailed Single European Market action plan. In all three cases the significance value for Pearson's chi-square remained below 0.05. Hence, the hypotheses of no association had to be rejected. Cross-tabulation revealed that smaller firms place less importance on these issues in comparison to their larger counterparts. To investigate this issue further, a multivariate analysis of variance (MANOVA) was carried out. The null-hypotheses was that there should be no difference between companies of different size ranges as regards the attitude towards these management activities. Additionally, the hypothesis of no difference between German versus UK firms was tested because it appeared possible, that the outcome of the Pearson chisquare test was influenced by national differences. The results indicated no difference between companies of different size ranges thereby failing to support conclusions drawn earlier from the Pearson chi-square test.

A further Pearson chi-square test showed no association between age of companies and managerial activities.

Question 10 asked companies to comment on the breadth of appeal in the market for their main product and services. Respondents were offered a five point scale ranging from 'appeal to a very small specialist group of customers', 'appeal to 1/4 of customers in market', 'appeal to about 1/2 the customers in market', 'appeal to three quarters of customers in market', to 'mass appeal product'. Values from 1 (very small specialist group) to 5 (mass appeal product) were attached to the scale.

The results established that a higher number of British firms indicated that their product/s only appeal to a very small specialist group of customers (Germany 11.3%, UK 27.3%). A comparatively higher proportion of the German SMEs (26% versus UK 12%) described their

product as appealing to half the customers in the market. An equally high number (approximately 27%) of companies in both countries produced mass appeal products. It appears, that there is some dichotomy in UK South firms as they either produce niche or mass appeal products. In contrast, most German SMEs have products that have a broader market appeal, but not a mass appeal.

A multivariate analysis of variance (MANOVA) was employed to establish whether there were significant differences between British versus German and exporting versus non-exporting firms, and, simultaneously, whether there was interaction between nationality and export-behaviour. The corresponding null-hypotheses were no difference between companies of different nationality, exporters versus non-exporters, and no interaction between nationality and export-behaviour.

The hypotheses of no interaction and of no difference between UK and German SMEs could not be rejected as the significance value for Wilks' lambda remained above the threshold of 0.05. However, the hypothesis of no difference between exporting versus non-exporting firms had to be rejected. Non-exporting companies, on average, see the breadth of appeal for their products to be limited to a smaller proportion of customers in the market in contrast to their exporting counterparts. Given that there is a substantially larger proportion of exporters in the German sample, this might possibly explain the apparent differences between the two countries in the Pearson chi-square test.

A Pearson chi-square test showed that 'time at location' did not appear to be linked with the breadth of appeal of companies' products but there appeared to be association between the size of the companies and the breadth of product appeal. Small companies' products appealed to a rather small customer base whereas larger companies stated that their products and services appealed to a much wider population of customers in the market. The multivariate analysis of variance test (MANOVA) was used to validate these findings and also to establish whether nationality had any influence on the result. The null-hypotheses were that there should be no difference between different sizes of companies, no difference between German versus UK, and no interaction between nationality and size of companies as regards their products' breadth of appeal to the market.

Both null-hypotheses of no interaction and of no difference between German and UK firms could not be rejected. However, there was evidence for rejecting the null-hypothesis of no difference between different size groups, indicated by a significance level for F of 0.000. Companies with up to 24 employees stated, on average, that their main products appeal to between a quarter and half the customers in the market. Companies with 25 to 49 employees perceive their products to be appealing to half the market, companies with 50 to 99 employees to between half and three thirds. Finally, firms with more than 200 employees stated that their products are appealing to more than three thirds of customers in the market.

Question 11 looked at the extent to which companies are using various possible outlets for their products. Respondents indicated on a scale ranging from 'all', 'most', 'some', to 'none' to what extent their products are sold through different outlets, both retail and catering. Values between 1 (all) and 4 (none) were attached to the scale. The list of possible outlets took into account that companies might be selling both to the retail and

the catering sector. Companies were invited to specify any outlet not mentioned in the list but none of the respondents specified any other possible outlets. It therefore can be assumed that the list was comprehensive.

Not all companies commented on each possible outlet as was required but often appeared to only comment on those outlets through which their products are actually sold. Parasuraman (1991) suggests the method of 'educated guessing' for cases with missing values, subject to being able to make assumptions with reasonable confidence. It appeared to be reasonable to treat these missing values as companies indicating that 'none' of their products is sold through these outlets. However, when these firms were approached to complete these sections with missing data, this assumption was confirmed.

Overall, it appeared that German companies were mainly selling through regional and national retail chains, whereas many UK South West firms indicated that they mainly sell to local shops and catering outlets. As a first step the hypotheses of no differences between German versus UK and exporting versus non-exporting firms as regards the type and extent to which companies' products are sold through different outlets were tested. Additionally, the data was tested for possible interaction. The assumed null-hypothesis was that there should be no interaction between nationality and export-activity.

The null-hypothesis of no interaction could not be rejected. However, there was evidence against the conjecture of no difference between German versus UK and between exporting versus non-exporting firms, indicated by significance values for Wilks' lambda of 0.000 in both cases.

In five cases differences between German versus UK SMEs were observed. German firms put less emphasis, compared to their UK counterparts, on selling their products through their own catering outlets, local shops, or local catering outlets. Compared to the British sample, the German SMEs sell their products mostly through regional or national retail chains.

The comparison of exporters versus non-exporters showed for six types of outlets that the null-hypothesis of no difference between the two groups had to be rejected, indicated by significance values for F below the threshold of 0.05. Exporting firms sell their products mainly through regional, national, or European retail outlets. There was also evidence that exporters sell their products, compared to their non-exporting counterparts, more often through regional, national, and European catering outlets. Overall, exporters appear to target predominantly retail outlets and to some lesser extent catering outlets.

Crosstabulations, using Pearson's chi-square test between size and type of outlets companies use to sell their products, revealed a possible association between the size of firms and the type of outlet. This suggested a further test of the hypothesis of no difference between firms of different size as regards the use of different outlets, using the MANOVA test. The multivariate test of significance for Wilks' lambda revealed that there was evidence for rejecting the null-hypothesis of no difference. For six sales outlets differences between firms belonging to different size groups were significant. Smaller firms are more likely to sell their products to local shops or local catering outlets whereas larger firms sell their products largely through regional, national, and European retail chains or through

European catering outlets. Companies with more than 100 employees sell most of their products through national retail chains.

The Pearson chi-square test for association established a possible relation between years at location and one particular type of outlet, i.e. national retail chains. Hypothesis testing, using the MANOVA test, could not confirm this. The significance value for Wilks' lambda in the multivariate test remained above the threshold of 0.05. Hence, there was no evidence for rejecting the null-hypothesis of no difference between companies in different age groups and sales through national retail chains.

Question 12 asked companies to specify the quality of their main product or products in terms of 'very high', 'high', 'average', 'low', and 'very low'. Values ranging from 1 (very high) to 5 (very low) were attached. In general, the results showed that nearly all companies considered the quality of their products as high or very high. Over 50% of German firms and over 60% of English firms considered the quality of their main product to be of a very high standard. 42% of German SMEs and 36% of their British counterparts described the quality of their product as high.

Hypothesis testing for differences between German versus UK, exporting versus non-exporting companies, and the test for interaction between nationality and export behaviour, using the multivariate analysis of variance test, could not establish any differences between groups, neither any interaction. Moreover, additional testing for differences between different sizes of firms and different age groups as regards product quality could not reveal any significant differences between groups.

Question 13 asked companies to indicate the approximate age of product formulation for their current main product(s). Respondents had a choice of five time brackets ranging from 'less than 1 year', '1-3 years', '4-6 years', '7-10 years', to 'more than 10 years'. Values from 1 (less than 1 year) to 5 (more than 10 years) were attached to the scale.

43% of the German SMEs were found to have a product formulation not older than 1 year, 48.5% of between 1 to 3 years. Less than 5% of the German respondents had a product formulation that was more than 10 years old. In contrast only 13% of the UK sample have a product formulation not older than one year. 41% described their product formulation as being between 1 and 3 years old. Over 28% fell into the 'more than 10 years' category.

A comparison of exporting versus non-exporting companies revealed a higher proportion of exporting companies have a product formulation not older than three years. Over 24% of the non-exporting companies have a product formulation older than 10 years. The Pearson chi-square test suggested an association between export-behaviour and age of product formulation. As a significantly higher proportion of German companies are active exporters compared to their British counterparts, it could be assumed that this factor is the reason German respondents have younger product formulations. A multivariate analysis of variance was carried out to further investigate this possibility. The null-hypotheses were that there is no difference between German versus British and exporting versus non-exporting companies. Additionally, there should be no interaction between nationality and export-behaviour.

The hypotheses of no interaction and of no difference between exporting and non-exporting firms could not be rejected. However, there was evidence for rejecting the conjecture of no difference between German and UK SMEs. On average, product formulations in the German companies are much younger than those of the UK sample. For German non-exporters product formulations are mainly found in a band between 1 - 3 years, for German exporters they have been updated even more recently. The British firms, both exporters and non-exporters, were found to have product formulations that are, on average, between 4-6 years old. These findings correspond with the outcome of research undertaken by Shaw and Doyle (1991), when comparing companies in the German and UK tool manufacturing industry.

It was decided to test the hypotheses that there are no differences between companies of different size ranges and no differences between different age-groups of companies as regards the age of their product formulation. A MANOVA-test was employed testing simultaneously for the possibility of any overriding influence through the nationality of companies. The outcome of both tests showed that there was no evidence for rejecting the null-hypothesis of no difference between companies of different sizes and between different age-groups of companies. This test also showed that differences between companies mainly stem from nationality differences.

Question 14 asked companies to identify, from a choice of five options, the current sales performance of their main product(s). Sales performance was defined by sales volume and demand for the product. The five options were 'few sales/rapidly rising demand, considerable sales/rapidly rising demand, high sales volume/steadily rising demand, high sales volume/unchanging demand, decreasing sales volume/declining demand'.

From the data acquired it would be possible to define where companies' products are currently situated on the product life cycle curve (PLC).

As Appendix 5, Figure 6.29. indicates, a considerably higher proportion of German firms stated that their products have a high sales volume and unchanging demand. These products can be seen as being in the maturity phase of the PLC (phase 4). In contrast a comparatively higher proportion of UK firms indicated that their main products have few sales but rapidly rising demand which can be interpreted as the infancy stage of the PLC (phase 1). Moreover, the proportion of UK companies with products at the decline stage of the PLC was higher, compared to the German sample (phase 5). The Pearson chi-square test provided evidence for association between nationality and product's location on the PLC.

A comparison of exporting versus non-exporting firms, illustrated in Appendix 5. Figure 6.30., showed that compared to their exporting counterparts a considerably higher proportion of non-exporting companies saw their products in the first phase of the PLC. Most exporting companies indicated that their products have a high sales volume and steadily rising demand or unchanging demand which indicates that their products are found at the beginning or in the plateau phase of the maturity stage. The majority of non-exporting companies considered their products to be at the growth or early maturity stage. Looking at the crosstabulation's column-percentages for exporting and non-exporting firms at each stage of the PLC in isolation, revealed that for those companies whose products are found to be in the infancy phase, 94% were non-exporters and only 6.3% were exporters. For the decline phase, 70% were non-exporters but only 30% of them were exporting companies. The Pearson chi-square test provided evidence against the conjecture of no

association between exporting-behaviour and a product's location on the PLC. A crosstabulation of companies' main markets by product's position on the PLC revealed that most of those companies serving a regional market had their products on the early stages of the PLC (1 and 2), companies serving a national market mainly had products in the late growth/early maturity phase (3), and companies selling their products into the EC market had their products predominantly in the maturity phase (4) of the PLC. None of the companies which serve markets outside the EC had products at the infancy or decline stage. Products were mainly at the late growth/early maturity stage (over 28% were in the growth phase and another 25% at the maturity stage). The Pearson chi-square test suggested a significant association between companies' main markets and product position on PLC but had to be considered invalid due to empty cells.

A crosstabulation of size of company and products' position on the PLC gave indications that smaller companies had products mainly at the first stages of the PLC whereas with increasing size companies considered their products to be at the late growth or maturity stage. The Pearson chi-square test suggested a possible association. However, due to empty cells in the crosstabulation not all prerequisites for a valid chi-square test were met. No association was suggested using the same test for years at location and position of products on the PLC.

Question 15 asked companies to describe the price of their main product(s) in terms of very high, high, average, low, very low. Values between 1 (very high) and 5 (very low) were attached to the scale. This would permit parametric testing.

The general impression when comparing German and UK SMEs was that, on average, more German companies appeared to indicate that prices of their products were high whereas a comparatively large number of UK firms stated that their products' prices were low.

The null-hypotheses of no difference between UK versus German respondents, exporters versus non-exporters, and no interaction between nationality and export behaviour were tested. Multivariate analysis of variance, using the unique sums of squares test, provided no evidence against the null-hypothesis of no interaction between nationality and export behaviour as regards the price of products. However, both null-hypotheses of no difference between groups had to be rejected. Product prices in German SMEs, on average, tended to be high whereas their British counterparts indicated that their products achieved an average market price. Generally, prices of exporting companies tended to be lower than those of their non-exporting counterparts. This may be explained by exporters being exposed to stronger competition on price in foreign markets.

ANOVA-tests revealed that size and age of companies did not seem to have any significant influence on pricing policies.

Question 16 described 15 different promotional activities and asked respondents to identify how promotional funds are expended on these activities in terms of 'all', 'most', 'some', or 'none'. Values from 1 (all) to 4 (none) were attached. The precondition of interval scaling permitted parametric testing.

Overall, companies indicated that they spend most of their promotional funds on trade exhibitions, sales force, samplings and tastings, advertising by customers and trade incentives. Moreover, it appeared that companies spread their budgets fairly thinly and mainly over those activities that promise quick and measurable returns.

A MANOVA test was carried out, examining the three null-hypotheses of no difference between German versus British SMEs, exporters versus nonexporters and no interaction between nationality and export behaviour.

The significance values for Wilks' lambda for the multivariate test established that there was evidence against the null-hypothesis at a 5% significance level. For four promotional activities the hypothesis of no interaction had to be rejected. These were advertising in local papers, advertising in journals and magazines, TV commercials and point of sale samplings or tastings. This meant that for these activities nationality influenced the behaviour of exporters and non-exporters and vice versa.

Promotional activities for which there was a significant difference between British and German SMEs were advertising in local papers, advertising in national papers, local radio commercials, costumer mailshots, advertising done by customers, posters/billboards, incentives to trade customers, trade agencies, and trade exhibitions. German SMEs spend more on all of these promotional activities compared to their British counterparts. These firms allocate most of their funds on trade exhibitions and incentives. Advertising by customers (e.g. retail chains) appeared to be the most important promotional expense for the German SMEs. German retail chains and wholesalers demand regular contributions towards advertising

costs if suppliers' products are to be featured in their promotional campaigns.

For four promotional activities there was a significant difference between exporters versus non-exporters. These were advertising in local papers, local radio commercials, TV commercials, and brochures to trade. On all of these four activities exporters were spending slightly more of their funds than their non-exporting counterparts.

It appeared that German exporters usually spend more of their funds on promotional activities than their UK counterparts except in the case of TV commercials where UK exporters appeared to spend more.

Multivariate tests were carried out to establish whether there were differences between size and different age groups of companies in relation to promotional spending. Simultaneously a test was carried out for the null-hypothesis of no interaction between nationality and size of companies. There was evidence for rejecting the null-hypothesis at a 5% significance level for three promotional activities (advertising in local papers, local radio commercials and TV commercials). The null-hypothesis of no difference between size of companies had to be rejected for four promotional activities: advertising in national papers, TV commercials, posters and billboards, and incentives to trade customers. Generally it appeared that the larger the company, the more is spent on promotion. However due to an interaction effect, it is likely that these differences can be attributed to differences between nationalities. No evidence against the null-hypothesis of no difference between different age groups of companies could be established.

Porter suggested that five forces shape a company's competitive stance in its market(s). These are 'rivalry in the same industry sector', 'threat of new entrants into the market', 'threat of substitute products', 'bargaining power of suppliers', and 'bargaining power of customers or buyers'. Question 17 used the Porter's 5 forces model (1985) to establish the intensity to which companies respond to these competitive forces in the market. Firms could indicate on a four point scale whether they responded 'very strongly', 'strongly', 'to some minor extent', or 'not at all' to these competitive forces, both, in a national context and also in an EC context. Values from 1 (respond very strongly) to 4 (do not respond at all) were attached to the scale. The data therefore permitted parametric hypothesis testing.

Overall, it appeared that competitive forces from within national boundaries affected all companies more than those from the wider EC environment. Companies indicated that the bargaining power of national customers and buyers was the competitive force they responded to most strongly, closely followed by rivalry within the same industry sector.

A multivariate analysis of variance was carried out to test the three null-hypotheses of no difference between German and British firms, exporters versus non-exporters, and no interaction between nationality and export-behaviour. The null-hypotheses of no interaction and of no difference between German and UK firms could not be rejected. However, the null-hypotheses of no difference between exporting and non-exporting SMEs had to be rejected at a 5% significance level.

For all five competitive forces within the context of the EC environment there were significant differences between the two groups. In each case exporters indicated stronger response than their non-exporting counterparts. Exporters indicated that they were most concerned about the bargaining power of customers and buyers within the EC, followed by bargaining power of EC suppliers, rivalry within the industry, new entrants into the market from the EC, and substitute products from the EC.

The same test was employed to test for differences between size of companies. Companies were grouped into three groups: small (1-24 employees), small/medium (25-99 employees), and medium (more than 100 employees). Differences between nationalities were tested in order to determine whether there is any possible interaction between size of company and nationality as regards response to competitive forces. The null-hypotheses of no interaction and of no differences between German and UK SMEs could not be rejected. However, the null-hypothesis of no differences between size of companies had to be rejected (value of 0.001 for Wilks' lambda). There were differences between company size in relation to the intensity of response towards rivalry from companies within the same industry sector, substitute products from within national boundaries, bargaining power of national suppliers, and bargaining power of national customers or buyers. With increase in size companies are more concerned about these competitive forces. On average, rivalry of companies within the same industry sector was most important, followed by bargaining power of national customers and buyers.

The multivariate analysis of variance test validated that the null-hypothesis of no difference between companies of different age groups as regards response to competitive forces.

Question 18 listed eleven factors of which offered a competitive advantage in the marketplace. Companies were asked to rate the extent to which each factor provides them with a competitive advantage in terms of 'strong competitive advantage', 'some competitive advantage', 'little competitive advantage', and 'no competitive advantage'. Values from 1 (strong competitive advantage) to 4 (no competitive advantage) were attached to the scale. The data permitted parametric testing.

Overall, companies rated high quality of their products as the strongest contributor to gaining competitive advantage in the marketplace, followed by efficient supply of required products, uniqueness of the product and established brand name (Appendix 5, Figure 6.31.). Terms of payment, low price, and advertising and sales promotion were seen as contributing little to competitive advantage. The fact that advertising and sales promotion are rated as contributing little to gaining competitive advantage corresponds with the results obtained from Question 16, concerning reluctance to spend on promotional programmes.

A multivariate analysis of variance (MANOVA) tested the null-hypotheses of no difference between German versus UK firms, exporting versus non-exporting, and no interaction between nationality and exporting behaviour as regards companies' perception of the extent each of these factors offers competitive advantage.

The null-hypothesis of no interaction could not be rejected. The outcome of the multivariate test for the comparison of exporting and non-exporting companies suggested that the null-hypothesis of no significant difference could not be rejected. However, the significance value for Wilks' lambda of 0.082 was only slightly above the threshold of 0.05. It therefore appeared

to be worthwhile to examine the F values for the univariate test. For two factors differences were suggested for exporters versus non-exporters. These were efficient supply of products and distribution channels where exporters compared to non-exporters expressed a stronger competitive advantage.

The null-hypothesis of no difference between German and British companies had to be rejected (significance value of 0.024 for Wilks' lambda). The univariate F-test revealed that at a 5% significance level there was a difference between the two samples for the factor of efficient supply of products. British companies, on average, described themselves at being at a stronger competitive advantage compared to their German counterparts. This result suggests further examination at a later stage of possible links with companies' utilisation of production capacity.

MANOVA-tests established that size of companies had no influence on competitive advantage. The null-hypothesis of no difference between different size groups was validated. However, the null-hypothesis of no difference between different age groups had to be rejected at a 5% significance level. For three factors, older companies considered they have a stronger competitive advantage than their more newly established counterparts. These factors were: well established brand name, variety within product groups, and employing advertising and sales promotion.

Question (19) asked companies to indicate to which extent their current production capacity is utilised. Respondents could choose between three options: less than 50%, 50-80%, and 81-100%. Values between 1 (less than 50%) and 3 (81 -100%) were attached to the scale thus permitting parametric testing.

Crosstabulations between nationality and production-capacity revealed that German SMEs utilise their production capacities to a higher degree than their British counterparts (Table 6.12.).

Table 6.12. Crosstabulation "Country by Utilisation of Production-capacity"

	< 50%	50 - 80%	81 - 100%	Row Total
GERMAN	3.2%	37.1%	59.7%	62
ENGLISH	27.8%	44.4%	     27.8%	36.5%     108   63.5%
Column Total	32   18.8%	71 41.8%	   67   39.4%	   170   100%

Table 6.13. Crosstabulation "Exporting-behaviour by Utilisation of Production-capacity"

	< 50% 5	50 - 80% 8	31 - 100%	Row Total
NO EXPORT	24.8%	47.7%	27.5%	109 64.1%
EXPORT	8.2%	31.1%	60.7%   	61 35.9%
Column   Total	32   18.8%	71   41.8%	67   39.4%	170 100%

Nearly 28% firms of the UK sample stated that they were running below 50% of their capacity. Only 28% were running at high or full capacity. The Pearson chi-square test validated the association of nationality and utilisation of production-capacity as highly significant.

The same test revealed a significant association between exporting-behaviour and utilisation of production-capacity (Table 6.13.). Exporters utilised their production-capacities to a much greater extent than their non-exporting counterparts. 25% of the non-exporters utilised less than 50% of their production capacity.

A MANOVA test, using the unique sums of squares test, was employed in order to determine whether any interaction between nationality and exporting-behaviour as regards the utilisation of production capacity exists and to validate the findings of the chi-square tests. The null-hypothesis of no interaction was accepted. The null-hypotheses of no difference between German versus UK firms, and exporters versus non-exporters had to be rejected at a 5% significance level and hence, added further weight to the outcome of the Pearson chi-square tests.

Additional testing for differences between different sizes of companies and different age groups of companies established no association with companies' utilisation of production-capacity.

Question 20 asked firms whether they had recently expanded their production-capacity or were intending to increase their production-capacity. Overall, two thirds of all respondents indicated that they had recently expanded their production-capacities or were intending to do so. This trend could be established for all types of firms, independent of

nationality, exporting-behaviour, size, or age. However, this lead to the question how this response fits in with the outcome of the previous question which asked respondents to indicate their current utilisation of production-capacity. It was interesting to note that companies which indicated in question 19 that their utilisation of production-capacity was fairly low responded positively to question 20. One possible explanation is that companies which indicated low utilisation of their production-capacity were those that had recently expanded, leaving momentarily spare capacities. Those companies which indicated their intention to increase production-capacity in the near future were those currently running at full capacity, forcing them to expand. However, this needs to be examined further.

Only those companies which had indicated in question 20 that they had recently expanded their production-capacity or were intending to do so, were asked to respond to question 21. Six possible factors that might have influenced firms' decision to expand were presented and respondents were invited to indicate the degree of importance attached to each of these on a scale from very important, important, neither important nor unimportant, unimportant, to not at all important. Values from 1 (very important) to 5 (not at all important) were attached to the scale to permit parametric testing.

Overall, the most important factor for expanding production-capacity was an increased demand on a national level, followed by new contracts from large customers (Appendix 5, Figure 6.32.). A multivariate analysis of variance was employed to test the null-hypotheses of no difference between German versus UK firms, exporters versus non-exporters, and no

interaction between nationality of companies and their exportingbehaviour.

The null-hypothesis of no interaction was validated. At a 5% significance level there was evidence for rejecting both null-hypotheses of no difference. A significant difference between British versus German firms could be established for three factors influencing the decision to increase production-capacity. German companies rated both increased demand on a regional level and increased demand from other EC countries as substantially more important than their English counterparts. Moreover German SMEs rated investment in EC-approved production techniques and machinery as very much more important than their UK counterparts. The comparison of exporting versus non-exporting companies revealed three factors for which a significant difference could be established. Exporters rated increased demand on a regional level as less important than non-exporters but increased demand from other EC countries and from outside the EC as far more important than their non-exporting counterparts which is a result to be expected.

The same test was applied to establish differences between different size or age groups of companies. In both cases the null-hypotheses of no difference could not be rejected.

Question 22 was aimed at determining the nature of companies' production methods in terms of 'highly labour-intensive', 'labour-intensive', 'balance of labour and automation', 'automated', and 'highly automated'. Values between 1 (highly labour-intensive) and 5 (highly automated) were attached to the scale to permit parametric testing.

Overall the results showed that more than 55% of the German companies indicated that their production methods were a balance of labour and automation and a further 20% defined their production method as automated. In the UK sample there was a stronger bias towards labour-intensive production methods. Over 28% of the UK firms indicated their production methods were highly labour-intensive and a further 30% rated them as labour-intensive. Only 2.7% of the UK sample had fully automated production methods.

A multivariate analysis of variance was employed to test for differences between UK and German firms, exporters versus non-exporters and interaction between nationality and exporting behaviour as regards the nature of production methods. The null-hypotheses were no difference between German versus UK, exporters versus non-exporters, and no interaction between nationality and exporting behaviour.

The multivariate test provided no evidence against the null-hypotheses of no interaction and of no difference between exporting versus non-exporting companies. The null-hypothesis of no difference between German versus UK firms had to be rejected at a 5% level of significance. This suggested, that on average, production methods of the SMEs in the German sample are more automated than those of their British counterparts.

Additionally, the data was tested for differences between size and age groups of companies. The outcome of the Manova, using the unique sums of squares test established no evidence against the null-hypothesis of no differences between different age groups of companies. A significance value for F of 0.052 was only fractionally above the threshold of 0.05 when

testing for differences between different company sizes. This suggested that it is likely that there are differences between the different size groups. Reducing the six different size groups to only three size groups established that differences were significant at a 5% level. The data showed that with increasing size companies' production methods become more automated.

The next question (23) asked companies to indicate the approximate age of the majority of their production machinery on a scale from 'up to 1 year old', 'between 1-4 years old', 'between 5-9 years old', 'between 10-20 years old', to 'over 20 years old'.

The majority of firms in both countries had bought production machinery between 5-9 years ago. However, in the German sample there was some bias towards more recent purchase of machinery (1-4 years) whereas in the English sample there was a slightly stronger tendency towards production machinery that had been purchased between 10-20 or even more than 20 years ago (Appendix 5, Figure 6.33.). Using crosstabulation and the Pearson chi-square test revealed no association between nationality and age of production machinery.

A comparison of exporters and non-exporters established a similar picture (Appendix 5, Figure 6.34). The majority of exporters and non-exporters stated that the majority of their production machinery is between 5-9 years old. On average it appeared that exporters tended to have slightly younger production machinery whereas more non-exporters had machinery which is 10-20 years old. Crosstabulation using the Pearson chi-square test established no evidence against the conjecture of no association between exporting-behaviour and age of companies' production machinery.

Finally, the same test was used to determine whether there was any significant association between company-size and age of production machinery. No such relation could be established.

Question 24 asked companies to indicate on a scale from 'within last year', 'between 1-4 years ago', 'between 5-9 years ago', 'between 10-20 years ago', to 'over 20 years ago' when they last substantially changed their production technology.

The majority of companies in both countries indicated that the latest substantial changes had taken place between 1-4 years ago. Some differences between German versus UK firms were apparent. Within the German sample more firms had changed their production technology within the last year compared to their British counterparts. The latter group contained a comparatively higher proportion that had made substantial changes between 1-4 years ago (Appendix 5, Figure 6.35.). However, crosstabulation using the Pearson chi-square test could not establish any significant association between nationality and timing of change in production technology.

Appendix 5, Figure 6.36. reveals a similar pattern for a comparison between exporting and non-exporting companies. The majority of both exporters and non-exporters had changed their production technology between 1-4 years ago. It was also noticeable that a higher proportion of exporters had changed their production technology very recently (within last year), compared to the sample of non-exporters. However, no evidence against the hypothesis of no association between exporting-behaviour and

latest change in production technology could be established, using crosstabulation and the Pearson chi-square test.

The same test was used to determine whether there was any statistically significant association between company-size and latest change in production technology. No such relation could be established. However, the crosstabulation suggested that a bigger proportion of larger firms (100-200+ employees) had changed their production technology recently (within last year) compared to their smaller counterparts. Finally, the Pearson chi-square could not indicate a possible association between the age of companies and their latest change in production technology.

Question 25 attempted to establish personnel structures within SME companies and whether there were differences between sub-groups within the sample. Employees were grouped into being managerial, scientifictechnical. skilled manual. unskilled semior manual. and administrative/clerical/secretarial staff. Respondents were asked to roughly estimate how many percent of their employees fell into each category. However, it became apparent that very small companies with 1-4 employees had difficulties describing such a breakdown of tasks as employees had to fulfil several roles. In order to avoid distortions in the analysis, all tests were carried out twice, using the entire sample first and then excluding firms with 1-4 employees.

A multivariate analysis of variance test (MANOVA) was employed to test the null-hypotheses of no difference between German versus British firms, exporters versus non-exporters, and of no interaction between nationality and exporting-behaviour. The multivariate test could not establish evidence against rejecting the null-hypotheses of no interaction between nationality and export-behaviour and no difference between exporting versus non-exporting firms. However, the significance value of 0.066 for Wilks' lambda lies only marginally above the threshold of 0.05. The univariate test suggested possible differences between both groups for the variables 'skilled manual' and 'semi/unskilled manual'. Exporting companies appear to have a smaller number of skilled manual staff but more semi or unskilled workers compared to their non-exporting counterparts. However, the result for the multivariate test means this conclusion has to be viewed with some caution.

The null-hypothesis of no difference between German and British firms had to be rejected (value of 0.000 for Wilks' lambda). At a 5% significance level there appeared to be a difference between the two countries for managerial and for administrative/clerical/secretarial staff. German companies indicated that approximately 6% of their employees had managerial tasks compared to over 15% for the British sample. An inverse situation could be established for administrative/clerical/secretarial staff. UK firms indicated that approximately 10% of their employees are involved with these tasks whereas over 15% of the workforce of the German firms are employed for these purposes. A breakdown of employees by nationality is illustrated in Appendix 5, Figure 6.37.

Reanalysis after excluding the very small firms (1-4 employees), using the same test, yielded a similar result. However, the average percentage of staff involved in managerial tasks for the UK sample dropped slightly to 11.3%, still establishing a significant difference between the two countries. This result has two possible interpretations. It is possible that there is a

different understanding of the term manager in both countries. In Germany the term 'manager' is synonymous with a higher hierarchical position within an organisation. This is not necessarily the case in the UK. On the other hand, it is often argued that the overall standard of education and job preparation is higher in Germany. Therefore it appears to be possible that within German companies fewer expensive, managerial staff are employed because lower level management tasks are dealt with by administrative, clerical, or secretarial staff.

The null-hypothesis of no interaction between nationality and size could not be rejected. However, testing the data against size of company, using MANOVA, provided evidence for rejecting the null-hypothesis of no differences at a 5% significance level. For this test companies were grouped into 'small', 'small/medium', and 'medium' sized companies.

Differences could be established for managerial staff and for semi or unskilled staff. Small companies (1-24 employees) have a much higher percentage of managerial staff than their larger counterparts. With increase in size, companies in both countries employed a larger proportion of semi or unskilled staff. When the same test was applied excluding companies with 1-4 employees the null-hypothesis of no difference between companies of different size groups could not be rejected. This confirmed the difficulty for very small companies in establishing a valid breakdown of tasks across their organisation. When the data was tested against age groups of companies the multivariate test established no evidence for rejecting the conjecture of no difference.

Question 26 invited companies to comment on their most recent new product development (NPD) project. Respondents were given a catalogue of

six different choices of NPD activity. Some British respondents (5.5%) indicated that they had not undertaken any NPD. Subsequently the additional category 'not applicable' was introduced for the purpose of analysis. A breakdown of the different types of NPDs for companies in both countries is provided in Appendix 5, Figure 6.38. and for exporting versus non-exporting companies in Appendix 5, Figure 6.39.

Crosstabulation of nationality and type of NPD revealed evidence against the hypothesis of no association (Pearson's chi-square of 0.026). The main difference between the UK and the German sample appears to be the stronger emphasis German companies place on improving the performance of existing products (35.5%). Only 21% of the British sample considered their NPD as being concerned with this issue. Only a small number of German firms indicated their NPD involved minor improvements to existing products. 11.3% of the German sample had embarked on their NPD with the aim of reducing the cost of existing products compared to 5.5% of UK firms.

Crosstabulation of export-behaviour and NPD revealed evidence against the hypothesis of no association (Pearson's chi-square of 0.028). Differences to be observed were that exporters placed stronger emphasis on improving the performance of existing products and on improvements to cut costs of existing products. Non-exporters placed considerably stronger emphasis on developing products to increase the breadth of the product line (26.4%), compared to 11.5% of the exporting companies.

No association could be established for company size or age of companies and NPD using crosstabulations and the Pearson chi-square test.

Question 27 asked companies to indicate from a choice of 7 sources whether NPD was undertaken through collaboration with other institutions or through internal research. An additional category (not applicable) had to be used in the analysis.

When comparing German and UK South West firms it became apparent that the majority of companies in both countries had undertaken their NPD through internal company research followed by cooperation with suppliers and/or buyers. A comparatively larger number of German companies indicated that they had undertaken NPD in cooperation with buyers and/or suppliers. As the preconditions of a valid chi-square test were not fulfilled crosstabulation using the Pearson chi-square test could not confirm any association. More than 20% of the cells were below the expected frequency of 5.

A comparison of exporting versus non-exporting companies showed no differences between the two samples. Again the majority of both exporters and non-exporters had undertaken their NPD through internal research. Between 26-28% in both samples had cooperated with buyers and/or suppliers. With more than 20% of cells with frequencies below 5, a Pearson chi-square test for association could not be accomplished.

Furthermore no association between company size or age and through whom firms' latest NPD had been undertaken could be established using crosstabulations and the Pearson chi-square test.

Question 28 asked respondents to indicate on a scale from 'heavily', 'some extent', to 'not at all', how strongly they were relying on different sources of finance. Values between 1 (heavily) to 3 (not at all) were attached, thus

permitting parametric testing. Nine different sources of finance were listed and companies had to comment on each. Similar as with other questions (e.g. question 11), some companies only commented on those sources of finance on which they were relying. This generated the problem of having missing values. It appeared to be a valid assumption that those missing values indicated companies were not using this source of finance. Therefore all missing values were recoded and given a value of 3 (not at all).

Overall, retained profits were mentioned by the majority of firms as the most important sources of finance, followed by bank loans, bank overdrafts, and personal loans to the business. The mean values and standard deviations for all sources of finance are illustrated in table 6.14.

Table 6.14. Overall Reliance on Sources of Finance by SME firms

	Mean	Std. Dev
Retained Profits	1.872	.799
Bank Loans	2.145	.762
Bank Overdrafts	2.182	.733
Personal Loans to the Business	2.494	.729
Government Grants	2.709	.468
Loans from Non-Banking Sources	2.744	.555
EC Grants	2.843	.381
Government Subsidies	2.901	.336
Issuing Shares	2.919	.332

A multivariate analysis of variance was used to test the hypotheses of no interaction between nationality and exporting-behaviour and no difference

between German versus English, exporting versus non-exporting companies as regards the reliance on sources of finance.

The multivariate test found no evidence for rejecting the hypotheses of no interaction and no difference for exporters versus non-exporters. However, a significance value of 0.000 for Wilks lambda indicated that the null-hypothesis of no difference between German and UK South West firms had to be rejected. The univariate test suggested at a 5% significance level that there were differences as regards three sources of finance. German SMEs seemed to rely more on bank loans and less on loans from non-banking sources compared to their British counterparts. UK firms appeared to rely more on bank overdrafts. When the same test was undertaken excluding missing values, the outcome in terms of differences between the samples was identical. However, the null-hypothesis of no interaction had to be rejected. The MANOVA-test suggested interaction between nationality and exporting-behaviour for two sources of finance: bank overdrafts and issuing shares.

Applying the same test for differences between size and age groups of firms revealed that in both cases the null-hypothesis of no difference could not be rejected.

Question 29 examined factors that could influence companies' procurement decisions. A list of 12 factors was given to respondents and they were asked to rate each factor in terms of importance. A factor could be considered as very important, important, neither important nor unimportant, unimportant, or not at all important. Values between 1 (very important) and 5 (not at all important) were attached.

Overall, companies rated quality, reliability of supply, price, and availability of materials as the most important factors in their procurement decisions. All factors, their mean values and standard deviations of importance are listed in table 6.15.

Table 6.15. Importance of Variables for Procurement Decisions (entire sample)

	Mean	Std.Dev
Quality	1.182	0.402
Reliability of Supply	1.491	0.580
Price	1.606	0.581
Availability of Materials/Products	1.752	0.776
Long-establ. Relationship with Supplier	2.194	0.723
Quality of After-sales Service	2.285	0.974
Choice of Materials/Products	2.461	0.985
Terms of Payment	2.503	0.853
Sufficient Info through Sales Reps	2.600	1.087
Incentives/Discounts/Reductions	2.788	0.949
Approximity of Supplier	3.006	0.927
Improved Purchasing Possibilities from EC	3.188	1.172

A multivariate analysis of variance was used to test the hypotheses of no interaction between nationality and exporting-behaviour and no difference between German versus English firms or exporting versus non-exporting companies as regards the importance of factors influencing procurement decisions.

The multivariate test did not provide evidence for rejecting the nullhypotheses of no interaction between nationality and export-behaviour and no difference between exporting and non-exporting firms. A significance value of 0.001 for Wilks' lambda resulted in rejecting the nullhypothesis of no difference between German and British SME firms. The significance values for F in the univariate test suggested that at a 5% significance level that there were differences between the two samples for four factors. These were quality, choice of materials/products, sufficient information by sales representatives and improved purchasing possibilities from other EC countries. UK companies rated quality slightly less important than their German counterparts. A rather more substantial difference was apparent for choice of materials/products and sufficient information by sales representatives. These are seen as more important by the German firms. A large divergence in opinion exists for improved purchasing possibilities within the EC. UK companies rated this factor as rather unimportant whereas German companies rated this factor as quite important.

Additional MANOVA-tests were used to establish whether there were differences between different size or age groups as regards factors influencing procurement decisions. The null-hypothesis of no difference between different size groups of firms was validated. However, the null-hypothesis of no differences between different age groups had to be rejected (significance value for Wilks' lambda below 0.005). At a 5% significance level there was a difference between different age groups of companies for 'long-established relationship with suppliers'. With increasing age companies rated long-established relationships with suppliers as increasingly more important.

Question 30 asked respondents to indicate on a scale from very much larger, quite larger, no change, quite smaller, to very much smaller how the size of their companies' workforce has changed over the last 3 years.

Values between 1 (very much larger) to 5 (very much smaller) were attached.

The overall distribution of responses suggested that the size of the workforce in the majority of companies in both countries has not changed over the past 3 years (45.5% UK, 46.8% Germany). Approximately 33% of the German and UK companies indicated that the size of their workforce has increased slightly. This gave an early indication of no major differences between German and UK South West companies. A MANOVAtest was employed to confirm this by testing the null-hypotheses of no difference between German versus UK firms, exporters versus non-exporters and no interaction between nationality and exporting-behaviour. In all three cases the null-hypothesis could not be rejected. Additional MANOVA-tests provided no evidence for rejecting the null-hypotheses of no difference between size and age groups of companies as regards change in size of workforce.

Question 31 examined to what extent the average productivity per employee has changed over the past 3 years. Respondents were asked to indicate on a scale from increased greatly, increased slightly, no change, decreased slightly, to decreased greatly the degree to which average productivity per employee has changed. Values between 5 (increased greatly) to 5 (decreased greatly) were attached.

The overall distribution of responses for companies in Germany and the UK South West indicated that their average productivity per employee has increased slightly over the past 3 years (UK 50%, Germany 60%). 29% of the British SMEs and 24% of the German SMEs stated that their productivity has increased greatly. A fifth of the firms in both countries

has not noticed any change as regards the productivity per employee over the past 3 years.

A multivariate analysis of variance tested the null-hypotheses of no interaction between nationality and exporting-behaviour and no difference between German versus UK firms or exporters versus non-exporters. In all three cases the null-hypothesis could not be rejected which suggested that there were no statistically significant differences between these subgroups.

Testing the data against size and age groups, using the MANOVA-test could not establish evidence against the conjecture of no difference between different size groups. However, a significance value for F of 0.050 for the unique sums of squares test suggested that the null-hypothesis of no difference between different size groups had to be rejected. With increasing company age productivity per employee gradually increases.

Question 32 asked companies to indicate the priority given to improving managerial skills on a scale from very high priority, high priority, low priority, very low priority, to not applicable. Values between 1 (very high priority) and 5 (not applicable) were attached which would permit parametric testing. Respondents had to comment on eight managerial skills: decision making, problem solving, monitoring others, leadership skills, delegation, communication, time management, and chairing meetings.

Overall, all companies indicated communication, problem solving, and decision making have the highest priority for improvement. Chairing meeting was given the lowest priority (Table 6.16.).

Table 6.16. Priority given to improving Managerial Skills (entire sample)

	Mean	Std.Dev
Communication	1.911	0.830
Problem solving	1.988	0.690
Decision making	2.059	0.705
Leadership skills	2.077	0.880
Delegation	2.183	0.891
Monitoring others	2.367	0.884
Time management	2.373	0.905
Chairing meetings	3.124	1.081

5 = not applicable

A multivariate analysis of variance was employed to test the nullhypotheses of no interaction between nationality and exporting-behaviour and no difference between German versus UK or exporters versus nonexporters as regards priority given to improving managerial skills. The multivariate test established no evidence against the null-hypotheses of no interaction and no difference between exporters versus non-exporters. At a significance value for Wilks' lambda of 0.001 there was evidence for rejecting the null-hypothesis of no difference between British versus German SMEs. The univariate test revealed for one managerial skill a significant difference between the two samples. German companies attached higher priority to improving their managements' ability to chair meetings compared to their British counterparts.

Further MANOVA-tests revealed no significant differences between size or age groups of companies. In all cases the multivariate test established that there was no evidence for rejecting the null-hypotheses of no difference.

Question 33 looked at different areas of logistics such as the handling of raw materials/finished goods, storage of raw materials/finished goods, distribution, and at disposal of waste products. Respondents were asked to indicate on a scale from very high, high, low, very low, and not applicable, priority given to these areas to improve company effectiveness. Values between 1 (very high priority) and 5 (not applicable) were attached.

The entire sample, revealed that there were three areas to which companies attached a high degree of priority. These are handling of work in progress, storage of finished products, and storage of raw materials. All other areas were given lower priority (Table 6.17.).

Table 6.17. Priority given to improving Company Effectiveness (entire sample)

Handling of works in progress	1.814	0.961
Storage of finished products	1.868	0.882
Storage of raw materials	2.084	1.072
Distribution via haulage contractor	2.611	1.113
Disposal of waste products	2.707	1.142
Distribution with own vehicles	2.814	1.334
Distribution via wholesalers	2.820	1.281
Distribution via major customers' vehicles	3.749	1.245

A multivariate analysis of variance was carried out to test the null-hypotheses of no difference between German versus UK SMEs or exporters versus non-exporters and no interaction between nationality and exporting behaviour.

The multivariate test that the null-hypothesis of no interaction could not be rejected at a significance level of 5%. However, there was evidence for rejecting the null-hypothesis of no difference between German and British respondents (significance value for Wilks' lambda of 0.000). The univariate test confirmed that, at a 5% significance level there were differences for four variables between German versus UK firms. These were storage of raw materials, storage of finished products, distribution via wholesaler, and distribution via major retailers' transport fleets. UK firms attached higher priority to the storage of raw materials and finished goods whereas their German counterparts attached higher priority to distribution via wholesalers and major customers' transport fleets in order to improve company effectiveness.

The multivariate test did not support the null-hypothesis of no difference between exporters versus non-exporters. The significance value for Wilks' lambda was only 0.001 above the threshold of 0.05 and therefore rejecting the null-hypothesis appeared to be reasonable. The univariate test confirmed that there were significant differences between exporters versus non-exporters for four variables. These were storage of raw materials, handling of works in progress, distribution via haulage contractors and the disposal of waste products. Exporters gave a higher priority to all four areas compared to non-exporting counterparts firms.

Additional MANOVA-tests were undertaken to test the null-hypotheses of no difference between size and age groups of firms. In both cases the multivariate test found no evidence for rejecting the null-hypothesis, suggesting no differences between the subgroups.

#### **CHAPTER 7**

### **CONCLUSIONS**

#### 7.1. Introduction

All three surveys provided data on the general composition of the samples as regards the size and age of companies, type of business and their exporting/importing behaviour. Results indicated a consistency within the composition of the sample throughout all phases of the research programme. This suggested that the respondent frame for all three surveys is compatible and meaningful comparisons can be drawn from the results across the entire survey process.

Respondent SME companies in both countries are predominantly single site businesses. UK South West firms tend to be much smaller and younger than their German counterparts. A relatively small number of UK firms are involved in exporting whereas the majority of German companies are active exporters. The findings suggest a strong link between size and exporting activities. Larger firms are far more likely to be involved in exporting than their smaller counterparts. The smaller non-exporting UK South West firms tend to trade mainly within regional boundaries.

The first survey suggests that a larger percentage of those UK firms who export, seek trade with US and Canadian markets, whereas German exporters prefer trading within Europe. UK firms' preference to export to the Canadian/USA market can possibly be attributed to the absence of language barriers and to a stronger cultural affinity between the countries. It is apparent that German exporters have established stronger trade-links with Eastern Europe. It is very likely that the orientation

towards Eastern European markets can be attributed to German reunification and the collapse of the former Eastern Bloc which facilitated entry into these markets. A survey by the DIHT (1992) supports this view.

SME firms, both in Germany and the UK, rate competitors from within national boundaries as the strongest threat to their competitive position within the environment of the Single European Market. However, it is interesting to note that UK South West firms are far more concerned about regional competitors than their German counterparts. The latter expect strong competitive pressures from outside their national boundaries, particularly from other EC countries. German SMEs' strong export orientation is positively correlated with a heightened awareness of international competition. Hence, it can be concluded that increased contact with foreign competitors in international markets leads to greater awareness of possible threats from an influx of international competitors into existing home-markets. In contrast, the fact that most UK South West firms are trading exclusively within regional UK South West markets possibly makes them far less aware of post-1992 competitive threats from the continent.

## 7.2. Conclusions drawn from survey 1

The primary aim of the first survey was to determine whether companies are aware of changes in the enlarged Single European Market which might affect their future competitive position. The stated hypothesis was that SME companies in Germany and the UK South West utilise business planning concepts and can identify those variables which may have impact on their internal and external business environments.

The results confirm that companies in both countries are able to distinguish between the relative importance of variables that they perceive as having an influence on their competitive position in the post-1992 environment. Companies in both countries rate specific variables such as product quality, existing legal regulations, communication facilities and gathering information on EC issues (e.g. new legislation) as highly important in a Single Market context. However, despite some similarities in companies' perceptions, differences between German versus UK and exporting versus non-exporting companies are apparent.

German firms identified considerably more variables as crucially important to their post-1992 competitiveness than their UK South West counterparts. Those variables identified as more important by the German firms suggest a more balanced view about external and internal variables. UK firms in contrast seem to be mainly concerned about the influence of external variables on their business activities. The apparent unwillingness of UK firms to identify crucially important internal variables possibly suggests a more limited understanding of their competitive position. The fact that German firms identify several critically important internal

variables suggests a stronger orientation towards improving internal capabilities as a mechanism for responding to external challenges.

This view is further strengthened by the results of the factor analysis which was carried out for all variables in the first survey. "Factors" consist of several variables which are statistically strongly correlated, suggesting that respondents attribute a similar high (or low) mean score to all of these variables. German firms generally attribute equally high mean scores to variables comprising a "factor". UK South West firms on the other hand only attribute equally high mean scores to some of the variables within such a "factor". The remaining variables within a factor are given rather low mean scores. This possibly suggests some difficulties by UK South West SMEs in clearly identifying the more complex interrelationship which may exist between variables. It appears reasonable to suggest that German firms have a clearer perception of the interdependence of variables which shape their competitive position.

This can be illustrated by the following example. Although all firms attached highest importance (high mean score) to 'product quality', it is only the German firms which also consider the correlated variables 'product innovation & development' and 'pricing strategies' as equally important. Companies aiming at a premium quality strategy should consider all three variables. It follows that product innovation & development has to be employed to maintain or increase differentiation. Moreover, marketing highly differentiated, high quality products usually has to be accompanied by pricing strategies aimed at specific segments in the market.

German firms perceive their advertising budget as being a crucial influencer of performance. Strongly differentiated products require substantial promotional activities to communicate specific benefits to the target segments. The German SMEs also place greater importance on cooperative marketing efforts. This philosophy permits the high costs for promotional activities to be offset by pooling resources with other companies marketing similar or related products. Within this context it is interesting to note that German firms also place stronger emphasis on the availability of external marketing services, which suggests among German firms a greater willingness to seek external advice where internal capabilities are less developed or too costly to implement.

Both German and UK SMEs perceive distribution channels as an important influencer of their post-1992 competitive position. Factor analysis established a strong correlation between the variable 'distribution channels', 'external communication procedures', 'internal communication procedures', and 'supplier links'. Again it is of interest that UK firms only assign high mean scores to 'distribution channels' and 'external communication procedures', identifying them as crucially important to their competitive position. German firms assign equally high mean scores to the variables 'internal communication procedures' and 'supplier links' which also comprise this factor. This suggests that the German firms perceive internal communication procedures as important in effectively managing distribution procedures. Moreover, it can be concluded that German firms have a broader perspective about the distribution process. They are equally concerned about supply channels. This possibly suggests the German firms are more aware that improving the flow of materials through the supply channel assists internal processes and also outbound logistics.

Both UK and German SMEs realise the importance of gathering information on EC issues (e.g. new legislation & implications, international price structures, knowledge about foreign products). It appears, however, that only in the case of the German firms is this attitude translated into a heightened awareness of the importance of installing adequate managerial systems or having appropriately skilled staff to deal with these complex issues. The German firms place much stronger emphasis on their staff's ability to deal with European business procedures and being familiar with new EC accounting standards.

The UK sample revealed concerns about external financial factors, suggesting a strong influence of financial stakeholders on firms' entrepreneurial activities. Possibly this dependence on external sources of finance may force UK firms to concentrate on short-term financial performance. It is widely acknowledged that UK banks require a much faster return on finance they provide to businesses compared to German financial institutions (Wever and Allen 1992).

UK firms also rate the availability of non-skilled labour as more important than their German counterparts. This possibly indicates a stronger reliance on low cost labour in order to minimize manufacturing costs. Thompson (1992) suggests that UK firms' aim to lower their cost base in order to boost profits and return on investment might be linked to pressures from external providers of finance who want to maximise immediate returns on their capital investment. He argues that UK firms show stronger dependence on low cost labour in order to achieve this aim.

In contrast, German firms are more concerned about the availability of skilled labour. However, they simultaneously indicate high labour and employee benefit costs as important influencers of their competitive position. Direct and indirect labour costs in Germany are among the highest within Europe and hence contribute substantially to increasing costs of manufacturing. However, it is also noticeable that German firms place greater emphasis on the social environment and well-being of their workforce which is expressed by concerns about costs of housing and social climate. This suggests for the German firms that investment in human resources and creating loyalty among highly skilled employees is given a higher priority by German firms compared to their UK counterparts.

Companies in the German sample identified increasing costs of waste disposal as an important variable influencing their price competitiveness in a Single European Market. The German government is at the forefront of ecological concerns within the EC and has already implemented (or is about to implement) a plethora of new regulations, influenced by EC legislation, which will pose considerable cost constraints on companies. Smaller firms are disproportionately more affected than larger firms. It is therefore interesting to note that although both UK and German firms appear to be equally concerned about other existing legislation (e.g. hygiene, health and safety etc.), UK firms are far less concerned about EC-influenced ecological legislation such as waste disposal.

UK firms attribute a higher importance to seeking external support for machinery servicing. This might indicate that firms in the UK South West do not have the internal capabilities to maintain their machinery (e.g. lack of skilled experts). It is also possible that production machinery is older

because UK firms replace machinery at a lower rate and this could lead to more frequent breakdowns. Finally, another possible explanation is the peripheral geographical position of the UK South West may lead to a thinner service network, delaying urgent repairs and machinery maintenance.

UK firms indicate a strong concern about cooperation and flexibility of regional authorities. This could suggest that UK firms perceive a stronger dependence on decisions taken by regional authorities affecting their competitive position. It is possible that firms show some discontent with local authorities as these are often seen as obstacles rather than facilitators of entrepreneurial activities (Birley 1989).

The first survey revealed differences between exporting and non-exporting companies' perceptions of critically important variables. Non-exporters only rate three external variables as important influencers of their competitive position; namely national economic growth, proximity of customers and proximity of suppliers. Compared to their exporting counterparts, it is noticeable that non-exporters are chiefly concerned about variables affecting their trading position within regional or national markets. Non-exporters, and particularly those companies trading within small, regional areas, show little concern about the possible influx of international competitors after 1992. No EC-related variables are considered to have influence on their competitive position.

Exporters, in contrast, perceive variables such as the nature of their distribution channels, or being informed about EC-related issues as more critically important. External industrial policies and regional incentives are also perceived as important influencers of trading activities. This can

be particularly crucial when companies attempt to establish international business activities. Hence, it can be suggested that regional incentives or industrial policies are perceived as playing an important role in supporting exporters in their efforts to expand international business activities.

As would be expected, currency exchange rates are also seen as more crucially important by exporters than by non-exporters. However, the degree of importance exporting firms place on exchange rates is not very high. It may possibly be assumed that established exporting firms have found ways to avoid exchange rate-related risks adversely influencing their successful entry into foreign markets .

# 7.3. Conclusion drawn from survey 2

The main aim of the second survey was to determine SME firms' perceptions about their future competitive position within the Single European Market. It was of interest to establish whether German and UK South West firms are able to determine the impact of the changes caused by the Single European Market environment on their external and internal environment.

The research hypothesis was that SME companies have a clear understanding of how their competitive position is affected in the post-1992 European business environment and hence can clearly indicate their position on a competitive continuum. The results, however, show that variables identified as being important influencers in the first survey are not necessarily translated by firms into a very distinctive assessment of pronounced advantages or disadvantages.

Virtually all the German firms appear to be able to determine how the post-1992 environment will affect their competitive position. In contrast, the overall impression among UK respondents is a lack of understanding about whether change represents opportunities or threats. The exception appear to be UK South West exporting firms who, relative to non-exporters, are able to identify some variables such as production capacity, product innovation & development and product quality as advantages, and staff's European business capabilities and the cost of waste disposal as disadvantages.

This suggests that indifference about the impact of the Single Market is not a general attitude among all UK South West firms, but is confined to those firms trading within regional and local boundaries. It is very likely that these firms do not anticipate any major implications from the implementation of the Single European Act as they are not in a position to exploit new export opportunities. A possible influx of foreign products which might erode their previously protected home markets does not appear to be perceived as a likely threat. This gives further weight to the picture which already emerged after the first survey; namely German firms, both exporters and non-exporters, appear to be much more aware of the impact of changes within the EC environment. Therefore it has to be concluded that the research hypothesis for this stage of the research programme is validated in the case of the German SMEs but not for their counterparts in the UK South West.

All companies perceive product quality as providing the strongest competitive advantage within the Single Market environment, but it is noticeable that UK firms are less confident about their degree of advantage than the German companies. Both German and UK exporters rate their product quality higher than their non-exporting counterparts. This suggests that firms trading in international markets, particularly within the Northern European area, base their competitive advantage on product performance offering pronounced tangible and intangible product benefits. Competing on low prices does not appear to be a favourable option among UK and German exporting firms.

Factor analysis suggests that product innovation & development is strongly correlated with product quality. German firms assign equally high mean scores to both variables. This situation further supports the view that German firms follow a strategy of maintaining superior performance

and differentiation by continuously updating and improving tangible and intangible product benefits.

German firms see themselves in an advantageous position in relation to both their distribution channels and links formed with suppliers within the EC. Both variables are strongly correlated. German firms are situated within the so called "Golden Triangle" which comprises the EC's most prosperous markets. Hence, German firms are geographically in a better position to service important EC markets and to exploit new, cheaper sources of raw materials from other EC countries. In contrast UK South West firms are in a peripheral location within the EC and may face difficulty building strong distribution links with customers in mainland Europe.

Distribution channels and links with EC suppliers are also strongly correlated with staff capabilities in the area of European business procedures. It appears that German firms are more confident about trading within an international business environment, possibly because their more experienced staff are able to establish European business links within available distribution channels. This is contrasted by their UK counterparts who clearly feel at a disadvantage as regards their staff's capabilities in an international business environment. However, it is not possible to determine from this study whether capabilities of staff are cause or effect of not being more actively involved in pan-European business activities.

German firms exhibit strong concerns about cost factors such as waste disposal, labour costs and employee benefit costs. They identify these substantially higher cost factors, compared to their European neighbours,

as a strong disadvantage within the Single European Market environment. It follows that German SMEs perceive their high costs of manufacturing as having a negative impact on their price relative to competition. It is interesting, however, that German non-exporters see themselves less at a disadvantage compared to their German exporting counterparts. It is very likely that German exporters are more aware of lower cost international competitors in their export markets and therefore are much more aware of a possible influx of cheaper foreign products, eroding their domestic market positions.

Finally, UK firms feel at a disadvantage as regards their country's economic growth rate. This is not surprising if one considers the recent deep recession in the UK. German SMEs attribute only a very modest competitive advantage to Germany's economic growth rate which is very likely due to Germany's growing economic problems following reunification.

### 7.4. Conclusions drawn from survey 3

For the third survey the hypothesis was that SME companies, actively responding to the challenges of the Single European Market, have devised a strategic business plan in which all factors of importance concerning disadvantages or advantages have been incorporated. Therefore, the three issues addressed in the survey were:-

- a) the nature of SME companies' future business objectives, strategies, and plans
- b) Companies' perceptions about market opportunities that exist
- c) Companies' perceptions about their internal capability to exploit market opportunities

The survey results indicate that despite firms in both countries acknowledging the importance of market research and marketing planning, the only response by UK firms is to establish some generalised business objectives. German firms, in contrast, indicate that they place great importance on formulating detailed strategic plans which encompass specific Single Market scenarios. This further substantiates the view that German firms are much more actively involved in the Single Market environment compared to their UK counterparts. On the other hand the apparent lack of strategic planning in UK firms is not surprising given the indifference towards the potential impact of the Single Market revealed in the earlier survey.

It seems that the research hypothesis for this stage of the study can only be partly validated because it is only the German firms who are actively involved in devising strategic response plans for the Single Market. This does not appear to be the case for the UK South West firms who responded to the questionnaire.

When describing their main business objectives, most companies in both countries clearly expressed that they favoured their enterprise to grow at a steady pace. The survey design did not permit actual comparison of growth rates between companies in both countries. Using Ansoff's (1984) product/market matrix, however, it was possible to establish the way which firms attempt to expand their operations. Most UK firms follow the lower risk market penetration approach of trying to increase sales for existing products in existing markets. Their German counterparts utilise both market and product development strategies, introducing new products to existing markets and, simultaneously, entering new markets with established products.

Within their strategic plans, German firms attach importance to monitoring competitors. This shows a greater awareness and possibly a more pro-active responsiveness towards competitive threats. The more enlightened nature of the German firms' strategic approach possibly means they expect to encounter more competition in different market segments. Moreover, with increased international business activities and exposure to potential foreign competitors, this has increased their awareness of threats to their existing domestic markets.

In relation to company goals, German and UK firms both emphasise increasing market share and turnover ahead of achieving higher profits. This contradicts earlier research findings that UK firms are strongly orientated towards short term performance goals such as profitability or return on investment (Shaw and Doyle 1991). The survey shows that

increasing profitability over the longer term is equally important to German and UK firms and that high short-term profits is given much lower priority.

Improving cash flow seems to be a major concern among the very small firms in the UK sample. It can be suggested that smaller firms suffer disproportionately from under-capitalisation than larger firms and thus are more vulnerable to negative cash-flow (e.g. slow paying debtors). These cash-flow problems can often only be resolved through obtaining bank overdrafts on which many smaller UK firms rely as a major source of business finance (Eglin 1992).

Companies' perceptions of market opportunities described in the survey suggests that in both countries, competitiveness is predominantly based on offering high quality products. This view supports findings from the first survey. Product quality appears strongly correlated with product uniqueness and product design in achieving competitive advantage. It seems that most UK firms in the sample appear to have a much narrower, specialist customer base than their German counterparts who consider their products as having a wider customer appeal (approx. 50% of the customers in the market). Bearing in mind that the majority of German firms are actively involved in exporting it is possible that their products have to appeal to a wider variety of tastes. However, few firms in either country perceive their products as being of mass appeal, suggesting that responding firms usually seek to occupy market niches.

A paradox appears to exist in the price/quality strategies of UK firms, namely offering high quality products at average or low prices. Their German counterparts, in contrast, receive high prices for their products in

the market. This suggests that many UK SMEs adopt the position of 'price takers' with prices set by customers or rivals in the market (Wilson et al 1992). This apparent lack of bargaining power could stem from lack of product differentiation and/or unfavourable market position. German firms appear to be 'price makers', more capable of setting and achieving premium prices for their products. No UK or German respondents indicate cost leadership low price as providing the basis for a competitive advantage in the marketplace.

Product formulations in UK firms are on average twice as old as in the German firms. This possibly suggests the latter consider product innovation & development as a more integral part of their competitive strategy. For the UK companies, the fact that most of their product formulations are older raises questions about whether their statements concerning product quality are actually valid. Furthermore, this situation may also explain why UK firms can only charge an average price for their products.

In this context it deserves mention that New Product Development (NPD) schemes described by German respondents appear to emphasise both performance improvements of existing products and cost reduction. It is also worth noting that German firms are more likely to embark on new product development projects involving cooperation with major customers. The UK firms seem to only consider NPD strategies which focus on minor product improvements. These findings suggest that German firms aim to both maintain premium performance of their products and to extend their product life cycles.

A large proportion of German products appears to be in the maturity or late growth stage of the Product Life Cycle. For the UK sample, more products are in the early growth phase. It has to be stressed, however, that the UK respondents in the sample are on average much younger than their German counterparts and therefore this has to be considered as a possible explanation for this apparent difference.

Distribution channels and efficient supply are seen by companies in both countries as being important for achieving competitive advantage in the marketplace. Both variables are strongly correlated. It is noticeable that exporting SMEs place high importance on the quick and efficient flow of goods through the distribution channel. The UK South West firms sell mainly to local and regional outlets, both catering and retail, whereas the majority of sales by German firms are through regional, national or even EC-based retail chains. German firms place great emphasis on building strong relationships with wholesalers and retail chains. It also appears that German firms have a stronger service orientation, tailoring distribution procedures to fit their customers' distribution networks.

The majority of the German companies utilise 81-100 percent of their production facilities possibly reflecting the influence of reunification which stimulated increased demand for West German products in the former East German market. Production facilities in UK South West firms appear to be heavily sub-optimised, operating at 50% of capacity. For the UK firms, the recent deep recession possibly accounts for production facilities standing idle. An apparent paradox is that despite wide-spread sub-optimisation of production facilities, two thirds of UK respondents claim to be planning and/or have expanded their operations. The figure is similar for the German firms. In this latter case the response seems much more

plausible given the number of companies operating at near maximum capacity. The main reason for expansion given by German firms is their expectation of increased demand both domestically and from other EC countries. Moreover German SMEs identified the importance of investing in EC-approved production techniques and machinery in order to be lawfully able to trade across the EC-market. These findings again clearly show that German SMEs are intending to exploit market opportunities arising in other EC countries in the post-1992 period. Many UK South West firms seem to concentrate their efforts on further penetrating existing regional and national markets, rejecting the idea of being able to exploit opportunities elsewhere within the Single Market.

The survey indicates that UK firms have rather labour-intensive production methods compared to their German counterparts who employ balanced automation/manual production processes or very automated production technology. UK firms use production machinery and technology which is twice as old as that of the German respondents. This suggests that German firms update their production processes more frequently. As German direct and indirect labour costs are amongst the highest in Europe, this is probably why German firms seek to automate their production processes as much as possible. The lower labour costs in the UK possibly puts less pressure on companies to automate their production processes and may explain the more relaxed attitude about the need for automation (Thompson 1992).

Cost cutting measures appear to be increasingly important to the German respondents. The previous survey has already suggested that German firms feel disadvantaged in the post-1992 environment due to costs being substantially higher than in other EC countries. Hence, findings of this

third survey suggest that while product differentiation is seen as a major provider of future competitive advantage, the implementation of cost reductions in production processes is also a near term strategic priority.

The survey established that over the last three years a significant number of UK and German companies appear to have increased their productivity per employee and concurrently increased their number of employees. A smaller number of respondents has increased productivity and concurrently maintained employee levels. Only a few companies appear to have actually reduced their number of employees and concurrently increased productivity per capita. This situation, in context with some of the findings presented earlier, seems to provide some interesting implications. Given that the German firms in the study have more automated production technologies compared to their UK counterparts, one might have assumed that more German companies would have maintained or lowered its employee levels in order to achieve higher productivity. The fact that employee levels were increased may suggest that German companies were forced to expand their workforce in order to rapidly meet increased demands. Therefore claims by German firms to have recently expanded their operations appear to be substantiated. For the UK firms in the study these findings lead to a seemingly paradoxical situation. Predominantly labour-intensive production methods in UK firms are likely to make it difficult to improve productivity per head unless more efficient machinery is introduced. Given the sub-optimisation of their production capacities, this raises questions why more staff has been employed over the last few years. This brings up the question of how productivity per employee could have been increased in this situation. Given that many of the responding UK South West firms are operating at

50% of capacity, one might have expected a drop in employee levels in an attempt to reduce costs.

As regards firms' human resource management practices, the survey revealed that German SMEs employ fewer managers and appear to rely more on administrative staff to perform lower level managerial tasks. One possible explanation for this could be that administrative staff in Germany receive substantial vocational training which enables them to perform highly complex tasks within the company. It is also possible that German and UK firms have a different understanding of the scope and definition of managerial roles. Companies in both countries give high priority to improving managerial skills which indicates recognition of the need to further enhance staff competencies within these organisations.

Most responding companies describe 'internal communication' as the most important managerial skill within their organisations and give highest priority to its improvement. Factor analysis suggests that many other managerial skills are strongly correlated with internal communication procedures. Hence it appears that a possible link exists between managing company-internal communication and being able to execute other managerial tasks such as problem solving, decision making, and task delegation.

The survey shows that SMEs in both countries favour self-reliance in their financing decisions. Nearly all companies state that their main source of funding is retained profits. Additionally, it is apparent that German firms use bank loans to a much greater extent than their UK counterparts which possibly indicates a better relationship with their banks. German banks usually take a much more long-term approach to lending

procedures than UK banks. This view is supported by several authors (Wever and Allen 1992, Simon 1992). Considering the fact that a comparatively larger number of UK firms seek finance from non-banking sources highlights a possible discontent with the short-termism of UK high street banks and their lending policies (Chaston 1993). Heavy reliance on bank-overdrafts, particularly by smaller UK companies is noticeable and very likely linked to under-capitalisation and subsequent cash-flow problems mentioned earlier (Eglin 1992).

In their procurement decisions SMEs in both countries place great importance on the quality of materials, although the findings indicate that UK firms are slightly less concerned about this issue. Quality is strongly correlated with other variables such as reliability of supply, availability of materials required and long established relationship with suppliers. German firms place greater emphasis on the choice of materials and the advice or information given by sales staff. Exporting firms, particularly in Germany, place great importance on improved purchasing facilities in other EC countries. As this variable is strongly correlated with price it appears reasonable to assume that exporters are more aware of cheaper sources of raw materials outside national borders. It is interesting to note that payment terms and related incentives (e.g. discounts) are perceived as being rather unimportant by all firms.

Porter (1980) identified five competitive forces which influence a firm's competitive position. These are buyer power, supplier power, threat of new entrants, substitute products and internal rivalry within the industry. The findings give strong indications that SMEs, particularly smaller ones, do not consider all of these five contending forces as being relevant to their competitive position. It appears that the small firms in the survey

concentrate nearly exclusively on competitive threats imposed by buyer power and rivalry within the industry. It can be concluded that in the case of small firms in the food & drink industry, even with an increase in company size and subsequent increased importance placed on the other three competitive forces, SMEs still perceive competitive threats imposed by buyers and by rivals in the industry as being two issues of dominant concern. Other authors add weight to these findings. Fahy (1993) identified increasing buyer power as the strongest competitive threat within the emerging Single European Market and argues that this forces companies into fierce competition within their industry sector. Increased buyer power is seen as a result of increased merger activities which leaves a few large customers in the market. He suggests that firms will find it increasingly harder to compensate for loosing contracts with one or more of their major customers.

The study suggests that small firms have minimal concerns about possible threats imposed by new entrants or from substitute products. Most small UK firms do not place any importance on monitoring or analysing threats from possible competitors. The claim by many firms in the sample of being actively engaged in market research therefore should be viewed with caution as the survey does not provide specific details of the nature or extent to which market research is undertaken. It is also interesting to note that most firms in the sample do not perceive price demands from suppliers as a competitive pressure. In their procurement decisions respondents assigned more importance to quality and service issues than to the price of materials.

#### CHAPTER 8

### IMPLICATIONS AND DISCUSSION

## 8.1. Towards a Strategic Response Framework for SMEs

It has been argued that SMEs, faced with changes in their external environment, have to employ strategic planning to maintain or enhance their competitive position. Many previous authors have stressed the positive correlation between entrepreneurial success in SMEs and the adoption of some form of strategic planning philosophy (e.g. Nagel 1981; Birley 1982; Thurston 1983; Shrader et al 1989; Waalewijn and Segaar 1993).

Robinson and Pearce (1984), in a comprehensive overview of strategic planning practices in small firms, concluded that future research should focus on identifying basic strategic options and variables that influence the strategic planning process in small firms.

D'Amboise (1986) attempted a classification of 22 small business strategic planning models proposed by various authors and identified five broad planning approaches in the SME sector. However, his findings contribute little to reaching a consensus about optimising SME strategic planning processes and he failed to propose a generally applicable strategic framework for the smaller firm. Two common features within the strategic frameworks surveyed by d'Amboise were the importance assigned to the scanning of key variables in the SME firm's environment and applying a SWOT analysis to evaluate the impact of these variables on future performance.

Robinson and Pearce (1984) also stress the necessity of identifying crucial variables as an integral part of SME firm's strategic planning process. Bamberger (1990) attempted a definition of these crucial variables. However, as his research had a strong bias towards owner/managers' value systems, the findings can not be considered comprehensive.

Langer (1988) states that most strategic planning frameworks employed in large organisation are, in principle, neutral to the size of companies. However, he identified their complexity as the main obstacle for adopting these frameworks in the smaller firm. Many strategic planning tools which are utilised in large organisations are of little relevance to the small firm's planning requirements. Langer suggests that a less complex strategic planning framework would possibly be more appropriate to capture SME's somewhat more simplistic operational procedures.

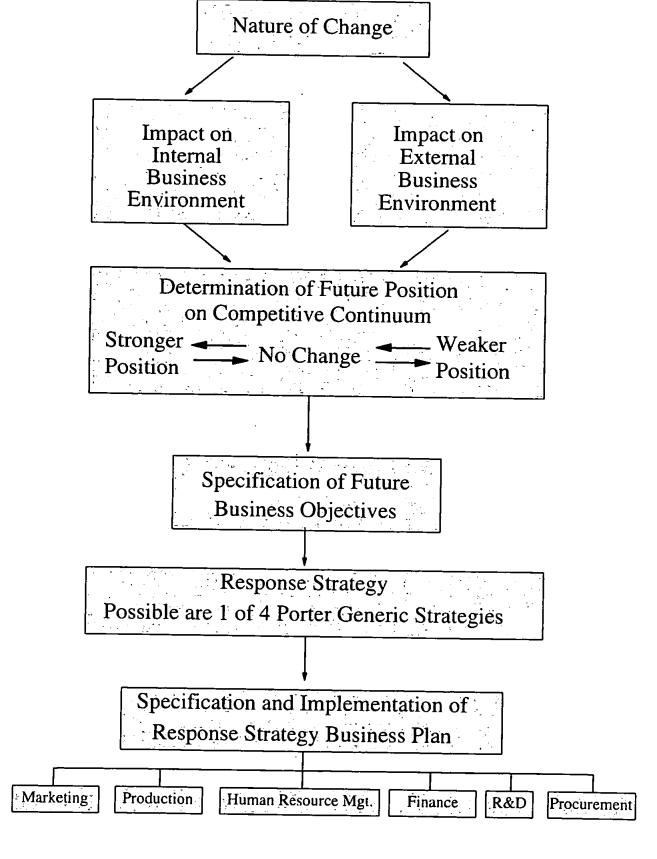
In the first chapter of this study a strategic planning framework has been presented which captures many of the widely acknowledged tools and planning steps utilised within large organisations (Figure 2.1.). By taking into account suggestions made by previous authors (e.g. Nagel 1981; Robinson and Pearce 1984; d'Amboise 1986; Perry 1986; Langer 1988; Bamberger 1990), it is possible to evolve a simplified strategic planning framework for the SME sector of the type shown in Figure 8.1. It is further proposed this framework is suitable for SME companies seeking to respond to changes in the post-1992 environment.

As explained in chapter 5, the research programme mirrored the basic steps of the strategic planning process, examining how companies (i) assess their current competitive position, (ii) define future goals in relation to their perceived position on a competitive continuum and (iii) identify appropriate strategies and plans to achieve their stated goals.

The strategic planning framework proposed in Figure 8.1. meets Langer's (1988) demand for greater simplicity. This framework is presented as a possible 'model of good practice' which any SME firm might follow to respond in a methodical way to changes in the business environment such as the advent of the Single European Market. It is designed to capture many of the proposals made by previous authors but should not be regarded as a panacea for SME companies' apparent problems in managing the planning process. Nevertheless the proposed framework is considered to be an appropriate tool for assessing SMEs' response to the Single Market. Hence, for the purpose of this study, this framework will be employed to compare UK South West SMEs' strategic planning activities relative to their German counterparts.

The proposed strategic planning framework comprises three sequential phases. The first phase requires a firm to determine those variables influencing future business operations. The advent of the Single Market is likely to change many variables in the SME firm's external environment. The SME firm has to gain understanding of which external variables are likely to cause change to its business operations. It can be anticipated that changes in the external environment are likely to affect internal business procedures as the firm attempts to adjust to new external scenarios.

Figure 8.1. Strategic Response to Change

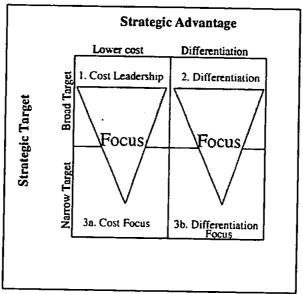


At the end of the first phase of the strategic planning process, the SME company should have a clear understanding of which variables are most likely to affect or change the company's future operations . This knowledge is used in the second phase of the framework, determining how environmental changes will possibly impact the company's position on the competitive continuum. Kast and Rosenzweig (1974) note "Management has a responsibility for maintaining a dynamic equilibrium by diagnosing situations and designing adjustments that are most appropriate for current conditions". Balancing external threats and opportunities against internal strengths and weaknesses, determines whether a company can maintain or improve its competitive position. A firm is only able to determine its likely future position on a competitive continuum and adjust operations accordingly, when it has a clear understanding of how changes in the environment will affect its dynamic equilibrium. This involves determining whether variables identified as being important, provide advantages or disadvantages for future business operations. The intricate relationships between these threats, opportunities, internal strengths and weaknesses finally determine the direction in which the company moves on the competitive continuum.

Having diagnosed the company's future competitive position, the third phase of the strategic response framework comprises three steps. Firstly, future business objectives need to be specified. Existing business objectives may have to be abandoned or adjusted if a substantial shift on the competitive continuum is anticipated. Revised business objectives may focus on exploiting new opportunities or, at the other extreme, on ways to avert a deterioration of the company's current competitive position.

Secondly, in order to achieve defined business objectives, it is likely that the company will select one of four generic strategies proposed by Porter (1980) (Figure 8.2.).

Figure 8.2. The Three Generic Competitive Strategies Adopted from Porter, M. (1980)



The choice of generic strategy is determined by two dimensions; the type of competitive advantage a company possesses and the breadth of market coverage. Porter distinguishes between two distinct competitive advantages; 'overall cost-leadership' and 'differentiation'. These depend on whether a company enjoys a cost advantage or is able to differentiate the product from competition. A company can aim at covering all possible market segments within an industry or focus on specific segments within the market.

The final step within the proposed strategic framework requires the company to specify and implement an appropriate business plan. Each

generic strategy requires a different set of strategic plans in relation to issues such as marketing, production, human resource management, finance, R&D and procurement.

# 8.2. UK South West and German SMEs' performance relative to the proposed strategic response framework

The first survey, covering issues associated with the first phase in the strategic response framework, established those variables, which are perceived by most responding firms as being of crucial importance in the post-1992 environment (Table 8.1.).

Table 8.1. Variables of crucial Importance in the context of the Single European Market (all firms)

Product Quality
Legal Regulations
Communication Facilities
Costs of Energy Supply
Product Innovation & Development
Distribution Channels
Direct Labour Costs
Availability of Energy Supply
Traffic Network
Price Strategies
Costs of Waste Disposal Facilities
Information about new EC Regulations & Implications
Availability of Waste Disposal
External Communication Systems
Availability of Skilled Labour
Production Capacity
Cost of Borrowing
Inflation Rate
Economic Growth Rate
Social Climate
Internal Communication Systems
Note: The mean scores of these variables are between 4 (quite important) and 5 (very important).

Hence, it is suggested that these variables should be considered by any SME firm when devising a strategic response to the challenges of the Single European Market. A comparison of those variables, which German and UK firms perceive to be of importance to their specific competitive position in the post-1992 environment reveals some national variations (Table 8.2.).

Table 8.2. A Comparison of Variables perceived as important by German and UK South West firms

UK South West	Germany
Product Quality (4.76)	Product Quality (4.76)
Legal Regulations (4.59)	Legal Regulations (4.64)
Communication Facilities (4.54)	Product Innovation & Development (4.64)
Costs (4.52) and Availability (4.47) of Energy Supply	Communication Facilities (4.53)
Direct Labour Costs (4.47)	Availability of Skilled Labour (4.52) (*)
Cost of borrowing (4.46) (*)	Distribution Channels (4.51)
Distribution Channels (4.34)	Costs (4.48) and Availability (4.38) of Waste Disposal Facilities
Inflation Rate (4.29) (*)	Price Strategies (4.45)
Traffic Network (4.24)	Info about new EC Regulations & Implications (4.40)
Product Innovation & Development (4.22)	Traffic Network (4.36)
Economic Growth Rate (4.20) (*)	Social Climate (4.33) (*)
External Communication Systems (4.16)	Costs (4.29) and Availability (4.20) of Energy Supply
Production Capacity (4.13)	External (4.28) & Internal (4.19) (*) Communication Systems
rice Strategies (4.13)	Direct (4.24) & Indirect (4.28) (*) Labour Costs
nfo about new EC Regulations & Implications (4.12)	Capability of Staff / European Business Procedures (4.24) (*)
Costs (4.06), Availability (4.10) of Waste Disposal Facilities	Info about Pricing Structures in other EC Countries [4.19] (*)
Cooperation/Flexibility of Regional Authorities (4.00) (*)	Info about Products in other EC Countries (4.16) (*)
	Production Capacity (4.15)
	Supplier Links (e.g. in other EC Countries) (4.01) (*)
	Labour Market Regulations (4.00) (*)

Table 6.6. in chapter 6 illustrates differences in variables which either German or UK respondents perceive more important than their

counterparts. The responding UK firms identify only five variables as being critically important to their specific future competitive position. The German firms, in contrast, identify 15 variables which they perceive as being more influential to their future competitive position. It seems reasonable to suggest the German firms, given the importance assigned to all EC-related variables, are generally more aware of changes which may occur in the Single European Market and possibly more committed to the idea of the Single Market. Moreover, it appears that the German SMEs have generally a more comprehensive perception of possible variables that may affect their specific business operations.

UK South West SMEs appear to be less concerned about EC-related variables which may suggest that the advent of the Single Market is perceived as having less relevance to their future business operations. Table 8.2. shows only one EC-related variable being identified as important by the UK firms, whereas the German firms identify several variables directly related to Single European Market issues.

The second survey covered issues associated with the second phase of the strategic planning framework. It established how variables, identified as being important in the first survey, may affect the position of firms on the competitive continuum. Responding SMEs' assessment of how these crucially important variables translate into advantages and disadvantages is summarised in Table 8.3. With the exception of product quality, the consolidated results fall within a range of +/- 0.5 from the mid-point value of 3.00. This seems to suggest that firms have some difficulty determining the influence of variables on their competitive position.

Table 8.3. Perceived Advantages and Disadvantages (all firms)

Product Quality	3.80
Product Innovation & Development	3.33
Distribution Channels	3.19
Communication Facilities	3.17
Production Capacity	3.14
Traffic Network	3.14
Proximity of Customers	
Availability of Skilled Labour	3.13
	3.10
Social Climate	3.06
Info about Products in other EC Countries	2.98
Pricing Strategies	2.97
Economic Growth Rate	2.94
Inflation Rate	2.88
Info about Pricing Structures in other EC Countries	2.88
Info about New EC Regulations & Implications	2.85
Capability of Staff/European Business Procedures	2.83
Industrial Policy	2.82
Cost of Borrowing	2.81
Cost & Availability of Energy Supply	2.79
Admin. and Accounting Procedures to EC Standard	2.78
Cooperation/Flexibility of Regional Authorities	2.75
Labour Market Regulations	
Indirect & Direct Labour Costs	2.69
	2.63
Cost & Availability of Waste Disposal	2.53
Existing Legal Regulations	2.52
Note: 1 (strong disadvantage), 2 (some disadvantage), 3 (neither advantage) advantage), 5 (strong advantage)	s/nor disadvantage), 4 (some

However, the picture changes when German and UK firms' perceptions are examined separately. Table 8.4. reveals that the UK South West firms are much more undecided about which variables represent future advantages and disadvantages. In contrast, on the basis of the wider divergence from the mid-point score of 3.00, the German SMEs in the sample appear to be

capable of distinguishing more clearly between variables which represent opportunities, threats, strengths, and weaknesses

Table 8.4. Perceived Advantages and Disadvantages by German firms and UK South West firms

German SMEs		UK South West	
Product Quality	4.02	Product Quality	3.66
Product Innovation & Development	3.50	Product Innovation & Development	3.22
Distribution Channels	3.41	Social Climate	3.10
Traflic Network	3.37	Communication Facilities	3.09
Communication Facilities	3.29	Production Capacity	3.08
Production Capacity	3.24	Proximity of Customers	3.07
Proximity of Customers	3.22	Pricing Strategies	3.07
Availability of Skilled Labour	3.19	Distribution Channels	3.05
Economic Growth Rate	3.08	Availability of Skilled Labour	3.04
Info about Products in other EC Countries	3.05	Traffic Network	3.00
Capability of Staff/European Business Procedures	3.03	Inflation Rate	2.97
Social Climate	3.00	Info about Products in other EC Countries	2.95
Admin. and Accounting Procedures to EC Standard	2.88	Info about Pricing Structures in other EC Countries	2.91
Info about New EC Regulations & Implications	2.87	Indirect & Direct Labour Costs	2.91
Info about Pricing Structures in other EC Countries	2.85	Economic Growth Rate	2.87
Pricing Strategies	2.80	Labour Market Regulations	2.87
Inflation Rate	2.74	Industrial Policy	2.86
Industrial Policy	2.73	Cost of Borrowing	2.86
Cost of Borrowing	2.71	Cost & Availability of Energy Supply	2.85
Cost & Availability of Energy Supply	2.68	Info about New EC Regulations & Implications	2.84
Cooperation/Flexibility of Regional Authorities	2.60	Cooperation/Flexibility of Regional Authorities	2.83
Labour Market Regulations	2.41	Cost & Availability of Waste Disposal	2.78
Edsting Legal Regulations	2.35	Admin. and Accounting Procedures to EC Standard	2.72
ndirect & Direct Labour Costs	2.17	Capability of Staff/European Business Procedures	2.71
Cost & Availability of Waste Disposal	2.12	Existing Legal Regulations	2.62
Note: 1 (atrong disadvantage) 2 (some disadvantage) 6 (-		age/nor disadvantage), 4 (some advantage), 5 (strong advantage)	

It can be assumed that the more pronounced view of the responding German SMEs represents a more distinctive assessment of how variables may shape their future competitive position in the Single European Market environment. Results from the German sample suggest that product quality, product innovation & development, and distribution channels may provide some advantage for these firms in a post-1992 context. It appears that on the other hand expected disadvantages are high labour costs (indirect & direct), labour market regulations, cost & availability of waste disposal, and existing regulations.

It seems reasonable to suggest, that having a greater understanding of how variables shape a company's future competitive position is likely to lead to a clearer perception of which strategic approach might be needed to (i) maintain or enhance a favourable position on the competitive continuum or (ii) avoid further deterioration of an unfavourable market position. The depth of understanding of how possible opportunities can be exploited and threats counteracted by maximising company-internal strengths and overcoming identified weaknesses is the prerequisite of successful strategic planning. The apparently more detailed understanding displayed by the responding German firms of how external and internal variables shape their future position leads to the conclusion that their strategic planning approach is likely to represent a more effective response to the post-1992 scenario. This view is supported by Peters (in: Pascale and Athos 1986), who points out explicitly that 'excellent' firms manage a wider range of variables than other, less successful companies.

The third survey covered issues associated with the final phase of the proposed strategic planning framework, examined SME firms' business objectives, identification of market opportunities and assessment of internal capabilities. A comparison of German and UK South West SMEs' business objectives and planning philosophies is illustrated in Table 8.5..

Findings appear to support the assumption that a greater awareness of crucial variables and a clearer perception of their possible impact is likely to lead to a more comprehensive approach to strategic planning. The comparison of planning philosophies and business goals gives indications that the German firms seem to have a more formal approach to strategic planning. Most appear to have formulated detailed strategic plans which incorporate actions for responding to the Single European Market. UK South West firms, in contrast, perceive the setting of general objectives as sufficient in their planning approach. The development of any Single Market action plan seems to be of little concern to this latter group of respondents.

Table 8.5. Comparison of SMEs Business Objectives and Planning Philosophy

German SMEs	UK South West SMEs
Alm for st	eady growth
Aim to increase both M	arketshare and Turnover
Aim to increase lo	ng-term profitability
	Aim to improve cash-flow
Some market research	and marketing planning
Devising detailed strategic plans	Setting of general objectives
Devising Single Market action plans	
Close monitoring of competition	
Market development strategies	Market penetration strategies
Product development strategies	

Findings established that UK South West firms pursue predominantly market penetration strategies when defining their future business objectives. Within four possible product/market options this strategy

represents the smallest entrepreneurial risk as it involves exclusively increasing sales of existing products in existing markets. German firms, in contrast, are apparently less risk-averse, embarking on both product development (new products for existing markets) and on market development strategies (existing products for new markets). It seems appropriate to re-emphasise that German SMEs' appear to have a more comprehensive planning approach which in turn may offer the benefit of reducing the possible entrepreneurial risks associated within their strategic decisions. Conversely, a lack of detailed strategic planning in many UK South West firms may possibly restrict their abilities to implement product/market strategies which require more complex environmental scanning and business planning procedures.

Table 8.6., which compares perceived market opportunities for German and UK South West SMEs, suggests that German SMEs have achieved a wider market coverage in terms of both customer appeal and coverage of sales outlets. German firms' product formulations seem to be more continuously updated compared to their UK counterparts. Although firms in both countries claim their products to be of high quality, this only translates for the German firms into successfully commanding high prices for their products. UK SMEs seem to be in a less fortunate position because they appear to have to accept lower product prices.

Table 8.6. Comparison of SMEs' perceived Market Opportunities

German SMEs	UK South West SMEs
Wider customer appeal of products	Narrow, specialist customer appeal
Sales mainly through retail chains (national & international)	Sales through local/regional outlets
High product quality/premium price	High product quality/low to average price
Younger product formulations (0 - 4 years)	Older product formulations (4 - 9 years)
Products at late growth/maturity stage of PLC	Products at earlier stages of PLC

The fact that UK South West firms' product formulations are on average twice as old as those of their German counterparts raises some doubts about UK firms' claim that their products are of a high quality standard. UK supermarket shelves already display an increasing number of foreign, innovative, premium price products. It seems reasonable to suggest that UK firms will find it increasingly difficult to succeed in the face of international competitors invading their home markets with innovative, strongly differentiated products. German dairy producer Müller's successful launch of 'Fruit-corner' yoghurt into the premium end of the UK food market is just one example of the described scenario.

German and UK South West firms' perceived internal capabilities are summarised in Table 8.7. German firms seem to enjoy a more favourable position as regards their internal capabilities in a comparison with their UK South West counterparts. Furthermore, German firms appear more committed to the idea of the Single European Market because they are willing to implement actions in response to new EC regulations, which directly affect their ability to trade lawfully within the Single Market. German firms also appear to be more active in seeking trading links in

other EC countries (e.g. for the supply of materials). Most UK firms seem to have little interest in establishing trading links across the Single Market and investment in EC-approved machinery and production techniques appears to be perceived as rather unnecessary.

Although it appears that responding companies in both countries claim to base their competitive advantage on product quality, product uniqueness, and product design, a look at companies' NPD activities, described in Table 8.7. seems to further substantiate the view that German firms place great emphasis on actions to improve product performance. This does not appear to be the case for the UK South West firms.

The fact that responding German firms are more likely to embark on NPD jointly with their customers, suggests a stronger customer-orientation when improving or developing new products. In the future, highest possible quality standards alone will not secure sales. It must be accompanied by increased commitment to meeting customers' wishes for producing products to their specifications and offering complex service activities with the product (Shaw and Doyle 1991; Kotler 1992). The second survey established that German firms perceive their distribution channels as providing a competitive advantage in a post-1992 environment. It appears that German firms structure their distribution channels increasingly to the requirements of their major customers which may also be interpreted as an intensification of their customer-orientation. It is likely that the customer-focus displayed by the German firms is part of their attempt to counteract increasing buyer power and industry-internal rivalry by creating stronger supplier-customer relationships.

Table 8.7. Comparison of SMEs' perceived Internal Capabilities

German SMEs	UK South West SMEs
Competitive advantage based on produc	t quality, uniqueness, and product design
NPD aimed at improving performance of existing products & increased cost efficiency	NPD aimed at minor improvements to existing products
More NPD in collaboration with customers	NPD mostly company-internal
Production facilities largely optimised	Production facilities often sub-optimised
2/3 of companies have expar	nded or are intending to do so
Investment in EC-approved production -machinery/techniques	No investment in EC-approved production -machinery/techniques
More automated production methods	Labour-intensive production methods
Production machinery younger Production technology younger	Production machinery older Production techniques older
More promotional efforts	Very little promotional efforts
Reliance on retained p	
Strong reliance on bank loans	Strong reliance on bank overdrafts Strong reliance on non-banking sector loans
Procurement decisions based on quality, reliability established relations Price or terms of payment are is	of supply, availability of materials required, long- ship with suppliers sues of secondary importance
Choice of materials and advice by supplier important	Choice of materials and advice by supplier less important
Purchasing in other EC countries seen as important	Purchasing from EC countries seen as rather unimportant
Improving managerial skills Improving internal communication is seen a	receives high importance s important to solve managerial problems
Improving distribution channels with customers seen as important to improve logistics	Internal storage logistics (materials, semi- or finished products) needs improving
Counteracting increasing threats from buyer power a	and rivalry within industry seen as very important

# 8.3. A feasible Strategic Response to the Single European Market for SMEs in Northern Europe

Porter (1980, 1985) suggests four possible generic strategies to achieve competitive advantage in the marketplace. Two of these, total market cost-leadership and differentiation are usually only appropriate for larger organisations, aiming at all possible segments within the industry.

It appears advisable for SME firms to concentrate on particular segments in the market in which they can "outperform larger companies" (Porter 1980; Cooper 1979; Nagel 1981; Perry 1986; Taylor et al 1990; Fahy 1993). One option is to achieve cost-leadership by having the lowest possible production costs in a specific sector of the market. This enables the firm to offer products at lower prices than competitors.

The second option SMEs can follow is that of focused differentiation. Porter describes this competitive strategy as being based on companies "focussing on selected segments in the industry and tailoring their strategies to serving them to the exclusion of others while seeking differentiation from other competitors' products". This differentiation is based on product performance and/or on other, often intangible, benefits which are unique to the product. Focused differentiation is usually associated with positioning at the top-end of the market. Hence, this strategic approach succeeds on the assumption that customers are prepared to pay a premium price for the high quality and/or unique appeal of the product.

Within the Single European Market environment, firms in Northern European countries, such as the UK, Germany, France, and the BeNeLux

countries, are faced with comparatively high labour and social costs. Moreover, a plethora of new and existing laws have been implemented (e.g. on waste disposal and environmental issues) by their governments which place additional financial burden on Northern European firms (DIHT 1992). In contrast, firms within the Southern European, Mediterranean regions are less exposed to such cost increasing factors. A slower pace in implementing new legislation by their governments and generally lower wage and social costs enable companies to achieve lower operating costs than their Northern European counterparts. For example the average hourly labour cost in Germany is \$16.3 compared to \$4.3 in Greece and only \$3 in Portugal (see table 8.8.).

Table 8.8. A Comparison of Labour Costs in Europe, U.S. and Japan

Hourly Labour Cost, EEC Industry <sup>1</sup> (in Us dollars), Average 1986-1987		
16.3		
13.8		
13.4		
13.3		
12.2		
11.4		
9.1		
9.0		
8.6		
4.3		
3.0		
13.5		
12.8		

Although the UK enjoys relatively low labour costs compared to Germany. France and most other Northern European EC member states, they are still more than twice as high as in Portugal or Greece. This leaves very little opportunity for UK firms to successfully compete on the basis of competitive costs. Moreover, with the collapse of the Eastern Bloc and countries such as Poland or Hungary eager to exploit commercial links with Western European countries, additional low cost producers are likely to enter EC markets. This leads to the conclusion that SME firms in both Germany and the UK will find it very difficult to succeed in the post-1992 environment by adopting a focused cost-leadership approach as they will be outpriced by competitors based in low labour/social cost countries.

Given the characteristics of the technological revolution and productive restructuring underway world-wide, the cost of labour represents a declining proportion of total production costs particularly in the Northern European hemisphere (Curbelo and Alburquerque 1993). Reflecting on peripheral regions such as Spain within the EC, they stress that "...the 'relative advantages' of low salaries are becoming fewer all the time in modern businesses, where the strategic factor is the incorporation of technological information and added value requiring a type of labour which is relatively scarce in peripheral regions". This shows that even countries currently considered low wage countries acknowledge that in the long-term they will not be able to compete solely on low cost advantages. In part this is due to social changes brought about by the Maastricht Treaty which may eventually lead to similar wage structures across the EC in the years to come.

The same argument is presented by Thompson (1992) in the specific context of the British food industry. He issues strong words of warning to

UK businesses trying to build competitive advantage on labour cost advantages in the new Europe: "...dependence on low wages is a strategy with very limited development potential compared to the flow of benefits which are available through investment in training, technology and equipment. Low pay is clearly not a convincing long-term international strategy for a developed country".

Hence it can be argued that the strongest chance of post-1992 survival lies in exploiting innovative ideas using the well developed technical expertise of Northern European workforces to offer products that are highly differentiated and therefore highly competitive in both EC and world markets (Bolwijn and Kumpe 1990; Hörnell 1992). This argument is further supported by other authors commenting on the benefits associated with a strategic orientation towards performance-based competition displayed by German 'Mittelstand' companies (Peters 1991; Blythe 1992; Thompson 1992; Simon 1992).

It appears that the most viable option for SMEs in Northern European regions is to concentrate on a focused differentiation strategy; thereby avoiding a head-on confrontation with low cost/low price competitors. By concentrating on those market segments receptive to differentiated product offerings, SMEs can achieve worthwhile returns on their investment (Todd and Taylor 1993). As mentioned before, a look at UK supermarket shelves appears to support this suggestion for the food and drink sector and already points out the imminent dangers for UK firms rejecting this strategic approach. More and more foreign high quality products sold at premium prices in the dairy, processed meat, beverages, bakery and confectionery sector have begun to establish themselves on the shelves of UK retailers.

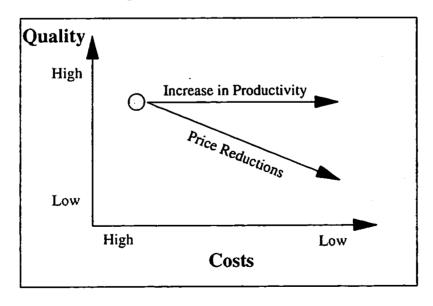
This research strongly suggests that German SME firms base their competiveness on superior product quality, supported by product innovation & development activities to maintain a high degree of perceived or tangible differentiation. Other components of their strategic orientation include relying on extensive skills of their staff, developing powerful distribution networks integrated into those of their major customers, and having a stronger customer focus (Shaw and Doyle 1991; Peters 1991). Hence, it seems reasonable to suggest that the German firms favour a focused differentiation strategy for their post-1992 business operations. Most of the components identified in the German SMEs' strategic approach are a reflection of Porter's (1980) description of this generic strategy. Furthermore comments by other authors on how to gain competitive advantage in the Single Market (e.g. Thompson 1992) further confirm the viability of the German SMEs' strategic approach.

firms display a heightened awareness that their labour/social costs and costs imposed by new legislation (e.g. cost of waste disposal) provide a serious threat to their post-1992 competitiveness, as price competition from other countries is expected to increase. This has been confirmed by other authors and surveys (DIHT 1992). Intensification of fierce rivalry within industry sectors is also expected in the future. The study suggests that these changes do not deter German SMEs from continuing to pursue a focused differentiation approach as they apparently perceive this as the most viable strategic option in a post-1992 European environment. However, it appears that German firms also place strong emphasis on increasing productivity and efficiency (e.g. through automated production processes). This is probably intended to avoid a further widening of the price gap between products of

low cost producers and German companies' premium priced products. This enables firms to maintain their high quality standard and keep price levels competitive, while at the same time minimising further increases in production costs

Hörnell (1992) argues that improving productivity is vital to enhance companies' competitive advantage in the 1990s environment and describes steps to achieve greater productivity. It is interesting to note, that many of his suggestions appear to be reflected in the strategic approach of responding German firms. UK firms in contrast, appear to have reduced cost through a gradual decline of their product quality. Little emphasis is placed on investment in areas such as innovation & development, new production machinery, technology or training of the workforce. Eventually this will lead to lower efficiency and/or quality standards (Thompson 1992) as illustrated in Figure 8.3.

Figure 8.3. Reducing Costs without sacrificing Quality



It should be pointed out that this research does not attempt to attribute German SMEs' strategic planning approach (i.e. focused differentiation, emphasis on increasing efficiency and productivity, etc.), exclusively to the advent of the European Single Market. This is despite the fact that a large majority of German SMEs in the study are actively involved in Single Market activities and describe themselves as having devised Single Market action plans and/or as having implemented measures to trade lawfully within the EC. Instead it appears these Single Market action plans are merely an extension of an established strategic philosophy, which has been in place for many years.

Wever and Allen (1992) argue that German manufacturing industry's success since the second world war is based on a social market economy model, which shaped companies' strategic outlook during the rebuilding of their economy after the second world war. The German social market economy resulted in the high labour and social employee benefit costs which are experienced today. Workforces have been actively involved in shaping companies' economic success and subsequently are able to demand better salaries and social benefits. Wever and Allen (1992) believe, German industry had to base competitiveness from a very early stage on producing premium quality premium price products for domestic and international markets rather than competing against low cost operators from other countries. As the latter enjoy lower direct and indirect labour costs, they were in a position to easily outprice German companies. Subsequently, the label "Made in Germany" has become synonymous for products at the top end of the market, both, in terms of quality and price.

It seems reasonable to suggest that this strategic approach, which lead to the undisputable success of German industry in the last four decades, is also the likely strategic pattern for survival in the post-1992 environment, particularly in the Northern European region (Thompson 1992). If one accepts the validity of this conclusion, it seems reasonable to suggest that the German SMEs in the sample are much further down a successful survival path in the Single European Market environment than their UK counterparts. The German SMEs display: -

- a) more comprehensive skills in scanning their environment and identifying important variables crucial to their future competitiveness.
- b) a clearer understanding of how influential variables affect their position on the competitive continuum.
- c) a better ability to formulate clear strategic objectives which are likely to be more appropriate for the changes detected in their environment, i.e. focused differentiation
- d) more enhanced internal capabilities in implementing the necessary strategic steps to exploit opportunities and counteract threats from their environment.

On the basis of the data acquired in the study, it seems reasonable to suggest that the responding German SME firms are likely to face fewer threats from the changes in the EC environment as they appear better prepared to meet these changes. Their strategic response to the Single Market may be regarded as containing those 'ingredients' that any SME firm, wishing to more effectively respond to the Single Market, should consider in its strategic planning approach.

The study suggests, however, that this does not seem to be the case in UK South West firms as they are apparently faced with several problems in

their strategic response to the changes brought about by the Single European Market. Relative to the response framework presented earlier, UK South West firms appear to display difficulties even in the very first phase of the strategic planning process. Their examination of external and internal variables, which should provide insights into important changes future competitiveness, does not appear be undertaken to comprehensively. As a result, UK SMEs appear unable to assess the advantages and disadvantages that these influential variables may represent. UK firms apparently also have some difficulty identifying decisive internal strengths through which they could withstand possible external threats or exploit opportunities arising from the Single Market. As a consequence, these firms are unable to define clear strategic goals or plans capable of sustaining or improving their future market position.

Several suggestions may be made as to why UK South West SMEs are in this seemingly weaker competitive position when faced with changes in the Single European Market environment. Problems possibly derive from owner/managers of the smaller UK firms being too involved in the day to day running of their business. Subsequently, they are not able to use strategic planning to its full potential, as little or no time is allocated to planning activities (Kilzer and Glausser 1984; d'Amboise 1986; Kirby 1990). This scenario may be linked to the stage of growth of many of the UK SMEs in the sample. Applying Scott and Bruce's (1987) classification of different growth stages of small business, most UK firms in the sample may be considered as being in the 'inception' or 'survival' phase. The accompanying, most likely crisis point which Scott and Bruce identified as being dominant in these two phases, is the inability of the owner/manager to cope with increased managerial tasks. Many German SMEs, in contrast, appear to have advanced into the 'growth' or 'expansion' phase

where managerial tasks are more likely to be delegated and/or planning procedures are more advanced. The third survey in particular, shows some inconsistencies or paradoxes in UK companies' goals and objectives (e.g. sub-optimization of production facilities and plans to expand and to increase employee levels) which may be attributed to insufficient business analysis and planning.

Another recurring finding in the study appears to be, that UK firms are particularly concerned about financial issues which affect their business performance. This view is supported by many previous authors who often blame the UK financial system for not providing enough support for encouraging survival or growth of smaller firms in the SME sector (Joyce et al 1990; Thompson 1992; Chaston 1992). Eglin (1992) points out that 60% of small UK firms are exclusively financed by overdrafts and adds: "..., small firms are at the receiving end of the bank's determination to restore their profitability". Binks et al (1990) identify two major finance shortfalls for UK SMEs which are i) finance for growth and ii) finance for long-term investment projects. They express the hope that the liberalisation of capital markets in a Single European Market will improve this situation as SME firms will become able to seek cheaper bank loans in other EC countries. However, the first survey showed that SME firms in the UK have little interest in obtaining more favourable loans from financial institutions in other EC member states. It therefore may be concluded that Binks' et al (1990) suggestion of cross border search for more favourable business finance does not provide a remedy for UK SMEs in the short term. However, it may be suggested that the existing system may need improvement. Eglin (1992) proposes three measures to rectify the current situation. The first would be to introduce legislation to ensure that large corporations pay their small business bills promptly which

could improve cash flow problems. This is supported by a study of the Manchester Business School for NatWest Bank (1993). Secondly a specialist small business bank has to be created capable of supplying longer term finance at competitive and stable rates. Thirdly, fiscal measures have to be taken to more effectively finance small manufacturing start-ups more effectively.

It appears that problems experienced within the financial sector, coupled with owner/managers inability to get involved in formal strategic planning, are at the heart of the dilemma, facing UK South West firms, attempting to survive the post-1992 market changes. Thompson (1992) argues that financial constraints may hamper the introduction of more advanced production techniques, the employment of highly skilled labour and the investment in more differentiated products, able to compete successfully with other Northern European business rivals. The current recession, both in the UK and in other European countries probably serves to aggravate existing problems as companies are not in a position to take any entrepreneurial risks and are forced to concentrate on low risk/high certainty business activities. In a recent study Chaston (1993) has identified these influences as preventing many UK South West SME companies from becoming more involved in New Product Development activities. Moreover, he concludes that appropriate business support systems for UK South West SMEs are also missing, which further discourages small firms from exploring new entrepreneurial directions.

## 8.4. Recommendations for UK South West SMEs to enhance their strategic response to the Single European Market

If one accepts the validity of the conclusions presented in this study, then UK South West SME firms intending to enhance their position in domestic and overseas markets may want to heed some of the lessons which can be learned from the German respondents. Several recommendations may be derived from the identified strategic response of the German SMEs to assist UK South West SMEs in developing a more effective response to the changes associated with the Single European Market. Adapting these recommendations to their specific scenario could eventually improve the competitive position of SME firms in the UK South West.

The first recommendation is directed at UK South West SMEs' strategic planning approach. The study reveals that relative to the strategic planning framework described in Figure 8.1., UK South West firms display weaknesses at most stages in the planning process. It therefore appears to be essential that SME firms in the UK South West should be encouraged to adopt a more formalised strategic planning approach. This would provide these SME firms with a more comprehensive awareness of all relevant variables in their external and internal environment, likely to affect their business operations in the future. As a result the firms would be forced to consider a wider range of variables than they have done in the past. The large number of variables identified as important influencers by the German SMEs might be used as a guide-line. However, national variations have to be taken into account in order to arrive at an appropriate portfolio of external and internal variables. which comprehensively reflect the specific situation facing SMEs in the UK South West.

These SMEs also need to achieve a more comprehensive understanding of the relationship between changing variables in their external environment and their internal operations. This appears to be of vital importance because currently UK South West SMEs' assessment of how crucial variables may change their position on the competitive continuum does not result in a distinctive categorisation of perceived strengths, weaknesses, opportunities and threats. Provided firms can be encouraged to embark on a more rigourous assessment of their competitive position, this may eventually lead to an increased awareness of a wider variety of possible threats and may cause firms to discover new business opportunities arising. Relative to identified threats and opportunities, these SMEs must also achieve a better understanding of their internal capabilities in order to identify areas which need improvement. Subsequently, companies' future business objectives should more clearly reflect their identified position on the competitive continuum and their aim should be to match their internal capabilities against the emerging requirements of the external post-1992 environment.

It is likely that this external and internal analysis of the firm's environment and the subsequent assessment of position on the competitive continuum cannot be undertaken without any external assistance. The limited amount of time, owner/managers are able to devote to planning procedures is probably a limiting factor. Furthermore, the day to day running of the business can cause the owner/manager to loose sight of the wider context of the business' activities particularly as regards changes in the external business environment. Hence, additional support and provision of information (e.g. on new EC regulations, activities of national and international competitors, changes in technology,

changes in market trends, demographics etc.) from external sources may provide such assistance. It is not only important to encourage SME firms to embark on a more comprehensive analysis of their environment, but owner/managers have to be offered assistance on how to conduct such an analysis and should be given necessary advice on variables which need to be considered.

The study established that the most feasible path of survival for Northern European SME firms in the Single European Market environment is likely to be that of utilising a focused differentiation strategy. Simultaneously, companies have to ensure that production processes become more efficient, productivity increased, relations with networks of suppliers and customers are enhanced, and competences of staff at all levels are improved. If one accepts that UK South West SMEs should follow this approach, several areas of managing the strategic planning process within UK South West SME firms need improvement.

The key goal in adopting this strategic approach should be to generate a stronger commitment towards product development and innovation among UK SMEs. The aim would be to create increased added value products through enhanced tangible or perceived differentiation and premium performance compared to national and international competitors (Thompson 1992; Mazur 1993; Chaston 1993). However, a reluctance of getting involved in such activities does seem apparent among UK South West SMEs. This seems to manifest itself, for example, in the slower pace in which firms update product formulations of existing products and in longer intervals between changes in production techniques and machinery. It appears essential that this process is accelerated. Shorter intervals between product updates (or product replacement) linked to the

use of up-to-date technology and production facilities would ensure that premium product performance and a high degree of differentiation is achieved.

The study established, that most UK South West firms only consider minor improvements to existing products when considering NPD activities. A study by Chaston (1993) warns of the imminent dangers of loosing out to competitors which do invest in product development & innovation. Hence, SME firms in the South West need encouragement to increase their investment in product development & innovation activities. The example of the responding German SMEs suggests, that accompanying product development and innovation activities, UK South West SMEs have to improve their level of customer orientation. In the context of the Single Market environment this requires increased market intelligence on product developments of competitors in other European countries. Provided that this new entrepreneurial direction can be implemented, this could put UK South West SMEs into a much stronger position to successfully compete in domestic and international markets.

Such a shift from a low risk/high commercial certainty/high short term return business culture will require a considerable change in attitude among UK South West firms. However, the same can be stated for the UK business financial community. As outlined earlier, UK high street banks are very reluctant to get involved in longer term/higher risk lending projects to SMEs. Statistics on SME failure rates apparently support such an attitude. On the other hand it appears possible to question banks' lending decisions, and the subsequent support and advice given to SME firms (The European Network for SME Research 1993). The provision of appropriate funding over longer term appears essential if SME firms are to

become more involved in product development & innovation projects. It is usually not possible for the small firm to finance such projects exclusively through internal funds when external long term funds are not available.

It is likely that the incentive for such a considerable shift in attitude has to come from national Government through schemes, similar to the one which lead to the formation of the D.T.I. Innovation Advisory Board, an initiative aimed at innovation activities in larger companies (HMSO 1991). One major aim of such a campaign would be to convince the UK banking community that lending procedures to SME firms need a longer time horizon, a crucial issue constantly raised by the UK small business sector (Eglin 1992). This would allow SME firms to embark upon a longer term orientation of seeking to deliver an outstanding level of customer satisfaction through the development of highly differentiated, premium performance products (Chaston 1993).

In return UK South West SMEs would have to provide banks with clearly defined business plans which by comprehensively justifying their business proposals would reassure banks that their investment is secure. For this to occur SME owner/managers need to adopt a more comprehensive strategic planning approach. Mechanisms have to be implemented in SME companies which would allow the owner/manager to delegate more of the day-to-day affairs to senior staff, possibly through creating a second tier of managerial staff in companies (Chaston 1993). Within this context, it may be suggested that raising staff competences internally through appropriate training schemes could develop the type of senior staff to which the owner/manager can delegate tasks; thereby avoiding the necessity of employing additional staff to undertake this role (McDonald 1992).

Moreover, it should be iterated that appropriate external support services could assist in providing assistance in managing this new strategic approach and new product development orientation because many small firms have often no internal facilities to undertake such activities (Dodgson and Rothwell 1991). It can be suggested that such external assistance could come, inter alia, from Universities within the region. This could prove particularly valuable when different faculties within such institutions can provide expertise in various relevant areas (e.g. market research, legal issues, technological and scientific issues etc.) However, earlier research showed that many UK South West SMEs believe they can manage their businesses effectively without external support services (Chaston 1989). Hence UK South West SME owner/managers have to be convinced that cooperation with these institutions can provide valuable assistance. It can be suggested that longer term lending decisions of the finance community might be based on whether SMEs actively seek such external technical assistance this as could significantly reduce entrepreneurial risks, making commercial success more likely.

Additionally to seeking external expertise from academic institutions or other business support organisations, it may be suggested that cooperation between SMEs, both on a national and international scale, could prove beneficial to small UK firms seeking to enhance their competitive position (Brickau, et al 1994). Responding German SMEs already appear to attach greater importance to seeking cooperation with other companies. The benefits which may be derived from such alliances could take different forms. At the simplest level, it could mean SMEs sharing market information to enhance awareness of market trends. Small firms could also form purchasing syndicates to obtain cheaper raw materials from suppliers. In subsequent stages, firms could embark on

joint product development & innovation projects, hence sharing the financial burden of these activities. International cooperation might even provide a basis for SMEs to establish export activities through their international partners, reducing the dependence on domestic markets, especially in times of declining domestic demand caused by the current recession (European Network of SME Research 1993). In this context it deserves mention that UK South West exporting firms appear to consider a wider portfolio of crucial variables in their strategic planning and are apparently more aware of threats and opportunities arising from the Single Market environment than their UK non-exporting counterparts. Thus it can be suggested that increased internalisation of small firms may advantageous in the post-1992 environment and owner/managers need to be encouraged by the various SME support services to consider entering new markets outside of the UK.

## 8.5. Contribution to Knowledge and Implications for Future Research

The surveyed literature established that previous SME research and studies appear very fragmented, without serious attempts to achieve a consensus. Hence, contributions to increase understanding of strategic planning procedures in SME firms mainly consist of individual efforts, undertaken in a wide variety of specific areas in the field of SME research (Pearce and Robinson 1984). Other attempts, in contrast, appear strongly generalised and are subsequently of little use, both in terms of application in small firms and as a base for further research. As a result, a well defined research platform upon which understanding of SME planning mechanisms could be based and further developed, seems to be still lacking.

The major aim of this study has been to work towards developing such a basis. It appears reasonable to claim that this has been achieved. The research project provides, for the first time, a comprehensive analysis of which external and internal variables are likely to influence small business' competitiveness in the post-1992 environment and furthermore, how these variables may affect SMEs' position on the competitive continuum. Following from this, it has been possible to determine the most likely path of survival for Northern European SME companies in the Single Market environment. The research project identified focused differentiation accompanied by measures to increase efficiency and productivity, and establishing closer links with both suppliers and customers as the cornerstones of SMEs' strategic approach for the Single Market environment. Subsequently, gaps in the strategic response of UK South West SMEs could be established. Finally, a strategic response

framework has been developed which is proposed as a feasible tool for SME owner/managers intending to become more engaged in devising formal business plans to enhance their firms' post-1992 competitive position.

However, it would be wrong to suggest that these achievements are the ultimate end for improving UK South West SMEs' strategic response to the challenges of the Single European Market. Rather the findings of the study and subsequent recommendations to UK SMEs have to be seen as a spring board for further research into new areas identified in the study. In that sense it appears reasonable to suggest that this study has provided a solid foundation for fruitful, future research which will eventually lead to a comprehensive understanding of the mechanisms with which SMEs' performance can be successfully enhanced in the future. It is interesting to see that new attempts in SME research are apparently moving into a similar direction (e.g. European Network of SME research 1993). However, it has to be pointed out that these attempts still appear to be at a less advanced stage and, moreover, seem comparatively less comprehensive. It may be claimed that this further underlines the positive contribution that this study has achieved.

Several areas and directions for future research can be outlined in this section. These can be considered important extensions to the findings of this study and as such may help to further increase understanding of important mechanisms in SME planning theory. The list of recommendations for future research focuses on those areas which are considered most important and hence should be seen as selective rather than comprehensive.

A natural first area of further research should attempt to identify the scope of the conclusions drawn; i.e. it has to be determined whether problem areas identified in the strategic response of UK South West SMEs are only applicable to firms in the food & drink sector or, indeed, are similar across other industry sectors. This could be achieved by surveying UK South West and German SME firms in other industry sectors, using similar types of questionnaires as the ones used in this study. In fact, it could be suggested that adjusting the profile questions of all three survey forms appropriately, could prove sufficient for that purpose.

In the same context, it would be of interest whether findings reflect a scenario, unique to SMEs in the UK South West region. It may be possible that findings of the study reflect a scenario which is geographically more widespread and thus applicable to food & drink SME firms across the whole of the United Kingdom. This could be achieved by obtaining appropriate samples from food & drink manufacturing SME firms in other regions of the UK. Using the same survey forms would provide data for meaningful comparisons between responses of SMEs in other regions in the UK and those obtained from UK South West firms.

The study suggests that the responding German SMEs appear to be in a more advantageous competitive position to successfully overcome possible threats and exploit opportunities arising from the post-1992 environment when compared to many of their UK South West counterparts. Hence, it would be of interest to identify those UK South West SME firms which appear to be commercially more successful and establish whether their strategic approach bears similarities with the strategic response identified among the responding German SMEs. This could serve to add further

weight to the strategic approach identified most appropriate for the Single Market environment.

The study also suggests that many UK South West exporting firms appear to be more aware of threats and opportunities in the Single Market environment and seem to have a greater understanding of the likely effects to their competitive position, compared to their UK non-exporting counterparts. This raises the question whether increased internalisation of the SME firm might influence its strategic response to the Single Market. Hence, an area of further research could focus on this relationship and investigate the strategic behaviour and performance of exporting firms versus non-exporting firms and attempt to validate the apparent positive correlation between export-activities and SME performance in the post-1992 market environment. As a result this may provide further impulses for encouraging UK South West SMEs to get more involved in cross-border activities.

The research project re-emphasises demands by earlier writers (Thompson 1992, Chaston 1993) that UK SMEs have to be encouraged to place more emphasis on new product development, increasing product differentiation and performance, if long-term competitiveness in the post-1992 market environment is to be achieved. Hence, another crucial area of further investigation would be to establish programs for implementing new product development projects in UK South West firms. This will probably encompass a detailed examination of the SME firm/bank relationship in order to establish possibilities of long term funding of such projects. Simultaneously, the role of external support services for small firms, intending to embark on such projects has to be addressed with particular

view to the apparent discontent of owner/managers with current support services (Chaston 1989).

As outlined before, a substantial shift in attitude towards longer term business orientation is required both for lending procedures of the banking community but also for SME firm owner/managers in their strategic planning outlook. Hence, the final suggestions for further research is also one of the most important. It appears crucial that owner/managers are encouraged to devote more time to planning. A strategic response framework has been proposed which could prove to be a tool to assist owner/managers to formalise longer term strategic plans. It is suggested that the validity of the proposed strategic response framework and its benefits to small business planning is tested. This could be achieved through a longitudinal study whereby two samples of similar types of SME firms are surveyed over a longer period of time. In one of the two groups the strategic response framework is introduced and owner/managers have to be encouraged to utilise this planning tool over the period of the study. The other group continues its business operations without changes or alterations in their planning approach. Over the period of the study the performance of the two groups is monitored. A comparison of companies' performance might eventually provide clues to the general validity and usefulness of the framework and, moreover, might provide impulses for its further improvement.

It should be iterated that the achievements of this study have to be seen in the wider context of having provided a basis for further research into the strategic planning processes in SME firms. As such it should be considered a start point for further investigations into various directions. It is a sincere hope that future research efforts are directed towards those

areas outlined; for the benefit of the small business owner/manager intending to succeed in the challenging times ahead, caused by the increasingly demanding market environment of the 1990s.

## **BIBLIOGRAPHY**

- Adams, H.W. und Angenvoort, B (undated). Erarbeiten von Strategien zum Überleben im Europäischen Binnenmarkt in: Studie EG-Binnenmarkt der Firma Fraser
- Alange, S. Miettinen A. and Scheinberg, S. (1988).What motivates to start their own business. Paper presented at the 1988 Conference of the International Small **Business** Congress, Helsinki, Finland
- Amt für amtliche Veröffentlichungen der europäischen Gemeinschaft (1989),
  Die Gemeinschaft 1992: Ein Markt mit neuen Dimensionen,
  Europaeische Dokumentation, Brüssel, Luxemburg
- Ansoff, H.I. (1984). Implementing Strategic Management. Prentice-Hall International, New York
- Aram, J.D. and Cowen, S.S. (1990). Strategic planning for increased profit in the small business. Long Range Planning, Vol. 23, No. 6, pp 63-70
- Atamer, T. (1991). The Single market: its impact on six industries. Long Range Planning, Vol. 14, No. 6, pp 40-52
- Author anonymous (1988). E.C. policy on small and medium-sized companies. Europe, No. 279, pp 24-26
- Axford, B. Deacon, D. Shaw, B. and Turner, J. (1991). The Single European market and small businesses. European Research Vol. 2, Part. 4

- Baimbridge, M. and Burkitt, B. (1991). The Cecchini Report and the impact of 1992. European Research, Vol. 2, Part. 2, pp 16-19
- Ball, M.A. (1983). Environmental scanning for strategic decision-making in small firms. Unpublished PhD proposal, Sheffield City Polytechnic
- Baldwin, R. (1989). The growth effects of 1992. Economic Policy, No. 9 pp 248-281
- Bamberger, I. (1982). Portfolio analysis for the small firm. Long Range Planning, Vol. 15, No. 6, pp 49-57
- Bamberger, I. (1983). Value systems, strategies and the performance of small and medium-sized firms. European Small Business Journal, Vol.1, No.4, pp 25-39
- Bamberger, I. (1989). Developing competitive advantage in small and mediumsize firms. Long Range Planning, Vol. 22, No. 5, pp 80-88
- Bamberger, I. et al [The STRATOS Group] (1990). Strategic Orientation of Small European Businesses. Avebury/Gower, Aldershot
- Bannock, G. (1976). The Smaller Business in Britain and Germany. Wilton House.

  For the Anglo-German Foundation, London
- Bannock, G. Shipman, A. Waltkins, G. and Glover, J. (1992). Choking the spirit of enterprise. International Management, Vol. 47, No. 3, pp 30-39
- Barnes, I. and Preston, J., (1988). The European Community. Longman Publishers, London & New York

- Barnes, L.B. and Hershorn, S.A. (1976). Transferring power in the family business. Harvard Business Review, July/August
- Barreyre, P. (1977). The management of innovation in small and medium-sized industries?. International Studies of Management and Organization Vol. 7, No. 2, pp 76-98
- Berger, R. (ed.) (1991). Handbuch Europa '92. Econ Verlag, Duesseldorf, Wien, New York
- Berney, K. (1990). EC affairs: small players on the big stage. International Management, Vol. 45, No. 3, pp 40-42
- Bieber, R. Dehousse, R. Pinder, J. and Weiler, J.H.H. (ed.) (1988). 1992: One European Market? A Critical Analysis of the Commissions Internal Market Strategy, Nomos Verlagsgesellschaft, Baden Baden
- Binks, M. Ennew, C.and Reed, G. (1990). The Single Market: finance for smalland medium-sized enterprises. International Journal of Bank Marketing, Vol. 8, No. 3, pp 24-28
- Birch, D. (1979). The Job Generation Process. MIT Programme on Neighbourhood and Regional Change, Cambridge, Massachusetts
- Birley, S. (1982). Corporate strategy and the small firm. Journal of General Management, Vol. 8, No. 2, pp 82-86
- Birley, S. (1989). SMEs is there a European dimension?. European Business Journal, March, pp 19-25

- Blacksell, M. (1981). Post-war Europe: A Political Geography. 2nd edition, Hutchinson, London
- Blake, R.R. and Mouton, J.S. (1982). The One-Minute Manager. Morrow,

  New York
- Bleicher, K. (1991). Unternehmensphilosophien im internationalen Wettbewerb Die europäische Chance: Suche nach einem eigenständigen Weg der Unternehmensführung. Führung und Organisation, Vol. 59, No. 1, pp 5-14
- Blythe, J.W.D. (1992). New product development in the Single Market. European Business and Economic Development, Vol. 1, No. 1, pp 1-5
- Bolwijn, P.T. and Kumpe, T. (1990). Manufacturing in the 1990s- productivity, flexibility and innovation. Long Range Planning, Vol. 23, No. 4, pp 44-57
- Borchard. K.-D. (1989).European Unification. 3rd ed., Office for Official Publications of the European Communities (publ. 1990), Brussels, Luxembourg
- Boseman, G. Phatak, A. and Schellenberger, R.E. (1986). Strategic Management, John Willey & Sons, USA, Canada
- Bourgeois, L.J. (1980). Strategy and the environment: a conceptual integration.

  Academy of Management Review, January, pp 25-39
- Bracker, J.S. (1982). Planning and financial performance among small entrepreneurial firms: An industry study. Doctoral dissertation, unpublished, Georgia State University

- Brickau, R.A. and Trinder, D. (1991). The German success myth or reality?.

  Paper presented at European Small Business Conference, UK,

  Nottingham, April
- Brickau, R.A. Chaston, I. and Mangles, T. (1994). Factors influencing the performance of SME food processing companies within the Single European Market. International Business Review, Vol.3, No.2
- Bruce, R. (1978). The Entrepreneurs: Strategies, Motivations, Successes and Failures, Bedford Libertarian Books
- Brytting, T. (1990). Spontaneity and systematic planning in small firms a grounded theory approach. International Small Business Journal, Vol.9, No.1, pp 45-63
- Buchele, R.B (1965). Business Policy In Growing Firms. Chandler, San Francisco
- Buigues, P and Jaquemin, A. (1989). Strategies of firms and structural environments in the large internal market. Journal of Common Market Studies, Vol. 28, September, pp 53-67
- Burns, P. and Dewhurst, J. (ed.) (1986). Small Business in Europe. Macmillan, Basingstoke, London
- Calingaert, M. (1988). The 1992 Challenge from Europe: Development of the European Community's Internal Market. Washington, DC: The National Planning Association
- Carrington, L. (1989). Ready, willing and able. Industrial Society, March, pp 20-21

- Cecchini, P. (1988). The European Challenge 1992. Wildwood House, Aldershot
- Chambers, E.J. and Golde, R.L. (1963). A pilot study of successful and unsuccessful small business enterprises within Montana. Bureau of Business and Economic Research, Montana State University, Missoula, Montana
- Channon, J.I. (1968). Business Strategy and Policy. Harcourt Brace Javonovich,

  New York
- Charsley, W. (1989). A guide to business survival in the 1990s. Management Services, Vol. 33, No. 3, pp 12-14
- Chartered Institute of Marketing (1992). Towards 2000. Draft for consideration by Council and management, distributed to committee members of all local branches
- Chaston, I. (1989). The Future of SME Support Services in the South West, Plymouth, Devon and Cornwall Development Company
- Chaston, I. (1992). Customer Focussed Marketing. McGraw-Hill, Maidenhead
- Chaston, I. (1993). Product improvement / new product development in South
  West SME sector firms. Proceedings Marketing Education Group
  Conference, Loughborough University, July, pp 127-135
- Chaston, I. (1993). UK/US collaborative exploitation of the European Market. Journal of General Management, Vol. 18, No. 4, pp 80-92
- Chiappori, P.-A. (1989). Discussion. (included in Baldwin, R.'s article in Economic Policy, No. 9, pp 248-281

- Christensen, C.R. (1953). Management succession in small and growing firms.

  Division of research, Graduate School of Business, Harvard

  University, Boston
- Christensen, C.R. and Scott, B.R. (1964). Review of course activities.

  Lausanne, MEDE, as quoted in Churchill and Lewis (1983) op. cit.
- Churchill, N.C. and Lewis, V.L. (1983). The five stages of small business growth.

  Harvard Business Review, May-June, pp 31-46
- Clifton, P. Nguyen, H. and Nutt, S. (1992). Market Research: Using Forecasting in Business. Butterworth Heinemann, Oxford, UK
- Cooper, A.C. (1979). Strategic Management: New Ventures and Small Businesses. in: Schendel, D.E. and Hofer, C.W. Strategic Management: A New View of Business Policy and Planning; Little, Brown & Company, Boston (this paper was adapted in: Long Range Planning, Vol. 14, No. 5, pp 39-45, 1981)
- Corsten, H. and Lang, O. (1988). Innovation practice in small and medium-sized enterprises: an empirical survey of the member states of the European Community. Technovation, Vol. 7, No. 2, pp 143-154
- Crainer, S. (1990). Putting strategy to work. Marketing Business, December, pp 20-21
- Crossick, S. (1990). The Single Market: threat or opportunity for smaller companies. European Trends, No. 2, pp 90-95

- Curbelo, J.L. and Alburquerque, F. (1993). The impact of the Maastricht Treaty on European peripheral regions. European Business and Economic Development, Vol. 1, No. 1, pp 1-7
- Curran, J.V. (1986). Bolton Fifteen Years on: A Review and Analysis of Small Business Research in Britain 1971-1986. For the Small Business Research Trust, September, London
- Daems, H. (1990). The strategic implications of 1992. Long Range Planning, Vol. 23, No. 3, pp 41-48
- Dallmer in "Fortress Europe", Target Marketing, Vol. 12, No. 6, pp 12-14 as quoted by Guido, G. (1991) op. cit.
- D'Amboise, G. and Muldowney, M. (1988). Management theory for small business: attempts and requirements. Academy of Management Review, Vol. 13, No. 2, pp 226-240
- D'Amboise, G. (1986). A survey of strategic planning models for small business.

  Journal of Small Business & Entrepreneurship, Vol. 3, No. 3, pp 6-17
- David, F.R. (1989). Concepts in Strategic Management. Merwill, Columbus
- Davis, E (1991), quoted in Management Today by Hashi Seydean, Jan 1991, p.12
- DIHT Deutscher Industrie u. Handelstag (1989), Wegweiser zum Binnenmarkt, DIHT, Bonn, Köln
- DIHT Deutscher Industrie u. Handelstag (1992). Wettbewerbsfähig für Europa?Deutsche Unternehmen vor Eintritt in den EG-Binnenmarkt,
  Ergebnisse einer Unternehmensbefragung, Bonn

- Dillman, D.A. Dillman, J.J. and Makela, C.J. (1984). The importance of adhering to details of the total design method (TDM) for mail surveys. In: Cragg, P.B. (1987). Implementing Dillman's TDM approach in the design and use of a mail questionnaire. Graduate Management Research, Vol.3, No.4, pp 47-56
- Dodgson, M. and Rothwell, R. (1988). Small firm policy in the U.K. Technovation Vol. 7, No. 3, pp 231-247
- Dodgson, M. and Rothwell, R. (1991). Technology strategies in small firms.

  Journal of General Management, Vol. 17, No. 1, pp 45-55
- Dodgson, M. and Rothwell, R. (1991). External linkages and innovation in small and medium-sized enterprises. R & D Management, Vol. 21, No. 2, pp 125-137
- Dudley, J. (1989). 1992 Strategies for the Single Market. Kogan Page, London
- Eglin, R. (1992). Faith in small wonders. Management Today, December, pp 30-33
- El-Namaki, M.S.S. (1990). Small business the myths and the reality. Long Range Planning, Vol. 23, No. 4, pp 78-87
- Erdos, P.L. (1974). Data Collection Methods: Mail Surveys. In: Ferber, R. (ed.). Handbook of Market Research. Mc Graw-Hill, USA
- European Network for SME Research (1993). The European Observatory for SMEs.

  First Annual Report, Executive Summary, May

- Fahy, J. (1993). An analysis of competition in the new Europe. European Journal of Marketing, Vol. 27, No. 5, pp 42-53
- Farrands, C. (1989). Strategies of food processing companies: innovation and the Single Market. European Trends, No. 4, pp 44-51
- Fayol, H. (1948). Industrial and General Management. Pitman, London
- Forsgren, R.A. (1989). Increasing mail survey response rates: methods for small business researchers. Journal of Small Business Management, October, pp 61-66
- Foster, J.J. (1992). Starting SPSS/PC+. Sigma Press, Wilmslow, UK
- Gasse, Y. (1979). Management techniques and practice in small manufacturing firms. Proceedings of the International Council on Small Business, Quebec City, Canada
- Gibb, A. (1990). In pursuit of frameworks for the development of growth models of the small business. International Small Business Journal, Vol. 9, No. 1, pp 15-31
- Giles, W.D. (1991). Making strategy work. Long Range Planning, Vol. 24, No. 5, pp. 75-91
- Gill, J. (1985). Factors Affecting The Survival And Growth Of The Smaller Company. Gower Ltd, Hants

- Gilmore, F. (1971). Formulating strategy in smaller companies. Harvard Business Review, May-June, pp 71-81
- Gofton, K. Kreitzman, L. van Mesdag, M. and Lester, T. (1989). Preparing for 1992.

  Marketing, May, pp 1-10
- Gordon-Hall, A. (1990). Does your company really need a mission statement?.

  Industrial Marketing Digest, Vol. 15, No. 1, pp 105-112
- Gordon, W. and Langmaid, R. (1988). Qualitative Market Research, Gower Ltd, Hants.
- Greiner, L.E. (1972). Evolution and revolution as organizations grow. Harvard Business Review, July-August, pp 37-46
- Gripaios, P. (1989, 1990, 1991). The South West Economy. Annually published report, Plymouth Business School, Plymouth
- Grundy, T. and King, D. (1992). Using strategic planning to drive strategic change. Long Range Planning, Vol. 25, No. 1, pp 100-108
- Guido, G. (1991). Implementing a pan European marketing strategy.

  Long Range Planning, Vol. 24, No. 5, pp 23-33
- Hadler, W. (1988). In der EG wächst die Bereitschaft zur Harmonisierung der Steuern. Die Welt, April, Nr. 91, page 11

- Hahn, D. (1989). Strategische Unternehmensführung Stand und Entwicklungstendenzen unter besonderer Berücksichtigung US-amerikanischer Konzepte. In Seidel, E. und Wagner, D.(ed) Organisation Evolutionäre Interdependenzen von Kultur und Struktur der Unternehmung, Wiesbaden
- Hahn, D. (1991). Strategic management tasks and challenges in the 1990s.

  Long Range Planning, Vol. 24, No. 1, pp. 26-39
- Hamel, G. (1988). 1992 in a global context. Multinational Business, No. 3, pp 1-8
- Hancock, C. (1991). Directorate-General XXIII: a voice for small business?.

  Director, Vol. 45, No. 4, pp 114-115
- Harrison, E.F. (1989). The concept of the strategic gap. Journal of General Management, Vol. 15, No. 2, pp 57-72
- Harvey-Jones, J. (1991). Heroes, captains, lookouts and managing growth.

  Accountancy, Vol. 107, No. 1170, pp 96-97
- Hax, A.C. and Majluf, N.S. (1984) Strategic Management An Integrative Perspective, Englewood Cliffs
- Henzler, H.A. (1986). Vision und Führung. In Henzler, H.A. (ed.) Handbuch Strategische Führung, Wiesbaden
- Hertz, L. (1982). In Search of a Small Business Definition. University Press of North America

- Higgins, J.M. (1991). The Management Challenge. Macmillan, New York, Toronto
- Higgins, J.M. and Santalainen, T. (1989). Strategies for Europe. Business Horizons, July-August, pp 54-58
- Hinterhuber, H.H. (1980). Strategische Unternehmensfuehrung. de Gruyter, Berlin/New York
- Hörnell, E. (1992). Improving Productivity for Competitive Advantage. Pitmann Publishing, London
- Hofer, C.W. (1975). Towards a contingency theory of business strategy. Academy of Management Journal, Vol. 18, No. 4, pp 31-40
- Hofer, C.W. and Schendel, D.E. (1978). Strategy Formulation: Analytical Concepts. West Publishing Co, St. Paul, Minn.
- Hotze, H. (1992). Noch hohe Hürden beim Schlußspurt zum EG-Binnenmarkt.

  Welt am Sonntag, January 19th, pp 35-36
- Hotze, H. (1992). Die Möglichkeit einer Flaute fehlt in der Prognose Das Cecchini-Gutachten verhieß der EG voreilig einen Wachstumsschub durch den Binnenmarkt. Welt am Sonntag, October 11th, page 43
- H.M.S.O. (1991). Innovation Plans Handbook: getting the message across.

  H.M.S.O. on behalf of D.T.I.
- Hunsicker, J.Q. (1989). Strategies for European survival. The McKinsey Quarterly, Summer, pp 37-47

- Hutchinson, M.A. and Brickau, R.A. (1992). How to avoid being ostracised from Europe, unpublished paper submitted for the British Institute of Management competition: How can UK management gain advantage from the European Market?
- Iacocca, L. (1984). An Autobiography. Bantam, New York
- Ifo-Institut für Wirtschaftsforschung (1990). An Empirical
  Assessment of Factors Shaping Regional Competitiveness in
  Problem Regions. Office for Official Publications of the EC, Brussels,
  Luxemburg
- Jenkins, H. (1992). Linking training with the businessplan. Documentation of Seminar-Workshop at BIM-AGM, May 1992
- Johnson, G. (1992). Managing strategic change strategy, culture, and action.

  Long Range Planning, Vol. 25, No. 1, pp 28-36
- Joyce, P.; Woods, A.; McNulty, T. (1990). Barriers to change in small businesses.

  International Small Business Journal, Vol.8, No.4, pp 49-58
- Kamps, H. (1988). Budgeting process in small companies. Annales de Science Appliquees, Vol. 4, No. 2, pp.143-148
- Kast, F.E. and Rosenzweig, J.E. (1974) Organisation and Management,
  McGraw-Hill, New York

- Kilzer, J.R. and Glausser, G.G. (1984). Closing the small business management gap. Management Accounting, Vol. 65, No. 11, pp 57-61
- Kirby, D.A. (1990). Management education and small business development: an exploratory study of small firms in the UK. Journal of Small Business Management, October, pp 78-87
- Kirsch, W and Trux, W (1983). Vom Marketing zum Strategischen Management.

  In: Kirsch, W. and Roventa, P. (eds.) Bausteine eines Strategischen

  Managements, de Gruyter, Berlin/New York
- Kotler, P. (1991/92). Silent satisfaction. Recorded interview with Philip Kotler, Marketing Business, December/January, pp 24-27
- Krueger, W. (1988). Die Erklärung von Unternehmenserfolg Theoretischer Ansatz und Empirische Ergebnisse. DBW, Vol. 48, p.27
- Lamoriello, F. (1988). Completing the Internal Market by 1992.

  Business America, Vol. 109, pp 4-6
- Langer, G. (1987). Zeitgemässe Unternehmensführung im Gastgewerbe. Universität Innsbruck
- Langer, G. (1988). Strategische Führung von Kleinunternehmen im Gastgewerbe.

  Internationales Gewerbearchiv, Vol. 6, No. 2, pp 107-116
- LeBreton, P. (1963). A Guide for Proper Management Planning for Small Business

  Division of Research, College of Business Administration, Louisiana

  State University, Baton Rouge

- Lippitt, G.L. and Schmidt, W.H. (1967). Crisis in developing organizations.

  Harvard Business Review, November/December, pp 102-112
- Little, A.D. (undated). A system for managing diversity. unpublished paper, A.D. Little Inc.
- Lynch, R. (1990). European Business Strategies An Analysis of Europe's Top Companies. Kogan Page, London
- Mahar, J.R. and Coddington, D.C. (1966). Managing The Small Firm. in: Broom, H.N. and Langenecker, J.G. (ed.) Small Business Management. South Western, Cinncinati
- Malhotra, N.K. (1993). Marketing Research An Applied Orientation. Prentice-Hall, New Jersey
- Manchester Business School (1993). Payment Practices. Legislation and their effect on SMEs: A Comparative Study. Report prepared for National Westminster Bank, Small Business Services, London
- Mazur, L. (1993). Brands across borders. Marketing Business, October, pp 37-39
- Mayer, K. and Goldstein, S. (1961). The first two years: The problem of small firm growth and survival. Small Business Administration, Washington, D.C.
- McDonald, M. (1992). Strategic Marketing Planning. Kogan Page, London
- McGuire, J.W. (1963). Factors Affecting the Growth of Manufacturing Firms.

  Bureau of Business Research, University of Washington

- Meiklejohn I. (1989). Single Market, single system . Management Today, March, pp 153-154
- Meissner, H.G. in: Berg, H.; Meissner, H.G.; Schünnemann, W.B. (1990). Märkte in Europa, Strategien für das Marketing. Poeschel Verlag, Stuttgart
- Mendelssohn, J. (1990). Small firms and the mission statement. Accountancy Vol. 107, No. 1169, pp 96-97
- Mering, P. (1992). "Eurogateway" stößt das Tor zu benachbarten Märkten auf. Ruhr-Nachrichten, 06.05.1992, p 5
- Mitchell, D. (1989). 1992: The implications for management. Long Range Planning Vol. 22, No. 1, pp 32-40
- Multinational Business Journal (anonymous) (1989). Multinational management strategies. No. 2, pp 38-44
- Nagel, A. (1981). Strategy formulation for the smaller firm a practical approach. Long Range Planning, Vol. 14, No. 4, pp 115-120
- Norusis, M.J. (1990). SPSS/PC+ Introductory Statistics Guide. SPSS Inc., Chigago
- Norusis, M.J. (1990). SPSS/PC+ Advanced Statistics 4.0. SPSS Inc, Chigago OECD
- OECD (1985). Employment in Small and Large Firms. Employment Review, September 1985.
- Ohmae, K. (1985). Triad Power, The Free Press, New York, London

- Parasuraman, A. (1991). Marketing Research 2nd ed., Addison-Wesley, Reading Massachusetts
- Peters, T.J. and Waterman, R.H. (1982). In Search of Excellence:

  Lessons from America's Best-run Companies. Harper & Row, New

  York
- Peters, T. (1986); quoted in: Pascale, R.T. and Athos, A.G. (1986). The Art of Japanese Management. Sidgwick & Jackson, London
- Peters, T. (1991). Die mächtigen Zwerge. Wirtschaftswoche, No. 49, p 70
- Perry, C. (1986). Growth strategies for small firms: principles and case studies.

  International Small Business Journal, Vol. 5, No. 2, pp 17-25
- Pleitner, H.J. (1989). Strategic behavior in small and medium-sized firms: preliminary considerations. Journal of Small Business Management, Vol. 27, No. 4, pp 70-75
- Porter, M. E. (1990). Competitive Advantage of Nations. The Free Press, New York, London
- Porter, M.E. (1980). Competitive Strategy Techniques for Analyzing Industries and Competitors. The Free Press, New York, London
- Porter, M.E. (1985). Competitive Advantage Creating and Sustaining Superior Performance, The Free Press, New York, London

- Riley, S. and Palmer, J. (1976). Of Attitudes and Latitudes: A Repertory Grid Study of Perceptions of Seaside Resorts. In: Slater, P. (ed.). The Measurement of Intrapersonal Space by Grid Techniques. Vol. 1: The Exploration of Intrapersonal Space. Wiley and Sons
- Robinson, R.B. (1980). An empirical investigation of the impact of SBDC-strategic planning consultation upon the effectiveness of small business in Georgia. Doctoral Dissertation, University of Georgia
- Robinson, R.B. (1982). The importance of outsiders in small firm strategic planning. Academy of Management Journal, Vol. 4, No. 3, pp 80-93
- Robinson, R.B. and Pearce, J.A. (1983). Impact of formalized strategic planning on financial performance in small organizations. Strategic Management Journal, Vol. 4, No. 3, pp 128-137
- Robinson, R.B. Pearce II, J.A. Vozikis, G.S. and Mescon, T.S. (1984). The relationship between stage of development and small firm planning and performance. Journal of Small Business Management, April, pp 45-52
- Rostow, W.W. (1960). The Stages of Economic Growth. University Press Cambridge
- Sadler, P. (1989). Short-term traps on the road to 1992. Director, Vol. 42, No. 10, pp 107-113
- Sallnow, J. (1991). The Uniting States of Europe. Geographical Magazine, February, pp 40-43

- Salter, M.S. (1970). Stages of corporate development. Journal of Business Policy, Vol 1, No 1, pp 23-37
- Scholes, K. (1991). The way to manage strategic change. Accountancy, Vol. 107 No. 1170, pp 96-97
- Scott, B.R. (1971). Stages of corporate development Part 1. Harvard Business School, unpublished paper
- Scott, M. and Bruce, R. (1987). Five stages of growth in small business. Long Range Planning, Vol. 20, No. 3, pp 45-52
- Shaw, V. and Doyle, P. (1991). Marketing startegies and organisational characteristics of British and German companies: preliminary findings for the machine tool industry. Proceedings of the Marketing Education Group Conference, Cardiff, July, pp 1011-1032
- Shrader, C.B. Mulford, C.L. and Blackburn, V.L. (1989). Strategic and operational planning, uncertainty, and performance in small firms.

  Journal of Small Business Management, Vol. 27, No. 4, pp 45-60
- Simon, H. (1992). Lessons from Germany's midsize giants. Harvard Business Review, March/April, pp 115-123
- Sloan, A.P. (1963). My years with General Motors. Doubleday, Garden City, New York

- Steers, R.; Ungson, G.; Mowday, R.T. (1985). Managing Effective Organisations.

  Kent Publ. Ltd, Boston, Massachusetts
- Steiner, G. (1967). Approaches to long-range planning for small business.

  California Management Review. Vol. 10, No. 1, pp 3-16
- Steinmetz, L.L. (1969). Small business growth when they occur and how to survive them. Business Horizons, February 1969, p 29-33
- Stewart, R. (1991). Managing Today & Tommorrow. Macmillan, London
- Szydlowski, J. (1988). A plan for Europe. Director, Vol. 42, No. 4, pp 127-130
- Taylor, B. (1986). Corporate planning for the 1990s the new frontiers. Long Range Planning, Vol. 19, No. 6, page.13
- Taylor, B. Gilinsky, A. Hilmi, A. Hahn, D. and Grab, U. (1990). Strategy and leadership in growth companies. Long Range Planning, Vol. 23, No. 3, pp 66-75
- Taylor, T.C. (1978). Slipping into the spaces. Sales & Marketing Management, Vol. 121, No. 7, pp 37-39
- Thatcher, M. and Pitman, J. (1988). United Kingdom: A once-in-a-lifetime opportunity; one step ahead of the opposition. Euromoney 1992 Supplement, September, pp 54-75
- The Bolton Report (1971). Report of the Committee of Enquiry on Small Firms.

  Cmnd 4811

- The Commission of the European Communities (1988). Europe 1992 Developing an Active Company Approach to th European Market. Whurr Publishing Ltd, London
- The Grocer (1987). The success of German food is more than just pie in the sky.

  Promotional supplement prepared by CMA and incorporated in

  January edition of The Grocer, publ. by William Reed, London
- The Wilson Report (1979). Interim Report of Small Firms. Cmnd 7503
- Thompson, K. (1992). British competitive advantage in the new Europe. European Business and Economic Development, Vol. 1, No. 1, pp 6-10
- Thurley, K. and Wirdenius, H, (1989). Towards European Management.

  Pitman, London
- Thurston, P.H. (1983). Should smaller companies make formal plans?. Harvard Business Review, Vol. 83, No. 5, pp 162-184
- Tiemann, S. (1991). Europa 1992 an der Schwelle zum Binnenmarkt. Der Steuerzahler, December, pp 187-188
- Tietz, B. (1989). Die Dynamik des Euromarktes. Poller-Verlag, Stuttgart
- Tietz, B. (1989). Euro-Marketing: Unternehmensstrategien fuer den Binnenmarkt. Poller-Verlag, Stuttgart
- Tigner, B. (1988). Taking care of the little guy. International Management, Vol. 43, No. 9, pp 35-39
- Tigner, B. (1990). Target 1992 Belgium: time of reckoning. International Management, Vol. 45, No. 3, pp 56-60

- Todd, A. and Taylor, B. (1993). The baby sharks: strategies of Britain's supergrowth companies. Long Range Planning, Vol.26, No.2, pp 69-77
- Toepfer, A. (1991). Euro-Audit: Erfolgreiche Vorbereitung mittelständischer Unternehmen auf den Europäischen Binnenmarkt. Zeitschrift Führung und Organisation, Vol. 59, No. 1, pp 28-34
- Trow, D.B. (1961). Executive succession in small companies. Administrative Science Quarterly, Vol. 25, pp 12-15
- Tugrul, A. (1991). The Single Market: its impact on six industries.

  Long Range Planning, Vol. 24, No. 6, pp 40-52
- Tull, D.S. and Hawkins, D.J. (1990). Marketing Research: Measurement and Method. Macmillan, New York, 5th ed.
- Van Hoorn, Th. (1979). Strategic planning in small and medium-sized companies. Long Range Panning, Vol. 12, April, pp 84-91
- Vandermerve, S. and Vandermerwe, A. (1991). Making strategic change happen. European Management Journal, Vol. 9, No. 2, pp 174-181
- Vandermerwe, S. (1989). Strategies for a pan European market. Long Range Planning, Vol. 22, No.3, pp 45 53
- Vesper, K.H. (1979). Commentary. in: Schendel, D.E. and Hofer, C.W. (1979).

  Strategic Management: A New View of Business Policy and Planning.

  Little, Brown & Company, Boston
- Volk, H. (undated) EG-Fahrplan für Mittelständler, Report by Dr. Höfner & Partner Consulting, München, pp 7-8,

- Vozikis, G.S. and Glueck, W.F. (1980). Small business problems and stages of development, Academy of Management Proceedings, as quoted in Robinson, Pearce, et. al. (1984) op. cit., p 45
- Waalewijn, P. and Segaar, P. (1993). Strategic Management: the key to profitability in small companies. Long Range Planning, Vol.26, No.2, pp 24-30
- Webb, J.R. (1992). Understanding & Designing Marketing Research. Harcourt Brace Jovanovich, London, San Diego
- Weber, H.-O. (1992). Vom Inlandsmarkt zum Binnenmarkt: Gefahren erkannt, Gefahren gebannt?. EG Magazin, No. 6, pp 10-13
- Webster, F. (1976). A model for new venture interaction. Academy of Management Review, Vol. 1, No. 1, pp 26-37
- Wever, K.S. and Allen C.S. (1992). Is Germany a model for managers?. Harvard Business Review, September-October, pp 36-43
- Wheelwright, S.C. (1971). Strategic planning in the small business. Business Horizons, Vol. 14, No. 4, pp 51-58
- Wilson, R.M.S.; Gillingan, C.; Pearson, D.J. (1992). Strategic Marketing Management-Planning, Implementation and Control. Butterworth-Heinemann, Oxford
- Witte, H. (1991). Mittelstand: Auf die Strategie kommt es an. EG Magazin, No.7/8, pp 38-39
- Woodruff, A.M. and Alexander, T.G. (1958). Success and Failure in the Small Business. University of Pittsburg Press, Pittsburg

Wright, R.V.L. (undated). Strategy centres: a contemporary managing system. unpublished paper, A.D. Little Inc.

#### Appendix 1

#### **Survey Forms**

Questionnaire 1 (UK)/Covering Letter

Questionnaire 1 (Germany)/Covering Letter

Questionnaire 2 (UK)/Covering Letter

Questionnaire 2 (Germany)/Covering Letter

Questionnaire 3 (UK)/Covering Letter

Questionnaire 3 (Germany)/Covering Letter



#### POLYTECHNIC SOUTH WEST

Plymouth Business School

Drake Circus, Plymouth, Devon PL4 8AA, United Kingdom Telephone: 0752 232811 Fax: 0752 232853 Telex: 45423 PSWAS G

Dear

The Plymouth Business School, in collaboration with Devon & Cornwall Development Company, Food from Britain, and Unicorn is researching the implications of the Single European Market for the UK South West food and drinks industry.

The purpose of the enclosed survey is to gain your views on the influence of certain national, regional and company-specific factors on the future performance of South West food and drinks firms.

It is hoped that the research will ultimately be of benefit to those firms seeking to more effectively respond to the post-1992 market environment.

The survey should not take more than 5 - 10 minutes to tick the relevant boxes.

Please return the completed questionnaire in the enclosed stamped, addressed envelope.

All information will be treated in the strictest confidence and no data will be published which can be identified as a response from a specific organisation.

Should you be interested in further cooperation on this survey or the final results, please fill in the details on the last page. This is, of course, optional!

If you need further information on either the research project or before you are willing to complete the survey, please do not hesitate to contact me any time on 0752/232857 or 0752/232807 (Nicky May, secretary).

Yours sincerely,

Ralf A. Brickau

# Single European Market Survey on UK South West Food Industry

compiled by Ralf A. Brickau

B.A.(hons), Dipl.- Betriebswirt

Polytechnic South West Plymouth Business School

Tel.: 0752/232857

in cooperation with the following institutions:

**Devon & Cornwall Development Company (DCDC)** 

(Sue Blacker - Tel.: 0208/873485)

**Food from Britain** 

(Bud Wendover - Tel.: 0392/881493)

**Union of Cornish Producers (Unicorn)** 

(Mike Horrell - Tel.: 0579/62244)

#### \*Characteristics of your establishment\*

(plea a si a h a si a si	Is your business at the address above  (please_tick one) a single site business							
		manufac- turing	assembly (packing,)	distribution	research & development	service activities (eg.central office function or trade agency)		
meat/	eat		( <u> </u>	<u>()</u>	[]			
fish/ process. fis	h		Ш	<u></u>				
poultry/ process. po	ultry	[_]				[_]		
confectione	ry		Ш					
fruit/ process. fru	it					[_]		
vegetables/ process. veg	get.					[_]		
beverages								
bakery prod	ucts							
dairy produc	ets							
others (spec	ify)	<u></u>		∟] - A4 -				

3)	How many emplo	yees are currently emp	loyed a	t your establishment ?:
		1 - 4	[_]	
		5 - 24	[]	
		25 - 49		
		50 - 99	[]	
		100 - 199	[_]	
		200+ (specify	·)[]	[] employees
4)	For how many yea	ırs has vour establishm	ent evi	sted at the location above ?:
Í	(please, tick one)	IIII your combining	CIII CAI	seed at the location above
		1 year		
		2 - 4 years		
		5 - 10 years	[]	
		11 - 19 years	[]	
		20+ years (specify)	[]	[]years

#### \*Characteristics of your business environment\*

5a)	Does your establishment import from other countries	<b>:</b>
	yes	[] (if yes, please go to 5b)

[\_] (if no. please go to 6) no no, but intend to in near future [\_] (please, go to 6)

#### 5b) (please, tick as many as necessary)

5a)

raw material	semi-pro- cessed products	ready made products	machinery/ tools
			-
	[]	[_]	
[_]		[]	
[]			
[_]			
[_]	[_]	[]	
[]		[]	
		Ш	
		material cessed products  []	material cessed made products  [

<sup>\*1 (</sup>EC member states being: UK, Ireland, Germany, France, Denmark, Spain, Portugal, Italy, Greece, Netherlands, Luxembourg, and Belgium)

Does your establishment export to other countries?:							
yes [] ( <u>if yes, please go to 68</u> no [] ( <u>if no, please go to 7</u> ) no, but intend to in near future [] ( <u>please, go to 7</u> )  6b) ( <u>please, tick as many as necessary</u> )							
yes, we export	raw material	semi-pro cessed products	ready - made products				
to:							
other EC members •	[_]						
Europe but no EC members							
Eastern Europe	[_]						
USA/Canada							
South America	[_]						
Asian countries	[_]						
African countries	[_]						
Others (specify)		[_]					

6)

<sup>\*1 (</sup>EC member states being : UK, Ireland, Germany, France, Denmark, Spain, Portugal, Italy, Greece, Netherlands, Luxembourg, and Belgium)

## 7) How important do you rate the following sources of competition to your establishment?:

(please, tick one in each line)

Sources of competition:	not at all important	not very	neither	quite important	very important
companies in South West of England	<u>()</u>		□.		
companies in the UK		[_]		[_]	
companies in the EC 1	[_]				[_]
companies outside EC	<u></u>	[_]			
(if outside specify)					

<sup>\*1 (</sup>EC member states being: UK, Ireland, Germany, France, Denmark, Spain, Portugal, Italy, Greece, Netherlands, Luxembourg, and Belgium)

## 8) How important do you consider the following *national economic factors* for your establishment in the Single European Market environment ?: (please, tick one in each line)

	not at all important	not very	neither	quite important	very important
country's exchange rate		Ш	ப	ப	Ш
Income/ Corporate taxes	<b>Ш</b> .	Ш	Ш	Ш	
Cost of borrowing			<u>[_]</u>	L	
Availability of risk capital	Ш		Ы	Ш	
Economic growth rate				Ш	
Inflation rate	Ш	<u></u>			
Labour costs: - direct (wages/salaries)	Ш	ப	Ш	Ш	Г
- indirect (social security, sick leave etc.)	Ш	ப	Ы		
Labour market regulations (working time, redundancy etc.)	Ы	<u>L</u> )	L		
Industrial policy (eg. R&D, incentives, energy policy)				Ш	
Legal regu- lations (eg. environmental protection, hygiene regulations)	L		Ш		
Governmental administrative procedures (eg.investment procedures)				L	

## 9) How important do you consider the following regional economic factors for your establishment in the Single European Market Environment ?: (please, tick one in each line)

	not at all important	not very	neither	quite important	very important
Proximity of customers		[]	L	Ш	Ц
Proximity of suppliers (eg.raw materials)	(_)	L			L
Proximity of companies of same nature as yours	L				Ш
Market services: (availability)					
- banks,insurers, lawyers etc	Ш	ப	ப		ப
- advertising & consulting agencies	L	L.) .	. <u>[]</u>	ப	ப
- servicing for machinery	[_]	L	<u> </u>	<u></u>	ப
Connection to the traffic network (road-, rail-, air-, water transport)	L	[]		( <u> </u> )	Ш
Energy supply (electricity, gas, water): -Availability, -cost	П				
Communication (telephone, fax)	( <u>_</u> )	L		<u>()</u>	
Waste disposal facilities: -Availability -Costs					
Industrial sites (costs & possibility of expansion)		<u></u> .	Ш	Ш	
Social climate (eg. labour rel- ations, flexibility, trade union activity)		Ш		Ш	

Question 9) to be continued on next page!

#### Question 9) continued

not at all	not very important	neither	quite important	very important
	(_)			Ц
	<u>.</u> .		L	
Ш	Ш	Ш	ட	Ц
	L			Ш
<u> </u>	[_]		(_)	Ш
(L)	L	ப	Ш	Ш
<u></u>		<b>.</b>		Ц
L	L)	L		Ш
<u></u>	[_]			
		Ц		Ц
		LJ		Ц
<u></u>		Ш		
		important important	important         neither           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □           □         □	important         neither         important           □         □         □           □         □

## 10) How important do you consider the following company-specific factors of your establishment in the Single European Market Environment ?: (please, tick one in each line)

	not at all important	not very	neither	quite important	very important
Supplier links (eg.more EC suppliers)	Ш		니	Ц	L
Product-quality		L		Ц	
Product-innovation & development		ப	L		Ц
Production capacity	Ш		Ц	<u></u>	
Advertising budget		Ш		L	
Price-strategies	L	L	L	Ш	L
Distribution channels	L	(L)	Ц		
Communication systems -internal -external					L) L)
Capability of staff as regards European business procedures	ப	Ш			L
Administration procedures Accounting procedures to new EC-standard		Ш		[_] [_]	L)
Credit from other institutions in EC	Ц				L
Links with other businesses of your nature: (licensing, cross-licensing etc.)					
- in your region - in the UK - in EC					
Availability of information about:					
-New European regulations & their implications -Products in other	Ш		L		
European countries -Pricing structures in other		Ш		Ш	
European countries	<u></u>	<u></u>	[_]		

11) Please note: Answering this section is optional but would be extremely helpful and beneficial for the outcome of the survey. You can be assured that completing this section will have no influence on the strict confidentiality of this survey!

Name of company:	
Address:	
Telephone:	Fax:
Name of respondent:	
Position in company:	
I would like to stay in contact	
for further cooperation and would	
like to be informed about the results	
of the survey: yes []	
no []	

# Again, thank you very much for your cooperation!



#### POLYTECHNIC SOUTH WEST

#### Plymouth Business School

Drake Circus, Plymouth, Devon PL4 8AA, United Kingdom Telephone: 0752 232811 Fax: 0752 232853 Telex: 45423 PSWAS G

#### Sehr geehrte/r

Als Doktorand der Plymouth Business School untersuche ich die ökonomischen Auswirkungen des europäischen Binnenmarktes auf die Lebensmittelindustrie Deutschlands und Englands.

Im Zuge der europäischen Integration ändern sich zukünftig die ökonomischen, nationalen und regionalen sowie unternehmensspezifischen Bedingungen für die Unternehmen. Die Absicht, die mit diesem Fragebogen verfolgt wird, ist Einsicht zu gewinnen, in Ihre persönlichen Einschätzungen bezüglich des Einflusses dieser Faktoren auf die zukünftige Entwicklung im deutschen und englischen Lebensmittelsektor.

Ziel dieses Projektes ist die Erstellung eines strategischen Leitfadens, um den Unternehmen eine Entscheidungshilfe an die Hand zu geben, und eine effektive Reaktion auf die Herausforderungen des Binnenmarktes zu ermöglichen.

Die Beantwortung dieses Fragebogens wird Sie nicht länger als 5 - 10 Minuten in Anspruch nehmen.

Bitte schicken Sie den ausgefüllten Fragebogen in dem beigefügten, frankierten und selbstadressierten Briefumschlag zurück.

Sämtliche Informationen unterliegen strengstem Datenschutz und es werden keine Daten publiziert, die in irgendeiner Art als Antwort eines bestimmten Unternehmens identifiziert werden können!

Sollten Sie weiteres Interesse an diesem Projekt oder an einer möglichen Kooperation mit diesem Projekt haben, dann füllen Sie bitte die Details auf der letzten Seite aus. Dies ist selbstverständlich nicht zwingend für die Beantwortung dieses Fragebogens!!

Falls Sie Fragen bezüglich des Fragebogens oder der Untersuchung haben, dann zögern Sie nicht, mich anzurufen unter 0044/752/232857 oder 0044/752/232807 (Nicky May, Sekretariat).

Im Voraus möchte ich mich für Ihre Teilnahme an dieser Untersuchung recht herzlich bedanken!

Mit freundlichen Grüßen,

#### Ralf A. Brickau

# Untersuchung über die Auswirkung des europäischen Binnenmarktes auf die Lebensmittelindustrie Deutschlands und Englands

erstellt von

Ralf A. Brickau

B.A.(hons), Dipl.- Betriebswirt

Polytechnic South West Plymouth Business School

Tel.: 0044/752/232857

Oktober 1991

* Charak	teristika Inres	Unternehmens <sup>3</sup>	<b>*</b>					
1) Ist Ihr Unternehmen an dieser Adresse:  (Kreuzen Sie bitte nur einmal un)  eine unabhängige Einzelfirma  ein Firmen - Stammsitz  eine Filiale eines nationalen Unternehmens  eine Filiale eines internationalen Unternehmens  eine Filiale eines internationalen Unternehmens  ()  Nennen Sie bitte die Hauptfunktionen und Hauptproduktgruppen Ihres Unternehmens?  (bitte kreuzen Sie alle Möglichkeiten an)								
	Herstellung	Veredlung (auch Verpack- ung)	Distribution (Großhandel)	Forschung & Entwicklung	Service Funktion (z.B Zentralbüro- funktion o. Handels- Agentur)			
Fleisch/ Fleischprodukte				f }	[]			
Fisch/ Fischprodukte								
Geflügel/ Geflügelprodukte				[_]				
Süßwaren								
Früchte/ Fruchtprodukte		[_]						
Gemüse/ Gemüseprodukte		<b>Ш</b> .						
Getränke								
Backwaren		[_]						
Milchprodukte								
Sonstige (bitte spezifizieren S	[] ie)							
<del></del>			- A 16 -					

3)	Wieviele Mitarbeiter sind z	ur Zeit in Ihr	em Un	ternehmen beschäftigt ?:
		1 - 4	[_]	
		5 - 24	[_]	
		25 - 49	[_]	
		50 - 99	[_]	
		100 - 199	[]	
	200+ (bitte spe	zifizieren Sie	) []	[] Beschäftigte
4)	Für wie lange besteht Ihr Ur (bitte kreuzen Sie nur einmal an)	nternehmen <sub>.</sub>	ım jetz	igen Standort ?:
		1 Jahr	[_]	
	:	2 - 4 Jahre	[_]	
	:	5 - 10 Jahre	[]	
		11 - 19 Jahre	[_]	
	20+ Jahre (bitte spezifi	zieren Sie)		[] Jahre

#### \* Charakteristika Ihres Unternehmensumfeldes \*

5a)	ia) Importiert Ihr Unternehmen aus anderen Ländern?:				
		[] (wenn ja, bitte nach 5b)			
	Nein	[] (wenn nein, bitte nach 6)			
	Nein, aber in Zukunft daran interessiert	[] (bitte gehen Sie nach 6)			

#### 5b) (bitte kreuzen Sie alle Möglichkeiten an)

Ja, wir importieren	Roh - material	Halb - fertig produkte	Fertig produkte	Maschinen/ Werkzeuge
aus:		-		
anderen EG-Staaten •	<u>[_]</u>	[نــا	[_]	
Europa, aber nicht EG-Staaten			[_]	
Ost - Europa		[_]		
den USA/Kanada				
Süd - Amerika		. [_]		[_] .
Asien		[_]	[_]	[_]
Afrika	[]	[_]		<u></u>
Sonstige (bitte spezi- fizieren sie)				

<sup>\*1 (</sup>EG - Mitglieder: England, Irland, Deutschland, Frankreich, Dänemark, Spanien, Portugal, Italien, Griechenland, Niederlande, Luxemburg und Belgien)

6) Exportiert Ihr Unternehmen in andere Länder ?:								
Ja [] (wenn ja, bitte nach 6b)  Nein [] (wenn nein, bitte nach 7)  Nein, aber in Zukunft daran interessiert [] (bitte gehen Sie nach 7)  6b) (bitte kreuzen Sie alle Möglichkeiten an)								
Ja, wir exportieren	Roh - material	Halb - fertig produkte	Fertig - produkte					
in/nach: andere EG-Staaten •		f 1						
	<u> </u>	[_]						
Europa, aber nicht EG-Staaten	[ <u>_</u> ]							
Ost- Europa	<u></u>							
die USA/Kanada	[_]							
Süd - Amerika		<u></u> ]						
Asien								
Afrika	ட							
Sonstige (bitte spezi- fizieren Sie)			[_]					

<sup>\*1 (</sup>EG - Mitglieder: England, Irland, Deutschland, Frankreich, Dänemark, Spanien, Portugal, Italien, Griechenland, Niederlande, Luxemburg und Belgien)

(bitte in jeder Reihe einmal ankreuzer	<b>u</b>				
Wettbewerber:	völlig unwichtig	nicht wichtig	weder /	ziemlich wichtig	sehr wichtig
Unternehmen in der Region			[_]	[_]	[_]
Unternehmen in Deutschland	[_]				
Unternehmen in der EG 1		[_]	[_]	[_]	
Unternehmen außerhalb der EG	[]	[]			

Wie wichtig stufen Sie die Wettbewerber ein, denen Ihr Unternehmen zukünftig

ausgesetzt sein wird oder schon ist?:

7)

(wenn außerhalb, bitte spezifizieren)

\*1 (EG - Mitglieder: England, Irland, Deutschland, Frankreich, Dänemark, Spanien, Portugal, Italien, Griechenland, Niederlande, Luxemburg und Belgien)

## 8) Für wie wichtig halten Sie die folgenden nationalen Faktoren für Ihr Unternehmen im europäischen Binnenmarkt ?: (bitte in jeder Reihe einmal ankreuzen)

	völlig unwichtig	nicht wichtig	weder / noch	ziemlich wichtig	sehr wichtig	
Wechselkurs						
Einkommens/ Körperschafts/ Mehrwertsteuer			Ш	[_]	L)	
Kredit- kosten		Ц	L	L	ப	
Finanzierung durch Risiko- kapitalgesellschaften	<u></u>	<u>L</u> )	. П	L	Ш	
Volkswirtschaftliche Wachstumsrate	<u></u>	Ц		L	L	
Inflations- rate		Ц		L	Ц	
Lohnkosten (Gehälter/Löhne)			L.	L)		
Lohnnebenkosten (Sozialversicherung, etc.)		Ш			Ш	
Arbeitsmarktrechtliche Bestimmungen (Arbeitsstunden, Entlassungen etc.)		Ш		ப		
Wirtschaftspo- litik (z.B. F&E, Subventionen, Ener- giepolitik)		L	<u></u>	Ш	Ц	
Rechtliche Bestim- mungen (z.B. Umweltschutz Hygienebestimmungen)			L	[_]	ட	
Verwaltungsabläufe des Bundes (z.B. Dauer von Bewilligungen)		Ĺ.)	Ш	Ш	Ш	

#### europäischen Binnenmarkt ?: (bitte in jeder Relhe einmal ankreuzen)

(-1		П	. 🗀	[ ]	Soziales Klima (z.B. Mitarbeitet- verhältnis, Flexibilität, Gerwerkschaftsaktivitäten)
<u> </u>	П	Г	[-]		Industriegelände (Kosten & Möglichkeit der Expansion)
			[]		Abfallentsorgung: - Verfügbarkeit - Kosten
[-]		[_]	[_]		Kommunikation (Telefon, Fax)
	[7]	(_)	[7]		Energieversorgung (Elek- trizität,Gas,Wasser): - Verfügbarkeit - Kosten
				(-)	Anbindung an Verkehrsnetz (Sraßen-, Bahn-, Luft Wassertransport)
					- Maschinenwarung etc.
				П	. Werbe- & Berntungsagenturen
□	П	$\Box$	[]		- Banken, Versicherungen, Rechtsbeistand etc
 					Servicesektor:
					Nähe von Unternehmen in der gleichen Branche
	[-]	$\Box$			Lieferantennähe (a.B. Rohstoffe)
					Kundennähe
sehr Sinhoiw	ziemlich Sitriziw	weder / noch	nicht wichtig	yöllig girdəiwnu	

#### Fortsetzung Frage 9) auf nächster Seite!

#### Fortsetzung Frage 9)

	völlig unwichtig	nicht wichtig	weder / noch	ziemlich wichtig	sehr wichtig
Verfügbarkeit & Kosten des Wohnens				LJ	Ц
Verfügbarkeit & Qualität der Schul- ausbildung und Fortbildungsmöglichkeiten	<b></b>	<u>.                                    </u>	L		L) ,
Verfügbarkeit von Mitarbeite - qualifiziert	em: []			L	
- teilqualifiziert					Ш
- nicht qualifiziert	<u></u>	Ш			Ш
Nähe von Berufsschulausbild Managertrainingsmöglich- keiten (z.B. Seminare)	lung/	[_]			Ш
Nähe von Universitäten, Fachhochschulen, Meister- schulen, Forschungsanstalten	<u></u>				Ц
Regionale Anreize (z.B. Subventionen)	Ш				Ш
Kooperation mit regionalen Institutionen/Flexibili- tät von Planungsentscheidung durch kommunale Ämter	[] gen	<u>.</u>			ப
Kooperatives Marketing	<u></u>				Ш
Kommunale/regionale Steuern & öffentliche Gebühren					Ш
Sonstiges (bitte spezifizieren)				ப	(L)

## 10) Für wie wichtig halten Sie die folgenden unternehmensspezifischen Faktoren Ihres Unternehmens im europäischen Binnenmarkt ?: (bitte in jeder Reihe einmal ankreuzen)

	völlig unwichtig	nicht wichtig	weder / noch	ziemlich wichtig	sehr wichtig	
Lieferantenverbindungen (z.B. mehr EG-Lieferanten)		()		[_]	Ш	
Produktqualität	ட	Ц	Ш	(L)		
Produktinnovation & Entwicklung	ப	L	ப		Ц	
Produktionskapazitāt	<u></u>	Ц			Ш	
Werbebudget					Ц	
Preisstrategien		L				
Distributionkanäle		<u></u> Ц		(L)		_
Kommunikationsysteme -intern -extern	П					
Ausbildungsstand der Mitarbeiter im Bezug auf europäische Geschäfte	Ц		Ш	L	Ш	
-Verwaltungsabläufe -Rechnungswesen nach neuem EG-standard				[_] [_]		
Kredite von anderen Institutionen in der EG	Ш	L		L	[_]	
Beziehungen mit Unternehmen der gleichen Branche: (Lizenzen, etc.)						
- in Ihrer Region - in Deutschland - in der EG		П П .				
Verfügbarkeit von Informationen über:						
-Neue europäische Bestimmungen & ihre Auswirkungen - Produkte in anderen	ப	Ш	ப	ப		
europäischen Ländern - Preisstrukturen in anderen	니		ட	Ш		
europäischen Ländern	<u> </u>	<u> </u>		L		

11) <u>Bitte beachten:</u> Die Beantwortung dieser Seite ist freigestellt, sie wäre aber extrem hilfreich und von Vorteil für den weiteren Verlauf dieser Untersuchung. Es wird Ihnen hiermit ausdrücklich noch einmal versichert, daß auch wenn Sie diese Seite ausfüllen, die Vertraulichkeit dieser Untersuchung in keiner Weise negativ beeinflußt wird!

Name des Unternehmens:						
Addresse:						
Telefon:	Fax:					
Name des Auskunftgebenden:						
Position im Unternehmen:						
Ich würde gerne in Kontakt bleiben						
für weitere Kooperation und würde						
gerne über die Untersuchungsergebnisse						
unterrichtet werden:						
Ja [ <u>    ]</u>						
Nein []	·					

## Noch einmal herzlichsten Dank für Ihre Hilfsbereitschaft!



#### **Plymouth Business School**

University of Plymouth Drake Circus Plymouth Devon PL4 8AA United Kingdom

Telephone: 0752 232800 Fax: 0752 232853

Mr D T King, BSc (Econ), MSc, FBIM

Dear

September 1992

The Plymouth Business School, in collaboration with Devon & Cornwall Development Company, Food from Britain, Unicorn, and Taste of the West is researching the implications of the Single European Market for the UK South West food and drinks industry.

The purpose of the enclosed survey is to determine whether your company sees certain factors as an advantage or a disadvantage in relation to your future operations within the Single European Market environment.

It is hoped that the results of this research will ultimately be of benefit to firms seeking to more effectively respond to the post-1992 market environment.

The survey should not take more than 5 minutes to tick the relevant boxes.

Please return the completed questionnaire in the enclosed stamped, addressed envelope.

All information will be treated in the strictest confidence and no data will be published which can be identified as a response from a specific organisation or company.

If you need further information on either the research project or before you are willing to complete the survey, please do not hesitate to contact me at any time on 0752/232857 or 0752/232807 (Nicky May, secretary).

Yours sincerely,

Ralf A. Brickau

### Single European Market Survey on UK South West Food Industry

Compiled by

#### Ralf A. Brickau

B.A.(Hons), Dipl.-Betriebswirt

# University of Plymouth Plymouth Business School

Tel.: 0752/232857 Fax.: 0752/232853



### in co-operation with the following institutions:

### **Devon & Cornwall Development Company (DCDC)**

(Sue Blacker - Tel.: 0208/873485)

#### Food from Britain

(Bud Wendover - Tel.: 0392/881493)

### **Union of Cornish Producers (Unicorn)**

(Mike Horrell - Tel.: 0579/62244)

#### Taste of the West

(Diane Lethbridge - Tel.: 0392/445675)

Please indicate the main product groups as well as the main activities your establishment is involved in:  (Please, tick as many as neccessary)						
				•	,,	
	Manufacturing	Assembly (packing etc.)	Distribution	Research & Development	Service activities (eg. central office function or trade agency)	
Meat/processed meat						
Fish/processed fish						
Poultry/process. poultry						
Confectionery						
Fruit/process. fruit						
Vegetables/process. veget						
Beverages						
Bakery Products						
Dairy Products						
any other (specify)						

Question 2.)	
Please indicate the market/s your establishment mainly	operates in :
	(Please, tick one)
Only regional market	
UK national market	
UK and European Community markets	
UK, markets inside and outside European Community	

Question 3.)
Please indicate whether your business at this address is: (Please, tick one)
A Single Site Business
A Headquarters Unit
A Subsidiary/Branch of a National Enterprise
A Subsidiary/Branch of a Foreign Enterprise
Question 4.)
Please indicate the number of employees currently employed at your establishment:  (Please, tick one)
1 - 4
5 - 24
25 - 49
50 - 99
100 - 199
200 + (specify) employees
Question 5.)
Please indicate for how many years your establishment has
existed at this address: (Please, tick one)
1 year
2 - 4 years
5 - 10 years
11 - 19 years
20 + (specify) years

Question 6.)Please indicate whether each of the factors below is considered to be an advantage or a disadvantage to your company within the European Single Market in relation to your European counterparts

	strong disdavantage	some disadvantage	neither	some advantage	strong advantage
Product Quality					
Product Innovation & Development					
Production Capacity					
Pricing Strategies					
Labour Market Regulations (working time, redundancy, sick payment etc.)					
Indirect & Direct Labour Costs (social security etc.) (wages/salaries)					
Availability of Skilled Labour					
Capability of Staff as regards European Business Procedures					
Social Climate (labour relations, trade union activities etc.)					
Communication Facilities (external & internal)					
Distribution Channels					
Connections to Traffic Network (road-, rail-, air-, water transport)					
Proximity of Customers					

#### Question 6.) continued:

	<u>-</u>	strong disadvantage	some disadvantage	neither	some advantage	strong advantage
	Proximity of Suppliers (eg. possibility of raw materials from other EC countries)					
	Cost of Borrowing			•		
	Economic Growth Rate					
	Inflation Rate					
	Cost & Availability of Waste Disposal					
	Cost & Availability of Energy Supply					
.	Information about: New EC Regulation & Implications					
	Pricing Structures in other EC Countries					<u> </u>
	Products in other EC Countries			· ·		
	Administration & Accounting Procedures according to new EC Standards					
I	Existing Legal Regulations eg. Environmental Protection, Hygiene Regulations)					-
C F	Co-operation with/Flexibility of Regional Authorities					
I	ndustrial Policies g. R&D, Incentive Schemes, Energy Policy)					

Question 7.)	Please note: Answering this section but would be extremely helpful and for the outcome of the survey and for You can be assured that completing will have no influence on the strict of this survey!!	beneficial or further contact. this section
Name of comp	any:	
Address:		
Telephone:	Fax:	
Name of respon	ndent:	
	pany:	
osition in com		
osition in com		
	stay in contact	
would like to for further co-o	* 7	

Again, thank you very much for your co-operation!



#### Plymouth Business School

University of Plymouth Drake Circus Plymouth Devon PL4 8AA United Kingdom

Telephone: 0752 232800

Fax: 0752 232853

Mr D T King, BSc (Econ), MSc, FBIM

Plymouth/ Dortmund im August 1992

Sehr geehrte/r

im Zuge der Realisation des europäischen Binnenmarktes ändern sich ab 01.01.1993 die ökonomischen, sowie die unternehmensspezifischen Bedingungen für viele europäische Unternehmen.

Deshalb untersucht die Business School der Universität von Plymouth in Zusammenarbeit mit der Fachhochschule für Wirtschaft in Dortmund die strategischen Implikationen der Chancen und Risiken des europäischen Binnenmarktes für kleine und mittelständische Unternehmen der Lebensmittelindustrie Deutschlands und Englands.

Ziel dieser Untersuchung ist es, für Unternehmen eine Entscheidungshilfe zu entwickeln, mit der effektiver auf die Herausforderungen des Binnenmarktes reagiert werden kann. Dies wird sicherlich auch für Ihr Unternehmen von großem Interesse sein. Nach Abschluß der Untersuchung in 1993 können Ihnen die Untersuchungsergebnisse zur Verfügung gestellt werden.

Bitte stellen Sie mit der Beantwortung des beiliegenden Fragebogens Ihre persönlichen Einschätzungen zu den aufgeführten Faktoren, im aktuellen Bezug auf Ihr Unternehmen, dar.

Dies wird Sie nicht länger als 5 Minuten in Anspruch nehmen!

Absoluter Datenschutz ist selbstverständlich und die Untersuchungsergebnisse werden keinerlei Zusammenhang mit einzelnen Unternehmen erkennen lassen.

Bitte schicken Sie den ausgefüllten Fragebogen in dem beigefügten frankierten und selbstadressierten Briefumschlag zurück.

Für eventuelle Rücksprachen stehe ich Ihnen unter 0044/752/232807 jederzeit zur Verfügung. Im voraus herzlichen Dank für Ihre Kooperation.

Mit-freundlichen Grüßen

Ralf A. Brickau

Untersuchung über die Auswirkungen des europäischen Binnenmarktes auf die Lebensmittelindustrie Deutschlands und Englands

August 1992

Erstellt durch

Ralf A. Brickau

B.A.(Hons), Dipl.-Betriebswirt

University of Plymouth Plymouth Business School

> Tel.: 0044/752/232807 Fax.: 0044/752/232853



Frage 1.)				
Bitte nennen Sie die Hau	ıptproduktgı	uppen,sov	wie die Ha	uptfunktionen
Ihres Unternehmens:	(Bitte kreuz	en Sie alle Mög	lichkeiten an)	
Herstellung	Veredelung (anch Verpackung)	Distribution (Großhandel)	Forschung & Entwicklung	Service Funktion (z.B. Zentralbüro - funktion oder Handelsagentur)
Fleisch/Fleischprodukte				
Fisch/Fischprodukte				
Geflügel/Geflügelprodukte				
Süßwaren				
Früchte/Fruchtprodukte				
Gemüse/Gemüseprodukte				
Getränke				
Backwaren				
Milchprodukte				
Sonstige (bitte spezifizieren)				
Frage 2.) Bitte nennen Sie den Haup Unternehmen operiert: Nur regionale Märkte Gesamtdeutscher Markt Deutschland und Märkte de			(Bitte nure	cinmal ankreuzen)
Deutschland, Märkte inner außerhalb der Europ. Geme				

Frage 3	.)			
Ist Ihr	Unternehmen an	dieser Adresse		(Pina)
	abhängige Einze	그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그		(Bitte nur einmal ankreuzen
	men - Stammsitz			
J: 1	liale eines nation			
	liale eines auslän			
EMC IN	naic cines austai	uischen Unterr	nenmen	s L
Frage 4	Y			
Wieviel	e Mitarbeiter sin	d zur Zeit in Ih	rem Ur	iternehmen
beschäf	igt?:	The state of the s	0.1 4 400	al ankreuzen)
	1-4			
	5 - 24			
	25 - 49			
	50 - 99			
	100 - 199			
	200 + (bitte s	pezifizieren)		Beschäftigte
Frage 5.)				
Standort'	ange besteht Ihr			
otaridori			Bitte nur ei	nmal ankreuzen)
	1 Jahr			
	2 - 4 Jahre			
	5 - 10 Jahre			
F 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NOT THE STATE OF T	TO THE SECOND SECOND SECOND	Branch Co	
	11 - 19 Jahre			

Frage 6.) Die folgenden Faktoren haben besondere Bedeutung im Hinblick auf den europäischen Binnenmarkt. Bitte beurteilen Sie in dieser Hinsicht, ob diese Faktoren derzeit Vor- oder Nachteile für Ihr Unternehmen darstellen:

(Bitte kreuzen Sie in jeder Reihe einmal an)

	starker Nachteil	geringer Nachteil	weder/ noch	geringer Vorteil	starker Vorteil
Produktionskapazität					
		Г			
Produktinnovation & Entwicklung					1 31.50
Produktqualität					
roduktquantat					
Preisstrategien			A A A A A A A A A A A A A A A A A A A	- 2×4.133, 1.33×1/3	
Arbeitsmarktrechtl. Bestimmungen (Arbeitsstunden, Entlassungen, Krankengeld etc.)		1188 OSCIT (18 18	A - 200 S 150 S 100 S	2000 No. 10 Vindo	5 (1.49 T. days)
Lohn-& Lohnnebenkosten					
(Löhne/Gehälter) (Sozialversicherung etc.)					
Verfügbarkeit qualifiz. Mitarbeiter					
Ausbildungsstand der Mitarbeiter im Bezug auf europäische Geschäfte					
Socialar VIII					
Soziales Klima (Mitarbeiterverhältnis, Gewerkschaftsaktivitäten)					
Kommunikationssysteme					
Distributionskanäle					
Anbindung an Verkehrsnetz (Straßen-, Bahn-, Luft-, Wassertransport)					
Килdennähe					

### Fortsetzung Frage 6.):

	starker	leichter	weder/	leichter	
	Nachteil	Nachteil	noch	Vorteil	starker Vorteil
Lieferantenverbindungen (z.B. Bezugsmöglichkeit von Rohmaterial aus anderen EG-Ländern)					
aus anderen EG-Ländern)					
Kreditkosten					
		1			1
Volkswirtschafliche Wachstumsrate				Γ	T
	L				
Inflationsrate				Γ	T
Abfallantaarrama Vaarra 0 tv S	.				т —
Abfallentsorgung: Kosten & Verfügbarkei	it				<u> </u>
Energie: Kosten & Verfügbarkeit					
Informationen über: Neue EG-Bestimmungen & Auswirkur	19				
•					L
Preisstrukturen in anderen EG-Ländern	1				
Produkte in anderen EG-Ländern		T			
Verwaltungsabläufe & Rechnungswesen		Γ	Т		
nach neuem EG-Standard					_
Postosta de la casa da	<del>                                    </del>	— т	T		
Existierende rechtliche Bestimmungen z.B. Umweltschutz- oder Hygienebestimmungen)		<u></u>			
Kooperation mit regionalen Institutionen Flexibilität von Planungsentscheid. Iurch kommunale Ämter					
nurch kommunale Amter					
Wirtschaftspolitik z.B. F&E, Energie Politik, region. Anreize)					
-					

	Bitte beachten: Die Beantwortung dieses Fragenteils ist freig sie wäre aber extrem hilfreich und vorteilhaft für den weitere Verlauf der Untersuchung, sowie für weiteren Kontakt. Es wird Ihnen hiermit aus drücklich versichert, daß, auch we Seite ausfüllen, die Vertraulichkeit dieser Untersuchung auf	en
	Unternehmens:	
Adresse:		
` - <del> </del>		
Telefon:	Fax:	
	Fax:	
Name des A	C	
Name des A	uskunftgebenden: Unternehmen	
Name des A  Position im  Ich würde g	uskunftgebenden:	

Nochmals vielen Dank für Ihre Bemühungen!



January 1993

Plymouth Business School

University of Plymouth Drake Circus Plymouth Devon PL4 8AA United Kingdom

Telephone: 0752 232807 Fax: 0752 232853

Admissions

Dear

The Plymouth Business School, in collaboration with Devon & Cornwall Development Company, Food from Britain, Unicorn, and Taste of the West is researching the implications of the Single European Market for the UK South West food and drinks industry.

The purpose of the enclosed survey is to learn about different aspects of how your company is managed with a particular view to the environment of the new Single European Market. This stage of the survey is vital to the overall outcome of this major research project and your participation will ensure meaningful results. These results will ultimately be of benefit to firms seeking to respond more effectively to the Single European Market environment.

This survey only requires you to tick the relevant boxes and it should not take you more than 5 to 10 minutes (at the very most).

Please return the completed questionnaire in the enclosed stamped, addressed envelope.

All information will be treated in the strictest confidence and no data will be published which can be identified as a response from a specific organisation or company.

If you need further information on either the research project itself or further details prior to completing the survey, please do not hesitate to contact me at any time on 0752/255882 (Research Office) or 0752/232857 (Nicky Thomas, secretary).

Yours sincerely,

Ralf A. Brickau

# Single European Market Survey on UK South West Food Industry

Compiled by

#### Ralf A. Brickau

B.A.(Hons), Dipl.-Betriebswirt

# University of Plymouth Plymouth Business School

Tel.: 0752/232857 Fax.: 0752/232853



in co-operation with the following institutions:

# Devon & Cornwall Development Company (DCDC)

(Sue Blacker - Tel.: 0208/873485)

#### Food from Britain

(Bud Wendover - Tel.: 0392/881493)

## **Union of Cornish Producers (Unicorn)**

(Mike Horrell - Tel.: 0579/62244)

#### Taste of the West

(Diane Lethbridge - Tel.: 0392/445675)

3.7.1		(Please, tick as many as neccessary)					
Main Activities				Service activities			
Manufacturing	Assembly - (packing etc.)	Distribution	Research & Development	(eg. central office function or			
				trade agency)			
Main Product Gr	oups						
Meat/processed meat	Fish/processed fish	Poultry/process. poultry	Confectionery	Fruit/process. fruit			
Vegetables/process. vegetables	Beverages	Bakery Products	Dairy Products	Any other (specify)			
			· · · · · · · · · · · · · · · · · · ·	mainly operates: (Please, tick one)			
			Vest regional n UK national n				
	UK	and European (					
UI	K, markets insid	le and outside E	ropean Comn	unity			
lease indicate	whether you	r business at tl	his address i	s:			
		Α	Single Site Bu	(Please, tick one)			
		4 2		cinace			
	A Subsidi	A	Headquarter	s Unit			
			Headquarter National Ente	s Unit			
ease indicate mpany:	A Subsid	Aary/Branch of a	Headquarter National Ente Foreign Ente	rprise prise			
ease indicate mpany:	A Subsid	A ary/Branch of a liary/Branch of a liary/Branch of a liary/Branch of a liary/Branch of employees co	Headquarter National Ente Foreign Ente  urrently em	rprise prise			
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mpany: ease indicate f	A Subsident the number of the	ary/Branch of a liary/Branch o	Headquarter National Enter Foreign Enter urrently em  (Please, tick one)  (mpany has empany empany has empany empany empany has empany empa	oloyed by your			

6. Please identify which of	the foll	owing is	the curre	nt company	sales goa	ıl:
7. Please indicate which the next 3 - 5 years:	 of the fo	ollowing	A	Reduce Sales Prevent Sales Maintain Curre Steady Sales ggressive Sales Dominate the	Decline ent Sales Growth Growth Market	(Please, tick or
						(Please, tick on
	Stay	with curre	ent product	s in current n	arkets	
				cts into new m	er states)	
	D			for current m		
		Develop	new produ	octs for new m (eg. EC memb	arkets er states)	
			<del></del>		<u></u>	
8. Please consider the state level of agreement:	tements	about c	ompany	objectives a	nd indic	ate your
(Please, tick one in each line)	1	Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly
Profit Growth over longe	r term					
Immediate improvement in cas	h-flow					;
Increase tu	rnover					i
Increase marke						
Achieve high short-term	profits					
9. How important are the business:	_	ving acti	vities see	n by you ir	manag	ing your
(Please, tick one in ea	ch line)	very. important	important	nelther important nor unimportant	unimportant	very Important
Marketing	Planning			]		
Market	Research					
Monitoring co	1					
Setting of Formulating	objectives detailed		<u></u>			
Strat	egic Plan		<u> </u>			
Formulating Single Europea Ac						
10. Please indicate on the	<del></del> 1.	. – – – – . In positio				
10. Please indicate on the of your product and/or	r service	•	)n in term Tease, tick one		or appe	ai of
Appeals to a very small specialist group	Appeals to	about	Appeals to abo	out Appeals ers 3/4 of cu	to about istomers	Mass appeal
of customers	<u>in mark</u>	et	in market	in m	rket	product

11. Please indi outlets:	icate to what ex	tent your p	roducts are	sold throug	h the follov	ving
	(Please, tick	k one in each line)	All	Most	Some	None
		Your own Shop(	─┐└───		Some	None
	Your own	Catering Outlet(	(s)			
		Local Shop	ps   ===================================			
	Loca	l Catering Outle	ts			
	Regio	onal Retail Chair	15			<del>  </del>
	Regiona	l Catering Outle	ts			
ļ	Natio	nal Retail Chair	ıs			
	National	Catering Outle	ts   ===================================	H		
ľ	Europe	ean Retail Outle	ıs   🚞			
	European	Catering Outlet	s   F	<del>     </del>		
	Any Oth	er (please specify				
<u> </u>			J)	<u> </u>	L	
12. The quality	of your main p	oroduct(s) ca	an be best d	escribed as:	:	
		Very High	High	Average	Low	Very
	(Please, tick one)	<u> </u>				Low
	(riesse, tier one)			<u> </u>		
13. Considerin current pro	g your main pro oduct specificati	oduct(s) ple ion/formula Less than 1 year	ase identify tion:	the approxi	imate age o	More than
	(Please, tick one)					10 years
· <b></b>	(r lease, tick one)		<u> </u>			
14. Which best	describes the cu	irrent sales	performanc	e of your m	ain produc	et(s):
		Cor		s but rapidly r		
	(Please, tick one			s and rapidly ri and steadily ri		
				ne and unchan		
				lume and decli		
			omeg dares vo	date and deen	mug demand	لــا ك
15. Which of the	e following desc	ribes the pr	ice of your	main produ	 ct(s):	
		Very			<del></del> _	V
		High	High	Average	Low	Very Low
	(Please, tick one)					

16. To what extent are your			nded on (	he followi	ing	
promotional activities:	(Please, tick one	in each line)	All	Most	Some	None
		tising in local pape ng in national pape				
		radio commercial		Ħ	K	片
		journals/magazine		Ħ	H	片
	-	TV commercial	. ,	H	片	片
		Brochures to trade		H	H	님
	1	Costumer mailshot	,	H	님	님
	Advertising	done by customer	,    -	H	H	片
		(eg retail chains		H	H	님
	¥	Posters/Billboards		片	片	님
	1	to trade customers		H	片	님
				H	님	님
	FOIRT OF SAILE	samplings/tastings		片	H	닐
		Sales Force		H	片	닖
i		Trade agencies Trade exhibitions	1 ==	님	$\square$	닏
	<u> </u>	Trade exhibitions		لــا		
17. Please consider the fol and indicate how strong	lowing pos ngly you a	ssible compe re respondi	etitive fo ng to the	 rces to yo se:	our com	pany
(Please, tick one in each line)	·	Respond very strongly	Respond fairly strongly	Respond t	o Do not	respond
Rivalry from companies in	in UK					
same industry sector	in EC	<b> </b>			ר ר	
Threats of new entrants	from UK			<u> </u>	i –	=
into the market					, L	
	from EC			<u></u>	J	
Threat of substitute products	from UK	LJ			] [	
- The constitute products	from EC				) [	<del></del> -
	in UK	i —			i 💳	===
Bargaining power of suppliers	in EC				,	
				<u> </u>	<u> </u>	
Bargaining power of	in UK	L			] [	
your customers	in EC			· <u>-</u>	1 [	$\neg$
18. Please consider the factor provides you wit	h a compe	titive advan	tage in t	which e	xtent ea	 ich
(Please, tick one in each line)	Strong competi Advantage	tive Some comp Advantage		tle competitive Advantage	No comp Advar	
Low price of the product		- Inchain Line	1	Auvantage	Auvan	
Uniqueness of the product		<u> </u>	;	==-	<u> </u>	<b>=</b> {
High quality of the product		<del></del>	<b>∮</b> ⊢	==-{	<u> </u>	<del>_</del> {
Product Design		<del></del>	i ⊦	<del></del>	<u> </u>	<b>≕</b> {
Efficient supply of product		<del></del>	i F	━	<u> </u>	<b>≕</b> {
Well established brand name			i -		<del>                                     </del>	=-{
Aftersales Service			i F	==	<u> </u>	=={
Variety within product groups			i F	<del></del>	<b>}</b> —	=
Distribution Channels			i F		<u> </u>	==
Payment Conditions			i	<del></del> -	<del> </del>	=={
Advertising/Sales Promotion					<u> </u>	一

to which extent it is currently utilis	itial prod	luction-c	apacity	and in	dicate to
to which extent it is currently utilis	ea:	less tha	n 50%		
(Pleas	e, tick one)	50	0-80%		
		81.	-100%		
20 D 14 J- 1	·				
20. Do you intend to increase and/or ha	ave you i	recently e	expande	d your	production
capacities? (Please, tick one)					
No go to Questi	ion 22.)	Yes		go to	Question 21.)
21. Which were the major reasons for	 incressi	,			
major reasons for	mer cash	ig your p	rouucu	оп сара	acity:
(Please, tick one in each line) very importan	import nt	neit lant import unimp	ant nor un	important	not at all
Increased demand on regional level		<del></del>	J. Lam.		
Increased demand	<u> </u>				<u></u>
on national level					{
New contracts from large customers		7			
(eg retail chains etc.)  Expected increased demand	<u> </u>				<u> </u>
from other EC countries		_			
Expected increased demand from outside EC					
Investment in new EC approved production technique & machinery		7			
		- <u>-</u>			
22. Please indicate the nature of your pr	oduction	methods	s: <sub>(1</sub>	Please, tick	one)
Highly		ince of			
labour-intensive labour-intensiv		ur and mation	automate	d 8	Highly nutomated
23. What, approximately is the age of the	majority	of your pi	roductio	n mach	inery:
				ıse, tick one	
		up to 1 year	old [		•
·		en 1-4 years			
		en 5-9 years 10-20 years			
		ver 20 years		<del></del> -	
	<u>`</u>		<u> </u>		
24. When did you last substantially char	nge vour	producti	ion tach	nology	
,	-a- Jour	Producti			
	,	within last y		se, tick one)	)
		n 1-4 years		<del></del> -	
	betwee	n 5-9 years	ago   F	===	
	between 1	10-20 years a	ago   🗀		
	ove	er 20 years a	ago		

25. Considering all roughly how n	ll employees of your es nany of them are:	stablishment, p	lease estim	ate
		Manage Scientifical-techn	<u> </u>	<b>%</b>
		Skilled mar		<b>_</b>
		Semi-skill	led/	<b>⊣</b> %
		Unskilled man		%
	Ac	dministrative/Clerio Secreta	:al/ rial	%]
			100	<b>]</b> %
26. Considering yo	ur most recent new p	 roduct develop	ment projec	t would you
describe this as	<b>5:</b>			ease, tick one)
	P	roducts new to world		
•	Produc	ts new to company bu	t not to world	
	Improve	d performance of exis	ting products	
	Products	to increase breadth o	f product line	<del></del>
	Minor	improvements to exis	ting products	
	Improvement	to reduce costs of exi	sting product	
27. Has this produc	ct development been <u>n</u>	nainly underta		
	You	r own establishmen		ease, tick one)
	or co-opera	•	o s research.	
		suppliers an	d/or buvers	<del></del> -
		universities/p	· 1	<del>  </del>
		other research	· •	
		trade agencies/o	listributors	
			federations	
	<u> </u>	other	companies	
28. How strongly do	you rely on the follow	ving sources in	order to ge	nerato
finance:	(Please, tick one in each line)		To some extent	Not at all
	Personal loans to business		- Co some extent	
	Retained profits			<u> </u>
	Bank overdrafts			
	Bank loans			
	Loans from non-banking sources Issuing shares			
	Government grants		<u> </u>	<u> </u>
	Government subsidies		<del></del>	<del>  </del>
	EC grants			<del>  </del>

	nasing materials for us		usiness:	•		
	(Please, tick one in each line	very importa	nt important	neither important	unimportant	not at all important
		Price				
	Q	uality				
	Terms of pay	ment				
	Reliability of se	пррју				
	Long established rela ship with sup					
	Availability of mate products requ	rials/ L				
	Approximity of sup	oplier				
	Quality of after-sales se	rvice				Ħ
ł	Choice/Range of products/mate	erials			一	
	Incentives/Discounts/Reduc	tions		一		
	Sufficient information by sales	reps				
L	Improving purchasing possible in other EC coun	lities tries				
30. Pleas has b	e indicate below whetle become:	her over th		<del></del>	f your wor	kforce Very much
	(Please tick one)	larger	larger	No change	smaller	smaller
	(Please, tick one)				smaller	smaller
31. Please	e indicate below wheth	ner the ave			smaller	smaller
31. Please	(Please, tick one) e indicate below wheth lishment over the last	ner the aver	rage produc		smaller	smaller
31. Please establ	e indicate below wheth lishment over the last	ner the ave			smaller	smaller
31. Please establ	e indicate below wheth	ner the average 3 years:	rage produc	tivity per en	smaller nployee in Decreased	your Decreased
establ	e indicate below wheth lishment over the last (Please, tick one)	ner the average and average and average and average and average and average and average are average and average and average are average and average are average ar	Increased slightly	tivity per en	smaller  nployee in  Decreased slightly	your  Decreased greatly
establ	e indicate below wheth lishment over the last	ner the average and average and average and average and average and average and average are average and average and average are average and average are average ar	Increased slightly	tivity per en	smaller  nployee in  Decreased slightly	your  Decreased greatly
establ	e indicate below wheth lishment over the last (Please, tick one)	ner the average and average and average and average and average and average and average are average and average and average are average and average are average ar	Increased slightly	No change  Ther impro	smaller  inployee in  Decreased slightly  vernent in	your  Decreased greatly
establ	e indicate below wheth lishment over the last (Please, tick one) e indicate the degree of ing managerial skills:	Increased greatly  Supersty to the priority to	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the
establ	(Please, tick one) ing managerial skills:  (Please, tick one in each line)	Increased greatly  Supersty to the priority to	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the
establ	(Please, tick one)  indicate the degree of ing managerial skills:  (Please, tick one in each line)	Increased greatly  Service to the average of the av	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the
establ	(Please, tick one) e indicate the degree of ing managerial skills:  (Please, tick one in each line)  Decision making Problem solving	Increased greatly  Service to the average of the av	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the
establ	(Please, tick one) e indicate the degree of ing managerial skills:  (Please, tick one in each line)  Decision making Problem solving Monitoring others	Increased greatly  Service to the average of the av	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the
establ	(Please, tick one) e indicate the degree of ing managerial skills:  (Please, tick one in each line)  Decision making Problem solving Monitoring others Leadership skills	Increased greatly  Service to the average of the av	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the
establ	(Please, tick one)  indicate the degree of ing managerial skills:  (Please, tick one in each line)  Decision making Problem solving Monitoring others Leadership skills  Delegation	Increased greatly  Service to the average of the av	Increased slightly	No change  Ther impro	smaller  nployee in  Decreased slightly  vernent in	your  Decreased greatly  the

		ess:			owing
(Please, tick one in each line)  Storage of raw materials	Very high Priority	High Priority	Low Priority	Very low Priority	Not applicat
Handling of works in progress  Storage of finished products  Distribution with own vehicles  Distribution via haulage-contractors  Distribution via wholesalers  Distribution via major customer's transport fleet  Disposal of waste products					
Please note: Answering this shelpful and beneficial for the or You can be assured that compine strict confidentiality of this Name of company:	outcome of leting this	f the survey	and for fu	urther co	ntact.
Address:					
Telephone:  Name of respondent:		Fax:			
Telephone:  Name of respondent:  Position in company:		Fax:			

33. Please indicate in relation to the handling of raw materials, finished goods,

Again, thank you very much for your co-operation!

ERS DELYMON

**Plymouth Business School** 

University of Plymouth Drake Circus Plymouth Devon PL4 8AA United Kingdom

Telephone: 0752 232807

Fax: 0752 232853

Admissions

Sehr geehrte/r

Plymouth / Dortmund im Januar 1993

im Zuge der Realisation des europäischen Binnenmarktes haben sich ab dem 1. Januar dieses Jahres die ökonomischen sowie die unternehmensspezifischen Bedingungen für viele europäische Unternehmen entschieden verändert. Deshalb untersucht die Business School der Universität von Plymouth in Zusammenarbeit mit der Fachhochschule für Wirtschaft in Dortmund die strategischen Auswirkungen des europäischen Binnenmarktes.

Ziel dieser Untersuchung ist es, eine Entscheidungshilfe für kleine und mittelständische Unternehmen zu entwickeln, um ihnen eine effektive Reaktion auf diese neuen Herausforderungen zu ermöglichen. Dies ist sicherlich auch für Ihr Unternehmen von großem Interesse.

Bitte stellen Sie durch die Beantwortung des beiliegenden Fragebogens dar, wie sich verschiedene Aspekte Ihres Unternehmens in bezug auf unternehmerische Ziele oder Planung, Produkte, deren Absatz etc. präsentieren.

Unterstützen Sie bitte diese bedeutende Phase unserer Untersuchung durch die Beantwortung dieses Fragebogens. Dies garantiert stichhaltige Aussagen zu möglichen Strategieansätzen, die Sie zum Vorteil Ihres Unternehmens nutzen können. Die Untersuchungsergebnisse können Ihnen nach Abschluß der Untersuchung im Sommer 1993 zu Verfügung gestellt werden!

Es sind nur Multiple-Choice Fragen anzukreuzen und wird Sie daher nicht länger als 5 bis maximal 10 Minuten in Anspruch nehmen! Absoluter Datenschutz ist selbstverständlich, und die Untersuchungsergebnisse werden unter keinen Umständen Hinweise auf einzelne Unternehmen erkennen lassen!

Bitte schicken Sie den ausgefüllten Fragebogen in dem beigefügten frankierten und selbstadressierten Briefumschlag zurück. Ich stehe für Rückfragen jederzeit unter 0044/752/255882 zur Verfügung. Im voraus herzlichen Dank für Ihre Kooperation!

Mit freundlichen Grüßen

# Untersuchung über die Auswirkungen des europäischen Binnenmarktes auf die Lebensmittelindustrie Deutschlands und Englands

Januar 1993

Erstellt durch

Ralf A. Brickau

B.A.(Hons), Dipl.-Betriebswirt

# University of Plymouth Plymouth Business School

Tel.: 0752/255882 Fax.: 0752/232853



unter Zusammenarbeit mit

Prof. Dr. Laufner
Fachhochschule für Wirtschaft
in Dortmund

Tel.:0231/7554952

	(Bitte kreuzen Sie alle	Möglichkeiten an)	
Veredlung		Forrebung &	Service Funktionen
auch Verpackung)	Distribution	Entwicklung	(z.B. Zentralburo oder
			Handelsagentur)
oen			
isch/Fischprodukte	Geffligel/Geffligel- produkte	Susswaren	Friichte/Fruchtprodukte
			[
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	DECEMBEED.	Milchprodukte	Sonstige (Bitte spezifizieren)
	<u> </u>	L	
den Hauptab	satzmarkt, :	in dem Ihr	
		Jur regionale	(Bitte einmal ankreuzen
			· · · · · · · · · · · · · · · · · · ·
land und Märl	cte innerhalb	& ausserhalh	der FG
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	Eine unat	hängige Einz	
1			
Eine Filia			
iter sind zur	Zeit in Ihrei	n Unterneh	men beschäftigt:
		(Bitte einmal a	
	<b>-</b>		nkreuzen)
1 - 4	- Septiment of		nk <b>r</b> euzen)
5 - 24	Beschäftigt	e 🗀	nkreuzen)
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5 - 24 25 - 49 50 - 99 100 - 199 mehr als 200 	Beschäftigt Beschäftigt Beschäftigt Beschäftigt Beschäftigt 		Bitte konkretisieren Sie Beschäftigte ort:
5 - 24 25 - 49 50 - 99 100 - 199 mehr als 200 	Beschäftigte Beschäftigte Beschäftigte Beschäftigte Beschäftigte amen am jetz	zigen Stand	Bitte konkretisieren Sie Beschäftigte ort:
5 - 24 25 - 49 50 - 99 100 - 199 mehr als 200 	Beschäftigte Beschäftigte Beschäftigte Beschäftigte Beschäftigte Imen am jetz er als 1 Jahre 1 - 4 Jahre	zigen Stand	Bitte konkretisieren Sie Beschäftigte ort:
5 - 24 25 - 49 50 - 99 100 - 199 mehr als 200 	Beschäftigte Beschäftigte Beschäftigte Beschäftigte Beschäftigte amen am jetz	zigen Stand	Bitte konkretisieren Sie Beschäftigte ort:
	Getranke  Getranke  den Hauptab  aland und Märk  men an diesen  Eine Filiale	Gerunke  Gerunke  Backwaren  Ges  Deutsch  aland und Märkte innerhalb &  men an dieser Adresse:  Eine unah  Eine Filiale eines ausländis	den Hauptabsatzmarkt, in dem Ihr  Nur regionale Gesamtdeutschen Deutschland und EG aland und Märkte innerhalb & ausserhalb  men an dieser Adresse:  Eine unabhängige Einz Eine Filiale eines nationalen Unternet

U. Wie	eiche der Eder	folgenden Mö	glichkeit	en gibt :	am besten	Ihre aktu	elle Umsa	tzstrategie
*****	der.							te einmai ankreuzen
					t	Stetlges Umsat gressives Umsat	reduzieren vermeiden beibehalten zwachstum zwachstum	
						Den Markt		
7. Wel für	lche der f die näch:	folgenden Mög sten 3 - 5 Jahro	lichkeite als Pric	en sehen Orität an	Sie in Ihi	er Untern		
			Mit besteh	enden Prod	nkten in hectel	nenden Märkten		e einmai ankreuzen)
			I.		Produkten in	neue Mârkte ez (z.B. in andere )	pandieren	
			]	Neue Produ		ende Märkte en	- 1	
						neue Märkte en (z.B. andere I	twickeln	
8. Bit den	te betrac Grad Ih	hten Sie die fol erer Zustimmu	genden ng dar:	unterne	hmerisch	en Ziele un	d stellen S	 Sie
		al in jeder Reibe ank		Starke	Zustimmu	Stimme weder	Zu	Strikte
Γ		ewinne über längere		Zustimmu	18 203.1121.00 19 203.1121.00	poch lehne a	Ablebnun	Ablehnung
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	CAN ZIT ISU	ige Verbesserung der			<u> </u>			
			tz erhöhen					
		Marktanteil v	é.					
	Ku	rzfristig hohe Gewin	ne machen					
9. Für	· · wie wicl	htig erachten S		~				
pla	nung:	htig erachten S	ote ate 10	lgenden	Aktivität	en in Ihrer	Unternel	imens-
	(Bitte in	jeder Reihe einmat an	kreuzen)	Sehr wichtig	Wichtig	Weder wichtig noch unwichtig	Unwichtig	Võllig unwichtig
		Marketing	Planung					
		Marktfo	orschung [					
		Milbewerberbeob (Market Inte	fligence) L					
	ı	Übergeordnete Unternehmenszie	formale le setzen					
		Detallilerte Strate Ihr Unternehmen en	eglen für twickeln					
		Detailierte Strate den Europäischen markt en	Binnen- L					
10. Bit	tte deute	n Sie mit Hilfe	der Skal	la an w	ioviala Va			
VOI	n Ihrem(	n) Produkt(en)	und/od	er Servi	ce angres icairir <b>V</b> ()	rochen füt	ı ım Mark	it sich
	Spricht	nur Spricht i						
	eine sehr spezielle G	ruppe 1/4 der Ko	-		t ungefähr er Konsumenten	Spricht unge 3/4 der Konsut		ssenprodukt i jederman
l	von Konsum	enten an lm Ma	rktan		farkt en	s Im Markt		nspricht
							1	

11. Bitte stellen Sie dar, in w Kanäle vertrieben werde	elchem Umfa n:	ing Ihre l	Produkte durci	h die folgei	nden
(Bitte einmal in jed	ler Reihe ankreuzei	) Alle	Vielzahl	Finigo	Wains
Eigene R Restaurat Regionale Regionale Nationale Nationale Europäische	Eigene Läd estaurationsbetrie Läden am O ionsbetriebe am O Einzelhandelskette Einzelhandelskette Einzelhandelskette Restaurationskette Einzelhandelskette Einzelhandelskette Einzelhandelskette Einzelhandelskette Einzelhandelskette Einzelhandelskette	en	Vielzahl	Einige	Keine
12. Die Qualität Ihrer Haupt			ten beschriebe	n werden a	 als:
	Sehr hoch	Hoch	Durchschnittlich	Niedrig	Sehr niedrig
(Bitte einmal ankreuzen					
13. Bitte schätzen Sie für Ihr( stattgefunden hat:	e) Hauptprod	dukt(e), v	vann die letzte	Produktin	novation
(Bltte einmal ankreuzen)	Weniger als 1 Jahr	1 · 3 Jahre	4 - 6 Jahre	7 - 10 Jahre	Mehr als 10 Jahre
14. Welche der aufgeführten M situation Ihres/Ihrer Haup	Töglichkeiten produkts/pr	entspric	ht der Umsatz m zutreffendst	- bzw. Nac en:	chfrage -
(Bitte einmal ankreuzen)	Mittleres Um Höheres Un Hohes Un	satzvolume nsatzvolum nsatzvolum	n aber schnell steig n und schnell steig en und stetig steig en und gleichbleib zvolumen und fall	ende Nachfra ende Nachfra ende Nachfra	ige
15. Welche der folgenden Mögl produkts/produkte im relev	ichkeiten bes anten Markt	schreibt o am zutr	len Preis Ihrer effendsten:	/Ihres Hau	pt-
	Sehr hoch	Hoch 1	Durchschnittlich	Niedrig	Sehr niedrig
(Bitte einmai ankreuzen)					

10	. In welchem Ausmass aufgeteilt:	wird Ihr Wer	bebudget auf di	e folgend	en Werb	eaktivit	äten
	aurgetent:	(Bitte in jeder Reibe	einmal ankreuzen)	Alle	Vielzahl		
		Anzeigen	in örtlichen Zeitungen	1	7 10 12 11 1	Emige	Kein
		t .	nationalen Zeitungen			<b>  </b>	<u> </u>
			Lokale Radiowerbung	<del>  </del>	<u> </u>		<u>_</u>
			ournalen, Zeitschriften				
		, rescribert to 30					
		]	TV Werbung Broschüren an Handel				
			icfwerbung (Mailings)				
		Werhun	a durch Grossburds				
			g durch Grosskunden (z.B. Einzelhandelskeiten)				
			Poster/Plakate				
		•	ür Kunden im Handel				
		I .	reize für Verbraucher				
		Verkaufs	stände/Problerstände				
			Handelsreisende				<b> -</b>
			Handelsagenturen				<b> </b>
		Messen & Ausstell	ungen (z.B. ANUGA)				-
·						LJ	<u> </u>
1'	7. Bitte beurteilen Sie und deuten Sie an.	die folgende	n wettbewerbs	bestimm	enden F	oktoro	
	und deuten Sie an,	wie stark Sie	darauf reagie	ren:	chach P	antuie	ս սու
	(Bitte in jeder Reihe einmal ankr	tuzen)	. Rengiere	leagiere	Reagiere in	Dane's	
	Rivalität von Unternehmen	in Deutschland	sehr stark zier	nlich stark ge	ringem Ausma:	Reagie nic	
	des gleichen Wirtschaftssekto	re Deutschianu			L]		
	5	in der EG	]				
	Gefahr durch Neu-Einsteiger	von Deutschland					╡
	in den Markt	von der EG				<u> </u>	
					<u></u> _		]
	Gefahr durch Ersatzprodukte	aus Deutschland	<b>╎└──</b> ┘  └				
		von der EG					$\neg$
	Verhandlungsmacht	in Deutschland	Ī			<u> </u>	╡
	von Lieferanten	in der EG	<del></del>	<del></del>		<u> </u>	
İ			╣╞══╣ <b>╴</b> ╘		<u></u>		
	Verhandlungsmacht Ihrer Kunden	in Deutschland	<b>╎└</b> ▃┙				
Į	TOTAL TENEDUCTI	in der EG					_
• - •						_	
18.	Bitte betrachten Sie diese Ihr Unternehn	die unten auf	geführten Fak	toren un	d haurta	ilon Si	
	diese Ihr Unternehn	nen mit einen	Wetthewerhs	vorteil i	u beurte m Markt	HER OF	e, ud
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Ų	Bitte in jeder Reihe einmal ankrei	IZCD) Starke Wettbew vorteile	erbs- Einige Wettbewer vorteile	1	Vettbewerbs- k		
	Niedriger Preis des Produ	ktes	70146.16		rteile	vorteil	
	Einzigartigkeit des Produ	ktes	<del></del>	<u> </u>			
	Hohe Qualität des Produ		<u> </u>			<u></u>	
	Produktdes		<del>  </del>	<u> </u>		<u></u>	_]
	Prompte Belieferung (Logis		<del>  </del>	<u> </u>			_]
	Gut eingeführter Markenns		<del>  </del>	<u></u>			_
	Kundenbetreuung nach K		<u> </u>	<u> </u>			<u>_</u>
	Vielfalt der Produktgrup		<del>  </del>	<u> </u>			┚
	Distributionskan		<del>  </del>	<u> </u>			
	Zahlungsbedingun	1 ———	<u> </u>	<u> </u>			]
	Werbung/Verkaufsförder		<del> </del>	<u> </u>			⊒

schätzen Sie die momentane Auslast	skapazität Ihres Unternehmens und
and the momentume Austasi	weniger als 50%
(Bitte einmal	
(вите ешим	
	<b>81-100%</b>
20. Planen Sie Ihre Produktionskapazit	ät auszuweiten oder haben Sie in letzten
Zeit die Kapazität Ihres Unternehm	en erweitert? (Blite einmal ankreuzen)
Nein (Bitte zu F	rage 22) Ja (Bitte zu Frage 21)
	rage 22) Ja (Bitte zu Frage 21)
21. Welches waren die Hauptgründe, Ih	re Produktionskapazität zu orweitern.
(Bitte in jeder Reihe eimal ankreuzen) seh	wichtig wichtig noch unwichtle voilig
Ansteigende Nachfrage auf regionaler Ebene	unwichtig unwichtig
Anstelgende Nachfrage	;
auf nationaler Ebene	]
Neue Aufträge von Grosskunden (z.B. Supermarktketten etc.)	
Erwartete anstelgende Nachfroge	
aus anderen EG-Ländern  Erwartete anstelgende Nachfrage	ㅓ 닏 닏 닏
aus Länder ausserhalb der EG	
Investition in neue Produktionstechniken und Maschinen nach EG-Standard	
22. Bitte beschreiben Sie Ihre Produktion	smethode: (Bitte einmal ankreuzen)
bochgradig handwerklich bandwerkli	Gleicheewicht
handwerklich bandwerkli	ch zwischen Handwerk automatisiert hochgradig und Automatisierung automatisiert
23. Wie alt, ungefähr, ist der Grossteil Ih	rar Droduktionar to acco
, and all division in	(Bitte einmal ankreuzen)
	bis zu 1 Jahr alt
	zwischen 1-4 Jahren alt
	zwischen 5-9 Jahren alt zwischen 10-20 Jahren alt
	über 20 Jahre alt
24. Wann haben Sie zum letzten Mal tiefg	reifend Ihre Produktionstechnik
(Prozessinnovation) verändert:	(Bitte einmal ankreuzen)
	innerbalb des letzten Jahres
	1-4 Jahre zurück
	5-9 Jahre zurück 10-20 Jahre zurück
	über 20 Jahre zurück

25. Im Hinbli ungefähr	ck auf alle Mitarbe wieviele von Ihnen	eiter Ihres Unterneh in den folgenden Be	mens, bitte schä	tzen Sie
_			anagement	
		Wissenschaftlich	L	% %
		Hochqualifizie	rt-manuell	<del></del>
			walifiziert/	% %
		Administrativ/V	erwaltung/	
		,	Sekretariat	<del></del> _
				0 %
26. Im Hinblich diese besch	auf die letzte Pro rreiben:	dukt-Neuentwicklur	g, wie würden S	
	<u> </u>			(Bitte einmal ankreuzen)
		Produkte neu für Untern	Weltneuheit	]
	Verbe	esserung der Eigenschaften		9 I
	ļ	Produkte zur Verbreite		\$ I I
		Geringfügige Verbesserung i		1 1 1
	Verbes	serung bestebender Produk	te zur Kostensenkung	
				J <u>  </u>
27. Wurde dies	se Produktentwick	lung <u>vornehmlich</u> vo	rangetrieben di	L
			angeti lebeli di	uren:
			<u> </u>	urcn: (Bitte einmal ankreuzen)
		Eigene Unter	nehmensforschung	
		Eigene Unter oder Zusammenarbeit n	nehmensforschung nit	
		Eigene Unter oder Zusammenarbeit n Lieferanten	nehmensforschung	
		Eigene Unter oder Zusammenarbeit n Lieferanten Universitäter Andere F	nehmensforschung nit und/oder Kunden n/Fachhochschulen orschungsinstitute	
		Eigene Unter oder Zusammenarbeit n Lieferanten Universitätei Andere F Handelsagent	nehmensforschung nit und/oder Kunden n/Fachhochschulen orschungsinstitute uren/Distributoren	
		Eigene Unter oder Zusammenarbeit n Lieferanten Universitätet Andere F Handelsagent Handelskamm	nehmensforschung uit und/oder Kunden d/Fachhochschulen orschungsinstitute uren/Distributoren ern/Vereinigungen	
		Eigene Unter oder Zusammenarbeit n Lieferanten Universitäter Andere F Handelsagente Handelskamm	nehmensforschung nit und/oder Kunden n/Fachhochschulen forschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen	(Bitte einmal ankreuzen)
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 28. Wie stark al	bhängig sind Sie ve	Eigene Unter oder Zusammenarbeit n Lieferanten Universitäter Andere F Handelsagente Handelskamm	nehmensforschung nit und/oder Kunden n/Fachhochschulen orschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen pitalquellen für	(Bitte einmal ankreuzen)
 28. Wie stark al	ohängig sind Sie vo ig: (Bitte in jeder Reihe eint Geschäftsführerdarlehen an	Eigene Unter oder Zusammenarbeit n Lieferanten Universitäten Andere F Handelsagente Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Unternehmen	nehmensforschung nit und/oder Kunden n/Fachhochschulen forschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen pitalquellen für	(Bitte einmal ankreuzen)
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 28. Wie stark al	ohängig sind Sie vo ig: (Bitte in jeder Reihe eint Geschäftsführerdarlehen an Einbeha	Eigene Unter oder Zusammenarbeit n Lieferanten Universitäten Andere F Handelsagente Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Handelskamm Andere F Unternehmen	nehmensforschung nit und/oder Kunden n/Fachhochschulen forschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen pitalquellen für	(Bitte einmal ankreuzen)
 28. Wie stark al	ohängig sind Sie vo ig: (Bitte in jeder Reihe eint Geschäftsführerdarlehen an Einbeha	Eigene Unter  oder Zusammenarbeit n  Lieferanten Universitäten Andere F Handelsagente Handelskamm Andere F Handels	nehmensforschung nit und/oder Kunden n/Fachhochschulen forschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen pitalquellen für	(Bitte einmal ankreuzen)
 28. Wie stark al	Dhängig sind Sie vong:  (Bitte in jeder Reihe eint Geschäftsführerdarlehen ar Einbeha Bankda Darlehen ausserhalb des Anteilssch	Eigene Unter oder Zusammenarbeit n Lieferanten Universitäten Andere F Handelsagente Handelskamm Andere F Handelska	nehmensforschung nit und/oder Kunden n/Fachhochschulen forschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen pitalquellen für	(Bitte einmal ankreuzen)
 28. Wie stark al	ohängig sind Sie vong: (Bitte in jeder Reihe eint Geschäftsführerdarlehen an Einbeha Bankda Darlehen ausserhalb des Anteilssch	Eigene Unter  oder Zusammenarbeit n  Lieferanten Universitäter Andere F Handelsagente Handelskamm Andere F Handels	nehmensforschung nit und/oder Kunden n/Fachhochschulen forschungsinstitute uren/Distributoren ern/Vereinigungen dere Unternehmen pitalquellen für	(Bitte einmal ankreuzen)

29. Für wie wichtig halten Sie die den Waren-Einkauf in Ihrem	folgende Unternel	en Faktore imen:	en bei Entsc	heidungen	über
(Bitte in Jeder Reihe einmal ankreuze	schr en) wichtig	wichtig	weder wichtig noch unwichtig		villig unwichtig
Pro	els .				
Qualit	āt				
Zahlungsbedingung					
Zuverlässigkeit der Lieferante					
Langfristige Beziehunge zu Lieferante	:::				
Verfügbarkeit von Materialie & Produkte					
Entfernung zu Zulieferer	1 ——				
Qualität der Kundenbetreuun nach erfolgtem Kau					
Auswahl an Materialien/Produkte					
Verkaufsanreize/Nachlässe/Rabatte Ausreichende Information durch	1 1 1				
kompetentes Verkaufspersonal Verbesserte Einkaufsmöglichkeiter	1				
in anderen EG-Ländere	ـــا ك				
30. Bitte stellen Sie dar, wie sich i in Ihrem Unternehmen veränd	n den let: dert hat:	zten 3 Jah	ren die Mit	arbeiterza	hl
	ehr stark ergrössert	ziemlich vergrössert	unverândert	ziemlich	sehr stark
(Bitte einmal ankreuzen)				verkleinert	verkleinert
31. In welchem Umfang änderte si	– – – – – ch in der	 Letzten 3	Inhran dia	Decelulation	
Mitarbeiter in Ihrem Unternel	ımen:	· ictzten J	Jani en gje	Produktiv	itat pro
	stark st	ieg schwach	unverändert	ging schwach	ging stark
(Bitte einmal ankreuzen)		an .	[]	zurück	zurück
32. Bitte stellen Sie dar, für wie wie	ohtic St-				
die folgenden Managementfähi	chug Sie akeiten n	es in inre	m Unterneh	men halte	n,
	epr pope				
thing all all all all all all all all all al		Hobe Priorităt	Niedrige S Priorität	ehr niedrige Priorität	nwichtig
Entscheidungsfindung					
Problemlösungen offerieren					
Mitarbeiterkontrolle/-bewertung Führungsfähigkeiten					
Delegieren von Aufgaben					
Kommunikation					
Zeit-Management	=={	<u> </u>			
Besprechungen leiten	=={				

	Sehr hohe	Hohe	Niedrige	Sehr niedrige	
(Bitte einmal in Jeder Reihe ankreuzen)	Priorität	Priorität	Prioritiit	Priorität	Unwichtig
Lagerung von Rohmaterialien					
Umgang mit in Verarbeitung befindlichen Produkten					-
Lagerung der fertigen Produkte			<del>  </del>	<del>  </del>	<u> </u>
Distribution mit eigenen Fahrzeugen					<u> </u>
Distribution durch Speditionen		<del></del>	<u> </u>	<u> </u>	<u> </u>
Distribution durch Grosshandel		<del></del>	<u> </u>	<u></u> _	<u></u>
Distribution durch Fahrzeuge			<u></u>		
von Grosskunden					
Abfallbeseitigung					
Untersuchung, sowie für weit versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens	eren Kontal ie diese Seite	kt. Es wird e ausfüller	l Ihnen hi L. die Vert	rauliahlasi	
versichert, dass, auch wenn S dieser Untersuchung auf kein	eren Kontal ie diese Seite	kt. Es wird e ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
versichert, dass, auch wenn S dieser Untersuchung auf kein  Name des Unternehmens	eren Kontal ie diese Seite	kt. Es wird e ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens:  Adresse:	eren Kontal ie diese Seite	kt. Es wirce ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
versichert, dass, auch wenn S dieser Untersuchung auf kein  Name des Unternehmens	eren Kontal ie diese Seite	kt. Es wird e ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens:  Adresse:	eren Kontal ie diese Seite	kt. Es wirce ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
Versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens:  Adresse:  Telefon:	eren Kontal ie diese Seite	kt. Es wirce ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
Versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens:  Adresse:  Telefon:  Name des Auskunftgebenden:  Position im Unternehmen:	eren Kontal ie diese Seite en Fall nega	kt. Es wirce ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
Versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens:  Adresse:  Telefon:  Name des Auskunftgebenden:  Position im Unternehmen:  Ich würde gerne in Konta	eren Kontalie diese Seite en Fall nega	kt. Es wirce ausfüller	l Ihnen hi L. die Vert	ermit ausdi	
Versichert, dass, auch wenn S dieser Untersuchung auf kein Name des Unternehmens:  Adresse:  Telefon:  Name des Auskunftgebenden:  Position im Unternehmen:	eren Kontal ie diese Seite en Fall nega	kt. Es wirce ausfüller tiv beeinf	I Ihnen hi	ermit ausdi	

33. Bitte deuten Sie im Bezug auf den Umgang mit Rohmaterialien, Fertigprodukten

Nochmals herzlichen Dank für Ihre Bemühungen!

#### Appendix 2

# Graphic Illustration of Results Survey 1

Semantic Differentials for all Variables of Questions 8 - 10

# Index:

1: not at all important

2: not very important

3: neither important nor unimportant

4: quite important

5: very important

German companies that import

UK companies that import

German companies that do not import

UK companies that do not import

German companies that export

UK companies that export

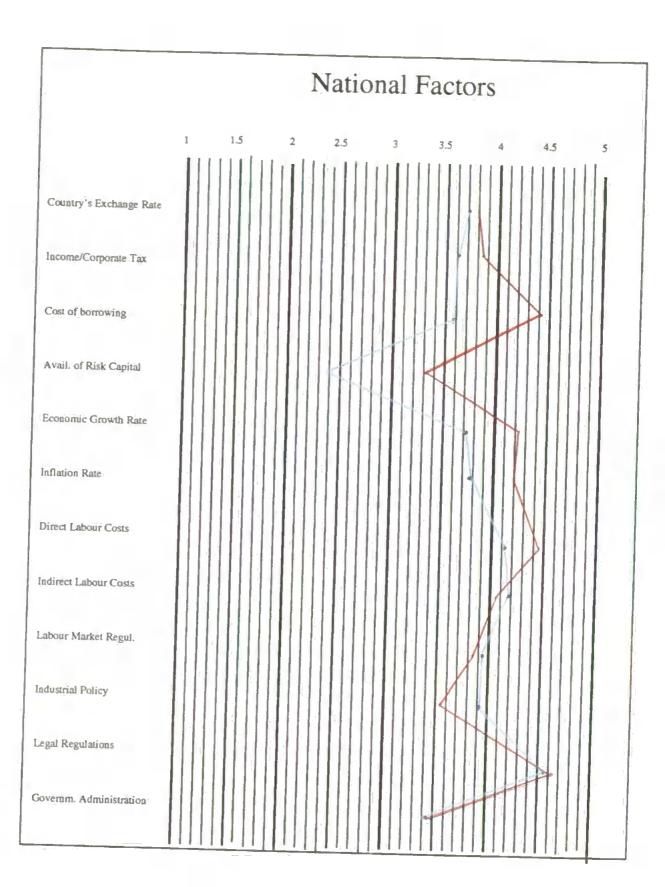
German companies that do not export

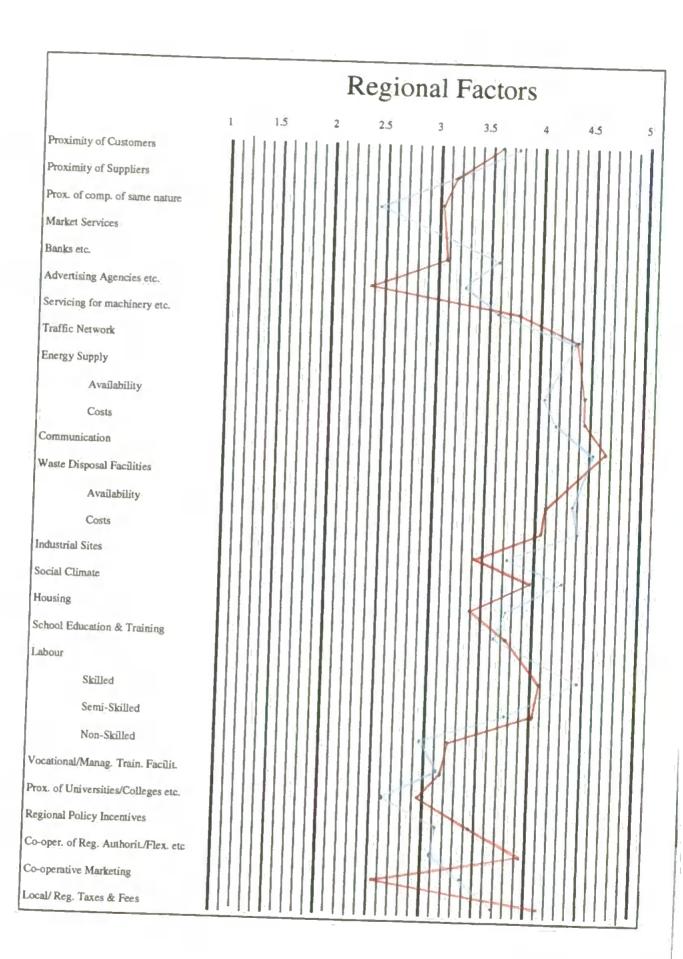
UK companies that do not export

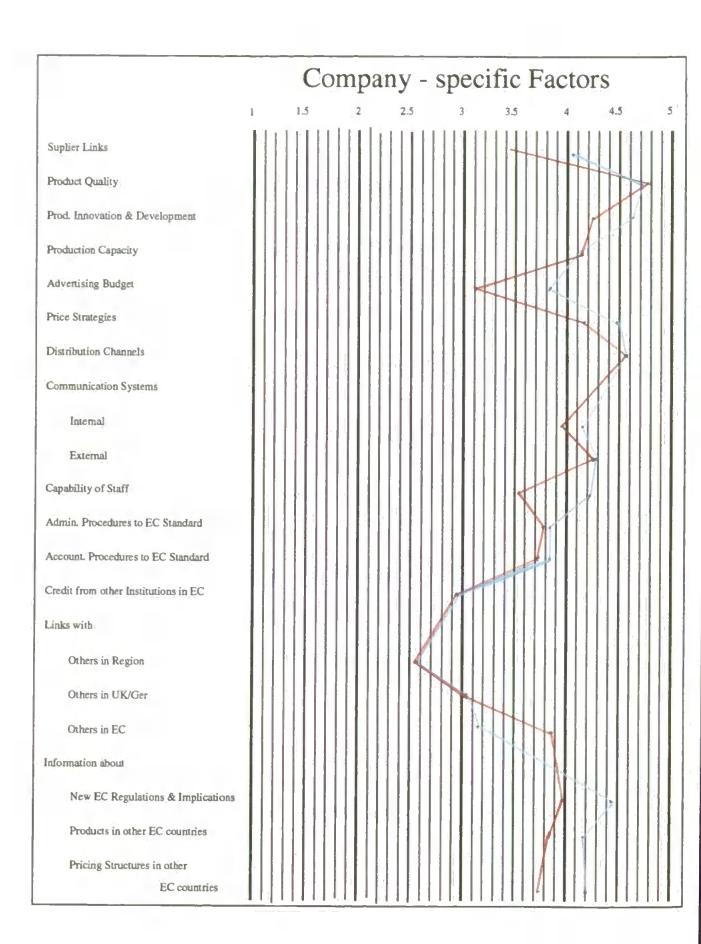
UK companies that do not export

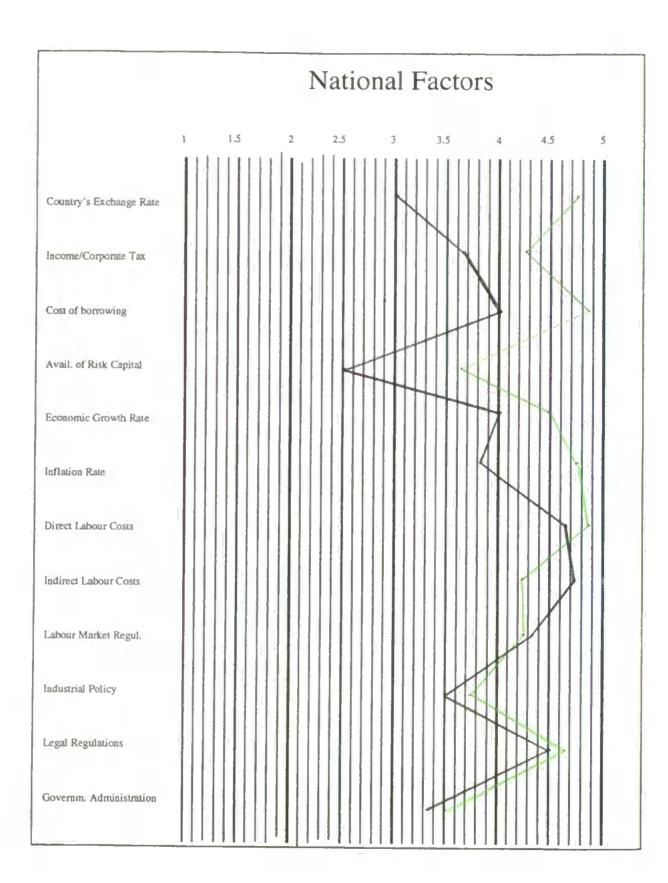
UK companies with intention to export

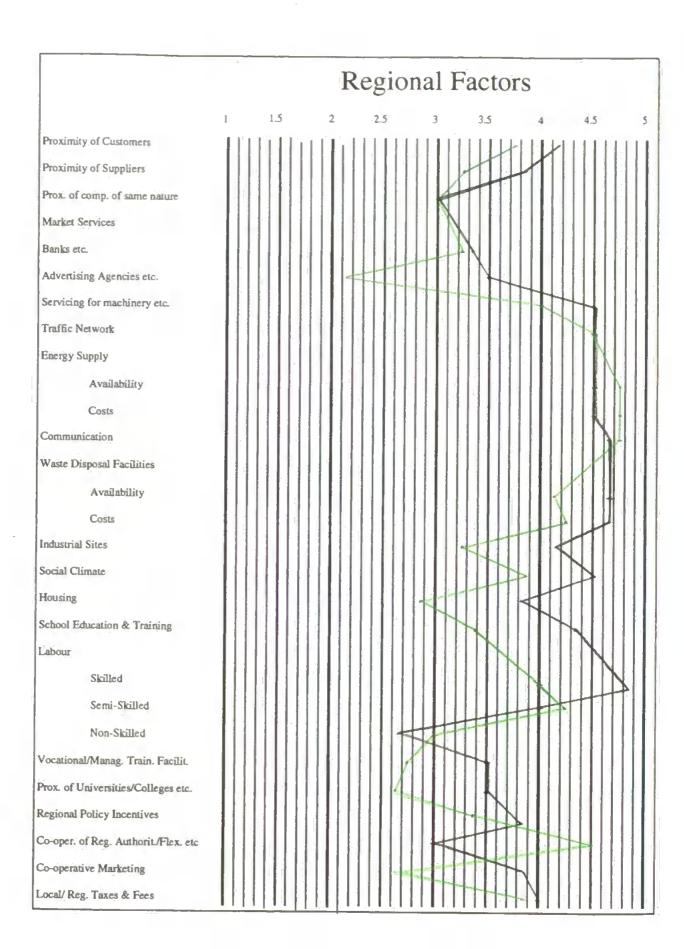
UK companies with intention to export

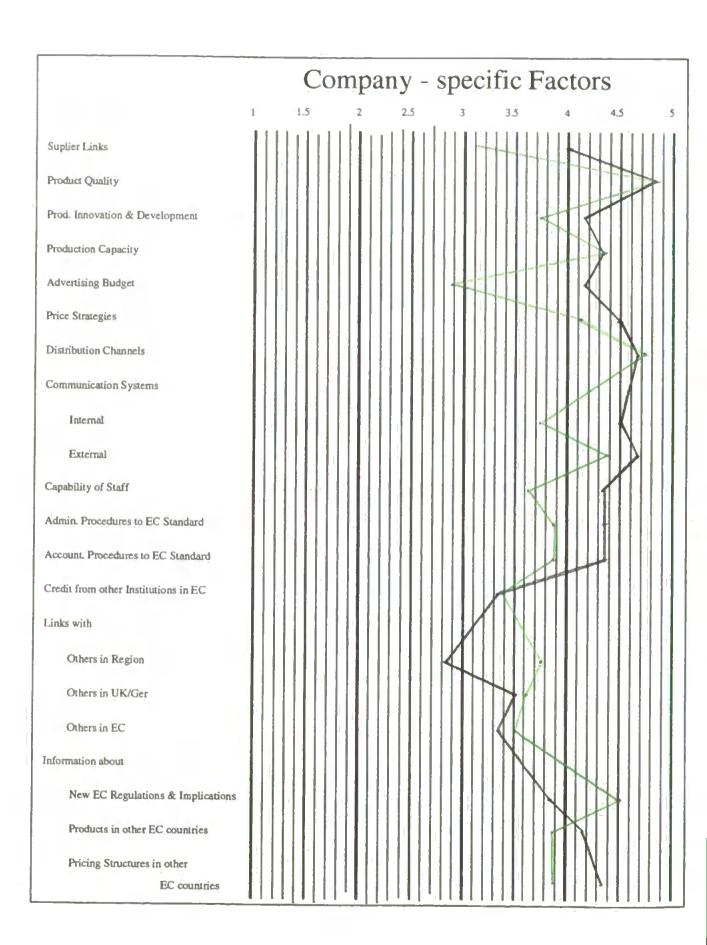


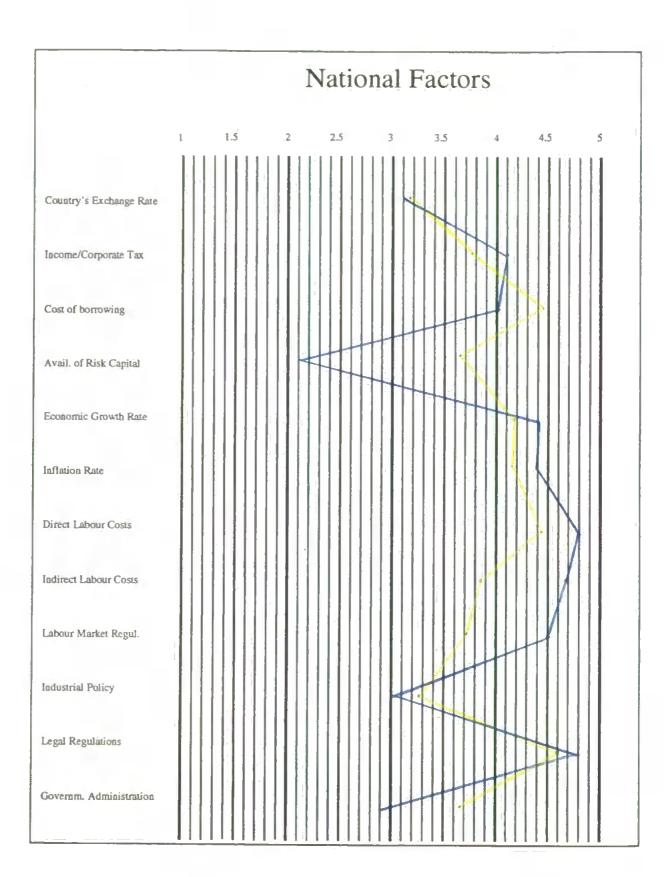


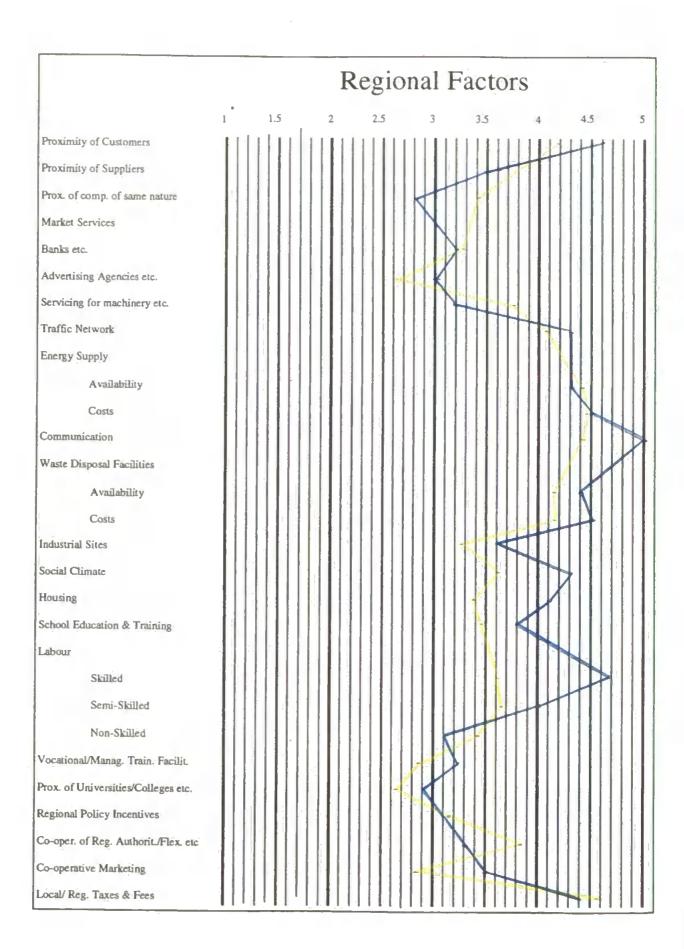


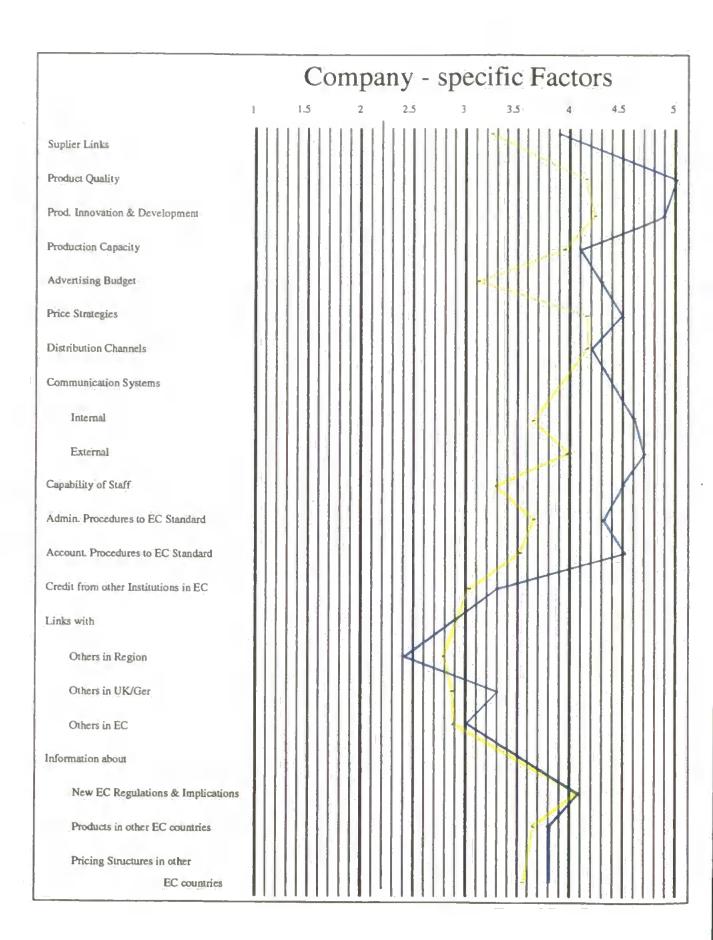


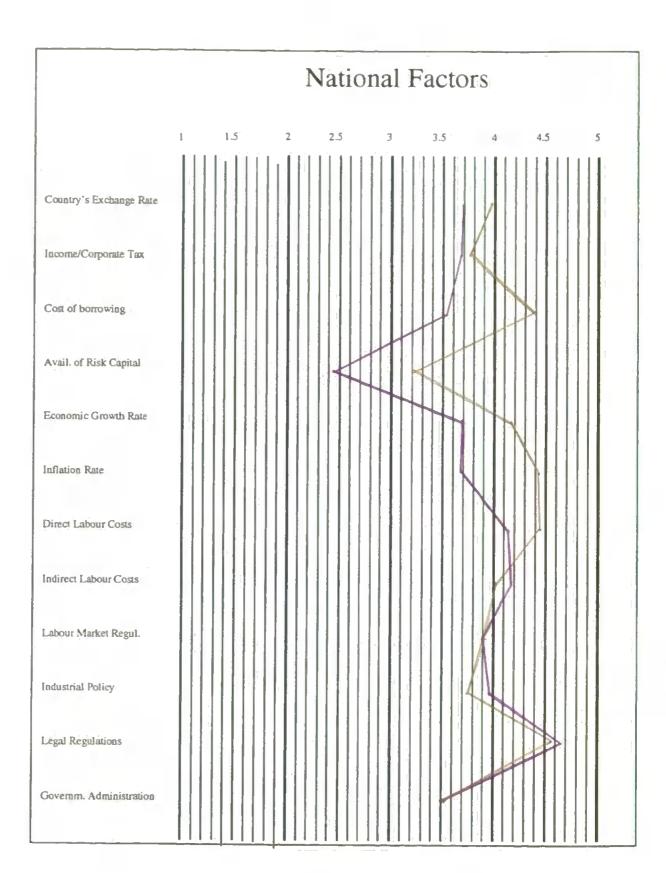


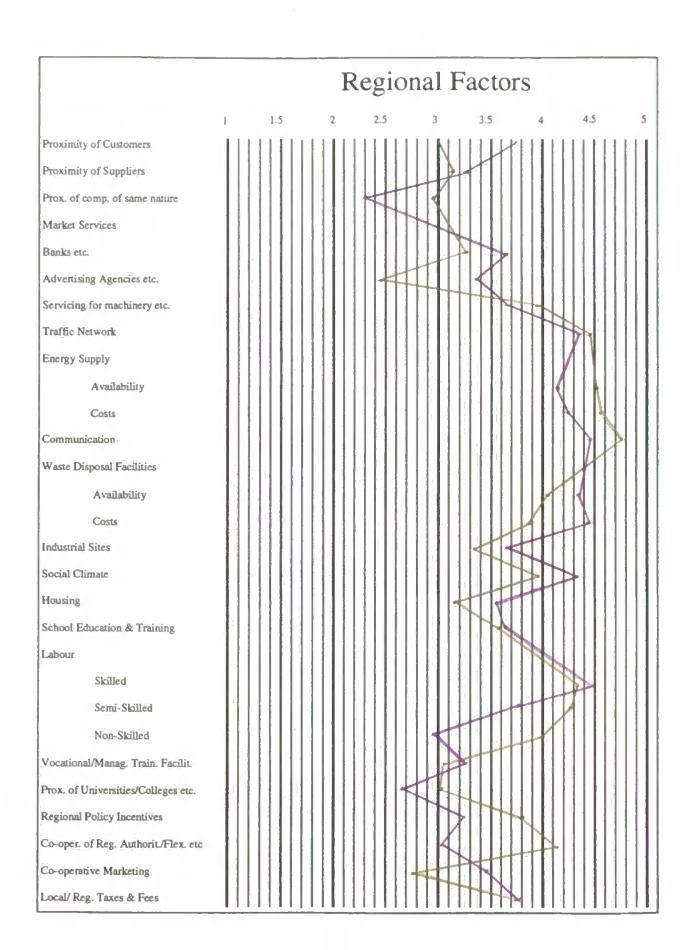


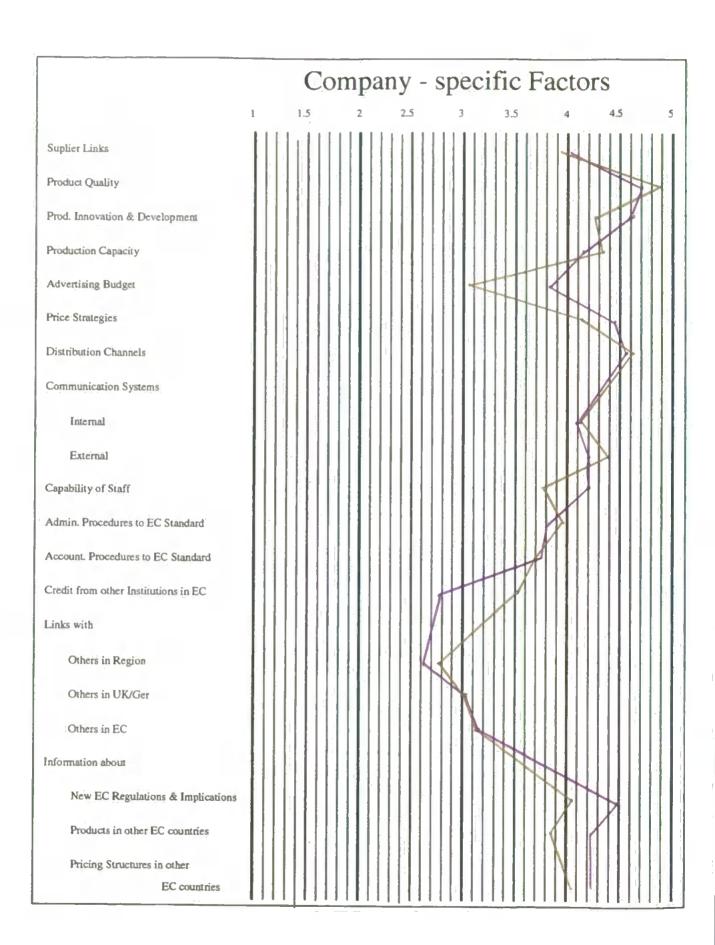


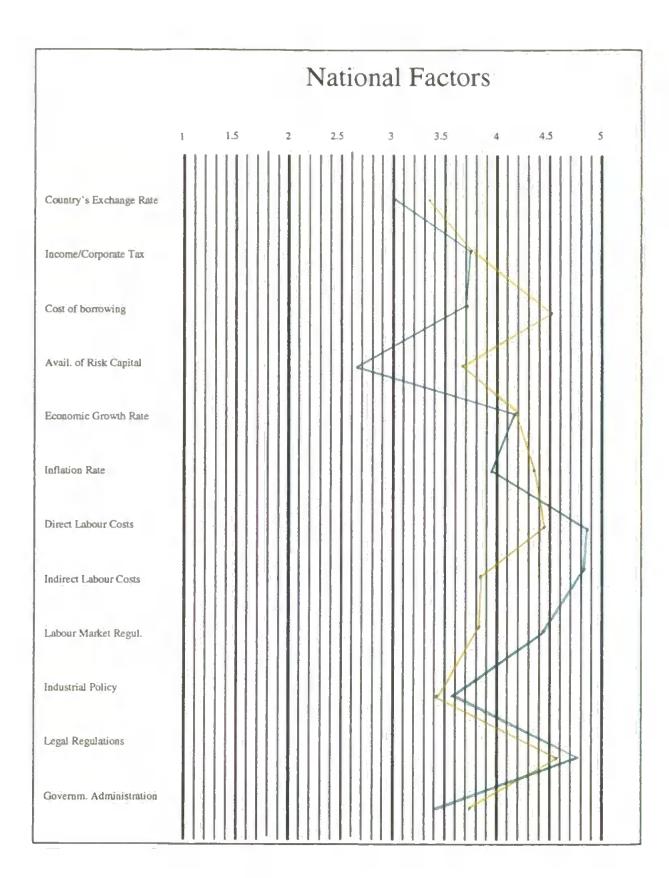


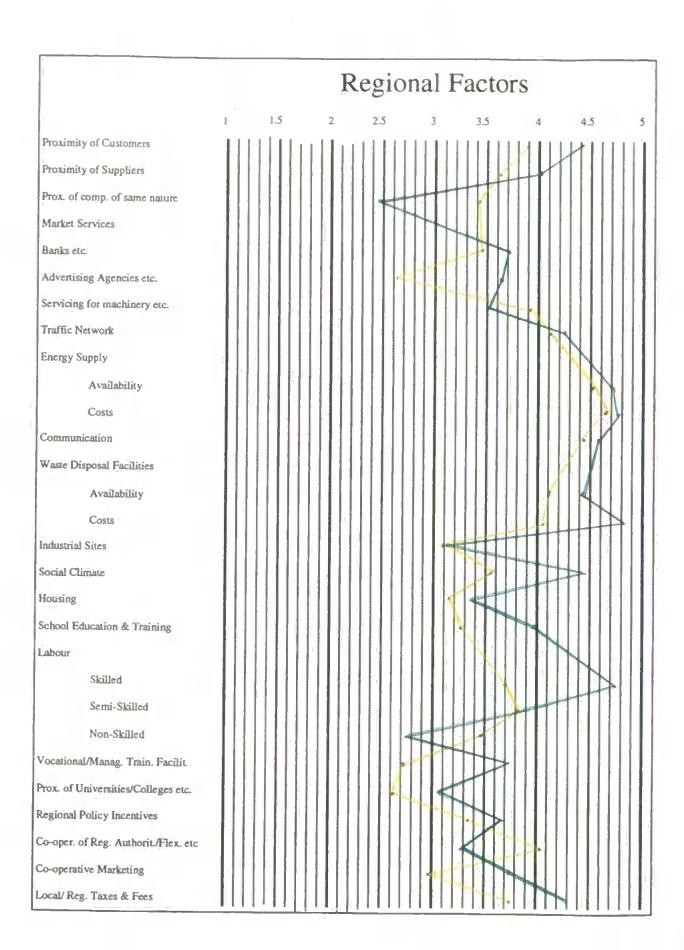


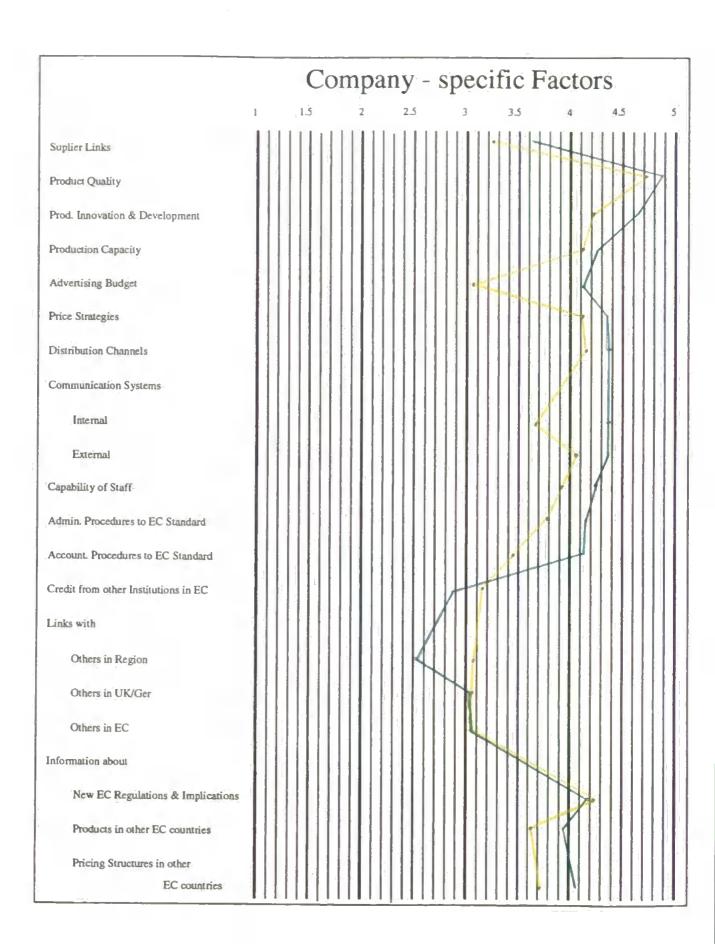












#### Appendix 3

Output of Multivariate Analysis of Variance Test (MANOVA) for Survey 1

Test for all Variables of Questions 8, 9 & 10

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3.04159
                                                                                 12.00
12.00
12.00
                                                                                                   151.00
151.00
151.00
                                                                                                                                .001
.001
.001
   Roys
  Univariate F-tests with (1,162) D. F.
  Variable Sypoth. SS Error SS Sypoth. MS Error MS
                                                                                                                              F Sig. of F
                           .85546 285.82946
.11086 209.68648
9.16410 209.69824
31.82727 258.07354
.37416 113.44339
1.30482 151.71917
.09955 128.13603
7.01509 174.34621
3.92260 201.28508
.02870 197.95693
.56677 58.52077
                                                                      .85546
.11086
9.16410
31.82727
.37416
1.30482
.09965
7.01509
3.92260
                                                                                              1.77055
1.29436
1.29443
1.59305
.70027
.93654
.79096
1.07621
                                                                                                                  .48316
.08565
7.07962
19.97887
.53431
1.39324
.12599
                                                                                                                                                 .488
.770
.009
.000
.466
.240
.723
.012
.077
  Q8B
QBC
QBD
  Q82
Q87
Q80
Q83
Q81
Q83
                                                                                                                     .12599
6.51832
3.15702
.02349
1.56896
2.34801
                                                                                             1.24250
1.22196
.36124
1.28525
                                                                         .02870
.56677
3.01779
                             .56677 58.52077
3.01779 208.21115
  OSK
  Q8L
* * AMALTSIS OF VARIANCE -- DESIGN 1 * *
  EFFECT .. CONSTANT Multivariate Tests of Significance (S = 1, M = 5 , H = 74 1/2)
                                     Value Approx. F Hypoth. DF Error DF Sig. of F
                               .98381 764.54591
60.75862 764.54591
.01619 764.54591
.98381
  Pillais
                                                                                 12.00
                                                                                                     151.00
                                                                                                                               .000
  Hotellings
  Wilks
  Roys
  Univariate F-tests with (1,162) D. F.
  Variable Sypoth, 83 Error 88 Sypoth, MS Error MS
                                                                                                                               F Sig. of F
                      1206.22684 286.82946 1206.22684 1431.41035 209.68648 1431.41035 1656.31967 209.68648 1431.41035 1656.31967 2931.48039 258.07354 7931.48039 1664.12958 1731.44339 1664.12958 1731.92168 1531.71917 1731.92168 1965.39076 1741.31894 1741.32694 1586.08072 201.28508 1566.08072 1216.54397 197.95593 1218.54397 1229.94168 1142.34629 208.21115 1142.34629
                                                                                              1.77055 681.27154
1.29436 1105.88188
1.29443 1279.57098
1.59305 498.08989
7.70027 2376.41878
.93654 1830.06086
.79096 2484.80694
  Q8A
Q6B
Q6C
Q8D
Q8E
Q8F
Q8F
Q8F
Q8F
Q8F
Q8F
                                                                                                                                                 -000
                                                                                                                                                  -000
                                                                                                                                                  .000
                                                                                                                                                  .000
                                                                                             1.07621 1618.00859
1.07621 1618.00859
1.24250 1276.52322
1.22196 997.20742
.36124 5896.20634
1.28525 888.80976
                                                                                                                                                 -000
-000
-000
  OBK
MAKOVA Q9A Q9B Q9C Q9D Q9E Q9F Q9G Q9E Q9I Q9J Q9K Q9L Q9H Q9D Q9P Q9Q Q9R Q9S Q9T Q9U Q9W Q9X Q9Y (1,2) Q6A (1,2)
/PRIST CELLIEFO.
* * AMALYSIS OF VARIANCE -- DESIGN 1 * *
  Cell Means and Standard Deviations
  Variable .. Q9A
FACTOR
                                                          PROXIMITY OF CUSTOMERS

Mean Std. Dev.
                                            CODE
                                   UX
     Q6A
Q6A
                                                                                      3.000
4.196
                                                                                                            1.303
   Q11
Q6A
Q6A
                                   GERMAN
                                                                                       3.765
                                                                                                           1.340
                                                                                                                                        68
                                                                                       4.750
                                                                                                            .463
                                                                                                                                      8
166
  For entire sample
 Variable .. Q9B
FACTOR
                                                          PROXIMITY OF SUPPLIERS

Hean Std. Dev.
                                            CODE
                                                                                                                                         ы
                                  UK
     Q6A
Q6A
                                                  1 2
                                                                                      3.118
3.571
   011
                                  GERMAN
 Q6A
Q6A
Por entire sample
                                                                                      3.294
                                                                                                                                        68
                                                                                      3.750
                                                                                                            1.165
                                                                                                                                      166
 Variable .. Q9C
                                                         PROXIMITY OF COMPAN. OF SAME NATURE Mean Std. Dev.
                                            CODE
  Q11
Q6A
Q6A
                                  UK
                                                                                      2.971
3.464
                                                  1
  011
                                  GERMAN
    Q6A
Q6A
                                                 1
                                                                                                                                       68
                                                                                      3.000
                                                                                                            1.309
For entire sample
                                                                                                                                     166
```

\* \* AMALYSIS OF VARIANCE -- DESIGN 1 \* \*

- A 80 *-*

· · ANALYSIS O	P VADTANCE .	- DESIGN 1 · ·		
		iations (COST.)		
Variable Q9: FACTOR		MARKET SERVICES: BANG	M ETC Std. Dev.	п
Q11 Q6A	UK .			
Q6A Q11	. 1 GERHAN	3.235 3.286	1.304 1.371	34 56
96A 96A	1 2	3.662 3.750	1.016 .707	68 8
For entire sam	ple	3.452	1.204	166
Variable Q9	E CODE	MARKET SERVICES: ADV	ERTISING AGENC	IRS ETC
Q11	UK COLL	P940	aca. Dav.	×
ABD ABD	1 2	2.441 2.589	1.330 1.247	34 56
Q11 Q6A	GERMAN 1	3.382	1.107	68
Q6A For entire sam	ple 2	2.750 2.892	1.035 1.260	8 166
Variable Q91	• •	MARKET SERVICES: SERV	TICING POR MAC	HIMERY
PACTOR	CODE	Kean		N
Q11 Q6A Q6A	UX 1 2	3.971 3.750	1.058	34
Q11 Q6A	GERHAN 1	3.662	1.340	56 68
Q6A For entire same	2	2.875 3.717	1.553 1.264	8 166
· · AMALYSIS O	VARIANCE -	DESIGN 1		
Cell Means and Variable Q90		lations (COST.) TRAFFIC RETWORK		
FACTOR	CODE	Kean	Btd. Dev.	H
Q11 Q6A	UK 1	4.471	.825	34
Q5A Q11 Q5A	GERMAN 1	4.054	1.151 .989	56 68
Q6A For entire same	2	4.353 4.250 4.271	.707 1.011	9 166
	· <b>- ·</b> ·			
Variable Q91 FACTOR	CODE	EMERGY SUPPLY: AVAILA Mean		ы
Q11 Q6A	UK 1	4.500	.615	34
Q6A Q11	CHEKKYR 3	4.375	1.001	56
96A 96A	1 2	4.147 4.125	1.096	68 8
For entire same	) )10	4.295	.993	166
Variable Q91	CODE	ENERGY SUPPLY: COSTS	Std. Dev.	ы
Q11	UX .			
Q6A Q6A Q11	1 2 German	4.559 4.446	.561 .952	34 56
Q6A Q6A	1 2	4.235 4.375	1.094 1.061	68 8
For entire samp		4.380	.957	166
• • ANALYSIS OF				
Variable Q9J FACTOR		COMMUNICATION	Std. Dev.	ш
Q11	UK			
Q6A Q6A Q11	1 2 GERMAN	4.735 4.446	.567 .893	34 56
06A 06A	1 2	4.500 5.000	.922	68 6
For entire samp		4.554	.835	166
Variable Q9K		WASTE DISPOSALIAVAIL		
PACTOR Q11	CODE	Kean	Std. Dev.	B
Q6A Q6A	1 2	4.029 4.107	1.058 1.139	34 56
Q11 Q6A	GERMAN .	4.353	1.004	68
Q6A For entire samp	le 2	4.250 4.199	1.035 1.063	8 166
Variable Q9L	• •	WASTE DISPOSAL: COSTS		
PACTOR	CODE	Mean	Std. Dev.	n
Q11 Q6A 06A	UK 1	3.882	1.066	34
06A 011 06A	GERMAN 1	4.107 4.456	1.171 .905	56 68
Q6A For entire samp	2	4.375 4.217	1.061	8 166

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991 8	£61.1	SET.S	eignes enti	
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			ITGGE 20	110
9 <b>9</b> 98	1.261	20.E 20.E	Ę	43Q 43Q
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æ	Brd. Dev.	geeg		
		PROXIMITE OF COLLEGES	16 Q9T ACTOR CODE	
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8	690°T	000.€	ξ	V90
89	\$40.£	₹95.€	τ	<b>43</b> 0
95	SST'T	£68.£	(\$200 <i>01</i> 1)	₹10 <b>₹</b> 90
<b>≯</b> C	1.339	650.€	ī	<b>490</b>
			NO.	110
	SEG. Dev.		ACTOR COLZ	:Z
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99T 8	326.1 1.165	221.E 225.E	tire sample	
89	981.1	200.£	E T	<b>43</b> 0
••			HAMMED	110
95 7E	696. 821.1	176.E 176.E	3	49 <u>0</u>
			NO.	110
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		t KDISTO	TIBLE OF VARIANCE	<b>THY</b>
99T 8	312.1 700.1	278.£ 948.£	tire sample	TO IOI
89	775.	err. £	t	¥90
95	421.1	969.€	CEBROVA 7	TTÖ Vev
řĒ	187.	\$22.4	i.	490
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ø	SEG. DOV.	uesp	ACTOR CODE	
		CELLINE INTE-SUCEAL	#60 e1.	detzev
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991	850.1	181.4	tire sample	TO TOT
8 89	£\$4.	4.625	t T	43 <u>0</u> 43 <u>0</u>
	.,.		MANUELD	110
95	808. 785.£	529.6	ξ	<b>43</b> 0
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H	std. Dev.	CENTING-ROOM	. 2002 CODE	i Turiba
99τ	£61.1	995.6	eigne earld	m
9	690.I	00€.€	5	490
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	DHIRIT	ations (CONT.) SCHOOL EDUCATION & T	icens and Standard Devi 1991., 999	Varial
-		· · I MDISTO	SDRAIRAY TO RISTA	ESTY
991	827. £55.£	161.E	elgmas entil	IB 204
8 89	202.1 327.	000.1	2	ABD
		622.€	I Dereya	119 489
95	782.£	276.6	t	<b>490</b>
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		CALL DE COME		
991	191'1	₹66.€	. eignas entin	TB 704
8	1.165	4.350	S after extende	430 101
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			סא	110
R	Srd. Dav.	UTOR	ACTOR CODE	
		SOCIAL CLIMATE	иер еле	Tel zov
				=
99T	196.1	276.6 523.6	S often entra	40D For ea
8 89	12.19 862.1	748.E	τ	<b>V9</b> 0
8 89	912.1 892.1		RACKERED	TTO
8	862.I	\$26.6 \$06.6 \$40.6		
8 89 95	78£.£ 915.£ 892.£	3,304	ENGOEZO E	110 <b>4</b> 90
8 89 95	78£.£ 915.£ 892.£	3,304	E E T XX	110 430 430 110
8 89 95 PC	522,1 786,1 915,1 862,1	ESTIS JAINTEDUNI GASH 625.6 506.6	2002 CODE TOTOR CODE 1 2 2 3	IALTAV I I LQ A3Q A3Q A1Q I LQ
8 89 95 PC	522,1 786,1 915,1 862,1	ESTIS JAINTEDUNI GASH 625.6 506.6	TO CODS	IALTAV I I LQ A3Q A3Q A1Q I LQ
8 89 95 PC	522,1 786,1 915,1 862,1	Actions (CONT.) INDUSTRIAL SITES Mean 3.324	Ned brabmass has sneed to the same to the	IALTAV I I LQ A3Q A3Q A1Q I LQ

WWW.1010							
Cell Means an Variable 0			(CONT.)	RCENTIV	·a		
FACTOR	CODE			an Std.		Ħ	
011	UK						
Q6A	1		3.7		.978	34	
Q6A Q11	GERKAN		3.1	.96	1.197	56	
Q6A	1		3.2	50	1.320	68	
Q6A For entire sa	menje 3		2.7 3.3	750 119	.886 1.216	8 166	
	•						
Variable 0		COOPE	RATION OF RE	GIONAL A	DTEORITI	ES/FLEX	
PACTOR	CODE			an Std.			
Q11	UK						
Q6A Q6A	1 2		4.1		.913	34	
Q11	CERMAN		3.6		1.069	56	
Q6A Q6A	1 2		3.1 3.1		1.221	68	
For entire sa			3.5		1.126	8 166	
Variable Q			RATIVE MARKE				
PACTOR	CODE		He	an Sta.	Dev.	u	
Q11	UK						
Q6A Q6A	1 2		2.7 2.8		1.310	34 56	
Q11	GERMAN						
Q6A Q6A	1 2		3.4		1.237	68 8	
For entire sa			3.0		1.263	166	
· · AMALTSIS	OF VARIANCE	DZRIG	g 1 • •				
Cell Means an Variable Q			(CONT.) REGIONAL TA	MES APUE	LIC PERS		
PACTOR	CODE				Dev.	Ħ	
Q11	UK						
Q6A Q6A	1		3.7		1.017	34	
Q11	GERMAN 3		3.6	179	1.081	56	
Q6A Q6A	1		3.7		1.111	68	
For entire sa			4.5 3.7		.756 1.073	8 166	
* * AMALYSIS	OF VARIANCE -						
- ADADIOLO	OF VARIABLE	DESIG	1 • •				
EFFECT Q11	BY Q6A						
	BY Q6A			11 1/2,	и - 68	<b>)</b>	
EFFECT Q11	BY Q6A Tests of Sign	ificance		11 1/2,		) of F	
EFFECT Q11 Multivariate of Test Hame Pillais	BY Q6A Tests of Sign	ificance	(S - 1, H -		DF Sig.	of F	
EFFECT 011 Multivariate of Test Hame Pillais Hotellings	BY Q6A Tests of Sign: Value Ap .11348 .12801	ificance oprox. F .70659 .70659	(8 = 1, H = Hypoth. DF 25.00 25.00	Error 138. 138.	DF 81g. 00 00	of P .844 .844	
EFFECT Q11 Multivariate of Test Hame Pillais	BY Q6A Tests of Sign: Value Ap .11348	ificance	(S = 1, H = Rypoth. DF 25.00	<b>Erro</b> r 138.	DF 81g. 00 00	of P	
EFFECT Q11 Multivariate of Test Hame Pillais Ectellings Wilks	BY Q6A Toste of Sign. Value Ap .11348 .12801 .88552	ificance oprox. F .70659 .70659	(8 = 1, H = Hypoth. DF 25.00 25.00	Error 138. 138.	DF 81g. 00 00	of P .844 .844	
EFFECT Q11 Multivariate of Test Hame Pillais Ectellings Wilks	BY Q6A Tosts of Sign. Value Ap .11348 .12801 .88552 .11348	ificance oprox. F .70659 .70659 .70659	(8 = 1, H = Rypoth. DF 25.00 25.00 25.00	Error 138. 138.	DF 81g. 00 00	of P .844 .844	
EFFECT	BY Q6A Tosts of Sign. Value A .11348 .12801 .88652 .11348	ificance pprox. F	(8 = 1, H = Rypoth. DF 25.00 25.00	138. 138. 138.	DF 81g. 00 00 00	of P .844 .844 .844	of T
EFFECT	BY Q6A Tosts of Sign. Value A .11348 .12801 .88652 .11348  .11348         	1ficance pprox. F	(8 = 1, H = Rypoth. DF	138. 138. 138.	51g.	of F .944 .944 .844	of F
EFFECT 011 Multivariate Test Hame Pillais Hotellings Wilks Roys Univariate F-	BY Q6A Tests of Sign. Value Ap .11348 .12801 .88652 .11346 	70659 .70659 .70659 .70659 .70659	(8 = 1, H = Sypoth. DF 25.00 25.00 25.00 F.	138. 138. 138. 138.	51g.	of F .944 .844 .844 F Sig.	.682
EFFECT	BY Q6A Tosts of Sign. Value A; .11348 .12801 .88652 .11348 	1ficance pprox. F .70659 .70659 .70659 .162) D. ror 88 By .57458 .86134 .78151	(8 = 1, H = 25.00 25.00 25.00 25.00 F	Rrior 138. 138. 138. 138. Rrior M9 1.41095 1.69667 1.57890	00 8ig.	of F .844 .844 .844 F Sig. 897 001	.682 .997 .737
EFFECT Q11 Hultivariate Test Hane Pillaie Eotellings Wilks Roys Univariate F- Variable Hy Q9A Q9B Q9C Q9D	BY Q6A Tests of Sign. Value Ap .11348 .12801 .88652 .11346  tests with (1, poth. SS Err .23842 228 .00002 274 .17867 253 .00765 232	ificance oprox. F .70659 .70659 .70659 .162) D. cor 88 B) .57458 .86114 .78151	(8 = 1, H = 25.00 25.00 25.00 F	Error MS  1.41095 1.57667 1.57697 1.43375	00 8ig. 00 00 00 .16 .00 .11 .00	of F .044 .044 .844 F Sig. 897 001 316 533	.682 .997 .737
EFFECT Q11 Multivariate Test Hane Pillais Ectellings Wilks Roys  Univariate F- Variable Hy Q91 Q92 Q90 Q90 Q90 Q90	BY Q6A Tests of Sign. Value A; .11348 .12801 .88552 .11346 	fficance pprox. F	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00  F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443	Error M9 1.41095 1.57690 1.43375 1.44133	.16 .00 .00 .11 .00 .11	of F .944 .844 .844 F Sig. 897 001 316 333 026 676	.682 .997 .737 .942 .135
EFFECT Q11 Multivariate Test Hame Pillais Hotellings Wilks Roys	BY Q6A Tests of Sign. Value A, .11348 .12801 .88652 .11348 	ificance pprox. F	(8 = 1, H = 25.00 25.00 25.00 25.00 F	Error M9  1.41095 1.69667 1.57890 1.43375 1.44133	00 81g. 00 00 00 00 00 00 00 00 00 00 00 00 00	of P .944 .844 .844 .844 .844 .844 .845 .817 .001 .316 .333 .026 .676 .676	.682 .997 .737 .942 .135 .299
EFFECT Q11 Hultivariate of the control of the co	BY Q6A Tests of Sign.  Value A .11348 .12801 .88652 .11346 tests with (1, poth. SS Err .23842 228 .00002 274 .17867 235 .00765 232 3.25777 233. 1.71443 255. 52278 164 .05668 15933991 148.	ificance pprox. F	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00  F.  Poth. E3  .23842 .0002 .17867 .00765 3.25777 1.71443 .52758 .05668 .33991	Error M9 1.41095 1.41095 1.41095 1.43075 1.43375 1.43375 1.44133 1.57757 1.01444 .98166 .91563	00 81g. 00 00 00 00 11 00 00 2.26 1.08 52 05 37 7	of P .944 .944 .844 .844 .844 .844 .844 .846 .846 .8	.682 .997 .737 .942 .135 .299 .472 .810
EFFECT Q11 Multivariate Test Hame Pillais Hotellings Wilks Roys	BY Q6A Tests of Sign.  Value A, .11348 .12801 .88652 .11348 .11348 .12801 .88652 .11348	fficance pprox. F	(8 = 1, H = 25.00 25.00 25.00 25.00 25.00 F	RITOR 138. 138. 138. 138. 1.41095 1.69667 1.57690 1.43133 1.57757 1.44133 1.57757 1.98166 .91563 .68801	DJ 81g. 000 000 000 -116 -000 -11000 -52: -05: -37: -4.83:	of P .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .135 .299 .472 .810 .543
EFFECT Q11 multivariate of the control of the c	BY Q6A Tests of Sign.  Value A, .11348 .12801 .88652 .11348 tests with (1, poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 3.25777 233 1.71443 255. 52758 164 .05668 159 .33991 148 3.32830 111 .17458 163 .49972 175	1ficance  DPFOX. P .70659 .70659 .70659 .70659 .162) D. COT 88 B3 .57458 .86134 .78151 .26661 .49475 .56618 .3929 .02941 .33193 .45693 .35714	(8 = 1, H =  Rypoth. EF  25.00 25.00 25.00 25.00  F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972	Error M9 1.41095 1.41095 1.43095 1.44413 1.57757 1.44133 1.57757 1.4133 1.5735	DF 81g.  00 00 00 00 11	of P .044 .044 .044 .044 .097 .001 316 .007 .773 .026 .077 .773 .761 .723 .761	.682 .997 .737 .942 .135 .299 .472 .810 .543 .029 .695
EFFECT Q11 Multivariate Test Hame Pillais Eotellings Wilks Roys	BY Q6A Toste of Sign.  Value Ay .11348 .12801 .88652 .11348 .1368 .1368 .1368 .1368 .1368 .1368 .1368 .23842 .228 .00002 .274 .17967 .23842 .228 .00002 .274 .17967 .235 .25777 .233 .171443 .255 .52758 .649 .33293 .111 .7458 .33293 .117 .44972 .7553 .49972 .733991 .302 .49972 .733991 .302	fficance pprox. F	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00 25.00  F.  Poth. ES  .23842 .0002 .17657 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458	Error MS 1.41095 1.41095 1.4375 1.44133 1.57757 1.01444 98166 91503 1.13103 1.08643 1.08643	00 81g. 00 00 00 00 116 00 00 117 00 00 117	of P .844 .844 .844 .844 .844 .844 .844 .84	.682 .997 .737 .942 .133 .299 .472 .810 .543 .029 .695 .498
EFFECT Q11 miltivariate Test Hame Pillais Hotellings Wilks Roys	BY Q6A Tosts of Sign.  Value Aj .11348 .12801 .88652 .11348 tests with (1. poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 .125777 233 1.71443 255 .52758 164 .05668 159 .33991 148 .17458 163 .49972 175 .33991 302 .44441 197 .24318 240	fficance pprox. F	F. 23842	RITOR 138. 138. 138. 138. 138. 1.495 1.49667 1.57690 1.4373 1.57757 1.44133 1.57757 1.10144 98166 91563 1.13163 1.13163 1.13163 1.108413 1	DF 81g. 000 000 000 11. 000 11.08 52:05 37:468 468 18:33:	of P .944 .844 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .543 .029 .695 .498 .670
EFFECT Q11 multivariate of the control of the c	BY Q6A Tests of Sign.  Value A .11348 .12801 .88552 .11348 tests with (1, poth. SS Err23842 228 .00002 274 .17867 255 .00765 232 3.25777 233 1.71443 255 .52758 164 .05668 159 .33991 304 3.3230 111 .17458 163 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 304 .49972 175 .33991 305 .49972 175 .3398	161cance  DPFOW. P .70659 .70659 .70659 .70659 .162) D. CFOT 88 By .57458 .866134 .78151 .26661 .49475 .56618 .33929 .02941 .33193 .45693 .35714 .62920 .68487 .81828 .15441 .10399	Rypoth. EF  25.00 25.00 25.00 25.00  F.  Poth. ES  .23842 .0002 .17867 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 .41441	Error M9 1.41095 1.41095 1.43097 1.47095 1.43097 1.43130 1.57757 1.4413 1.57757 1.4413 1.57157 1.4413 1.57157	DJ 81g. 000 000 11. 000 11. 000 2.26 1.08 5.22 0.53 4.83 1.83	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .133 .299 .472 .810 .543 .029 .695 .498 .670
EFFECT Q11 Multivariate Test Hame Pillais Ectellings Wilks Roys  Univariate F Variable Hyr  C91 C92 C92 C92 C92 C93 C93 C93 C93 C94 C94 C95 C95 C96 C97 C96 C97 C97 C97 C98 C98 C98 C98 C98 C98 C98 C98 C98 C98	BY Q6A Toste of Sign.  Value A .11348 .12801 .88652 .11346 tests with (1. poth. SS Er23842 228 .00002 274 .17967 255 .00765 232 3.25777 233 1.71443 255 .52758 164 .05668 159 .33991 148 3.32830 111 .17458 163 .49972 175 .33991 180 .44441 190 .02196 233 3.48884 157 .24318 240 .02196 233 3.48884 157 .215287 160	fficance pprox. F	Rypoth. EF  25.00 25.00 25.00 25.00 25.00  F.  Poth. ES  .23842 .0002 .17867 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 41441 .24518 .02196 3.49884 2.15287	Error M9 1.41095 1.41095 1.4307 1.43375 1.44133 1.57757 1.01444 .98166 .91563 .68801 1.3103 1.08413 1.22110 1.48243 1.22110 1.48243 1.797078	DF 81g.  00 00 00 11 00 2.26 1.08 1.26 1.37 4.83 1.31 1.61 1.61 2.17	of P .844 .844 .844 .844 .844 .844 .844 .84	.682 .997 .737 .942 .135 .299 .472 .543 .029 .695 .498 .670 .561 .686 .902
EFFECT Q11 multivariate Test Hame Pillais Hotellings Wilks Roys	BY Q6A Tosts of Sign.  Value A .11348 .12801 .88652 .11348  tests with (1. poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 .125777 233 1.71443 255 .52758 164 .05668 159 .33991 148 .31488 163 .32930 111 .17458 163 .49972 175 .24318 240 .02196 233 .44841 197 .24318 240 .02196 233 .44841 157 .24318 240 .02196 233 .449884 157 .215287 160 .231200 208 .05214 208	Afficance Opprox. F .70659 .70659 .70659 .70659 .162) D57458 .86134 .78151 .26661 .33999 .35714 .62920 .33193 .45699 .35714 .62921 .15441 .10399 .42647 .52311 .75345	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00 25.00  7.  Poth. ES  .23842 .00002 .17687 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 41441 .24318 .02196 3.49884 2.15287 2.23200 .05214	RITOT M9 1.40967 1.40967 1.57690 1.4373 1.57757 1.0144 .98166 .9156 .9156 .13183 1.0843 1.23210 1.4323 1.43891 .97177 .99088 1.23926	DF 81g.  00 00 00 16 00 16 00 1.00 1.00 1.00 1	of P .844 .844 .844 .844 .844 .844 .844 .84	.682 .997 .737 .942 .135 .299 .472 .810 .543 .029 .695 .498 .670 .561 .902 .060 .142 .1841
EFFECT Q11 Multivariate Test Hame Pillaie Eotellings Wilks Roys	BY Q6A Treate of Sign.  Value A .11348 .12801 .88552 .11348 tests with (1, poth. S5 Err .23842 228 .00002 274 .17867 255 .00765 232 3.25777 233 3.25777 233 3.2778 164 .05668 159 .33991 148 3.32830 111 .17458 163 .49972 175 .33991 302 .41441 197 .24318 240 .02196 233 3.49884 157 .215287 160 .223200 200 .05214 2008 .139763 230	161cance  170659 170659 170659 162) D.  162) D.  162) D.  163 B.  164) B.  165618 16618 17815 17868 17818 17818 17818 17818 17818 17818 17818 17818 17818 17818 17818 17818 17818 17818 17818	F. 23842	Error M9 1.41095 1.41095 1.4307 1.4307 1.4307 1.4307 1.57757 1.01444 .98166 .91563 .68801 1.3189 1.08413 1.86843 1.22110 1.48243 1.24120 1.48243 1.292668 1.292668	DF 81g.  00 00 00 1.1 00 2.26 1.08 5.2 0.5 3.7 4.83 1.8 3.3 1.6 0.01 3.60 2.17 1.80	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .135 .299 .472 .810 .543 .029 .695 .670 .561 .686 .902 .060 .142 .181 .841
EFFECT Q11 Multivariate Test Hame Pillais Ectellings Wilks Roys  Univariate F- Variable Hy  Q91 Q92 Q90 Q92 Q90 Q91 Q91 Q91 Q91 Q91 Q91 Q91 Q91 Q91 Q91	BY Q6A Toste of Sign.  Value A;  .11348 .12801 .88552 .11346  teste with (1, poth. SS Err23842 228 .00002 274 .17967 255 .00765 232 .3.25777 233 .171443 255 .52758 164 .05668 159 .33991 48 .3.32930 111 .17458 183 .49972 175 .33991 392 .41441 197 .24318 240 .02196 233 .3.49884 157 .24318 240 .02196 233 .3.49884 157 .24318 240 .02196 233 .49884 157 .215287 160 .2.31200 200 .05214 208 .19763 230 .05104 232 .05104 239	161cance  Opprox. F  .70659 .70659 .70659 .162) D.  FOR 88 By .57458 .86114 .78151 .26681 .49475 .56618 .33929 .02941 .33193 .45693 .35714 .62920 .68487 .52311 .75945 .47479 .40651 .66811	Rypoth. EF  25.00 25.00 25.00 25.00 25.00 25.00 F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32810 .17458 .49972 .33991 4.1441 .2418 .02196 3.49884 .02196 3.49884 .19763 .055104 .19763	Error M9 1.41095 1.41095 1.430375 1.44133 1.57757 1.01444 .98166 91563 68801 1.3163 1.286883 1.2210 1.43231 2.1026888 1.23926 1.236888 1.236888 1.236888	DF 81g.  00 00 00 11 00 2.26 1.08 5.2 0.5 3.7 4.83 1.5 1.6 0.0 3.60 0.11 1.80 0.04 1.00 0.03	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .135 .299 .472 .810 .543 .029 .695 .498 .670 .561 .902 .060 .142 .1841
EFFECT Q11 Multivariate of the control of the co	BY Q6A Tests of Sign.  Value A .11348 .12801 .88552 .11348 tests with (1, poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 3.25777 233. 1.71443 255 .52758 164 .05668 159 .33991 302 .31930 111 .17458 163 .49972 175 .33991 302 .41441 197 .24318 240 .01196 233 3.4984 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 .35316 199 .37773 248	161cance  DPTOX. P .70659 .70659 .70659 .162) D.  TOT 88 By .86134 .78151 .26661 .33929 .02941 .33193 .45693 .35714 .62920 .68467 .81028 .15441 .10399 .42647 .52311 .10399 .42647 .52311 .64811 .05352 .47479 .40651 .64811	F. 23842	Error M9 1.41095 1.41095 1.57890 1.57890 1.57890 1.57890 1.57890 1.08413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.68643 1.22110 1.48243 1.43893 1.27117 1.99082 1.282668 1.2212 1.23174 1.23172	DF 81g.  00 00 00 00 11 00 2.26 1.08 5.22 0.5 3.7 4.83 1.5 46 1.8 3.3 1.6 0.1 1.80 2.17 1.80 0.04 1.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT Q11 Multivariate Test Hame Pillais Ectellings Wilks Roys  Univariate F- Variable Hy  Q91 Q92 Q90 Q92 Q90 Q91 Q91 Q91 Q91 Q91 Q91 Q91 Q91 Q91 Q91	BY Q6A Tests of Sign.  Value A .11348 .12801 .88552 .11348 tests with (1, poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 3.25777 233. 1.71443 255 .52758 164 .05668 159 .33991 302 .31930 111 .17458 163 .49972 175 .33991 302 .41441 197 .24318 240 .01196 233 3.4984 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 .35316 199 .37773 248	161cance  Opprox. F  .70659 .70659 .70659 .162) D.  FOR 88 By .57458 .86114 .78151 .26681 .49475 .56618 .33929 .02941 .33193 .45693 .35714 .62920 .68487 .52311 .75945 .47479 .40651 .66811	Rypoth. EF  25.00 25.00 25.00 25.00 25.00 25.00 F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32810 .17458 .49972 .33991 4.1441 .2418 .02196 3.49884 .02196 3.49884 .19763 .055104 .19763	Error M9 1.41095 1.41095 1.430375 1.44133 1.57757 1.01444 .98166 91563 68801 1.3163 1.286883 1.2210 1.43231 2.1026888 1.23926 1.236888 1.236888 1.236888	DF 81g.  00 00 00 00 11 00 2.26 1.08 5.22 0.5 3.7 4.83 1.5 46 1.8 3.3 1.16 0.01 0.01 0.01 0.01 0.01 0.01 0.01	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .942 .1359 .472 .810 .5029 .695 .695 .696 .906 .142 .906 .906 .906 .906 .906 .906 .906 .906
EFFECT Q11 Multivariate of the control of the co	BY Q6A Tests of Sign.  Value A .11348 .12801 .88552 .11348 tests with (1, poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 3.25777 233. 1.71443 255 .52758 164 .05668 159 .33991 302 .31930 111 .17458 163 .49972 175 .33991 302 .41441 197 .24318 240 .01196 233 3.4984 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 .35316 199 .37773 248	161cance  DPTOX. P .70659 .70659 .70659 .162) D.  TOT 88 By .86134 .78151 .26661 .33929 .02941 .33193 .45693 .35714 .62920 .68467 .81028 .15441 .10399 .42647 .52311 .10399 .42647 .52311 .64811 .05352 .47479 .40651 .64811	F. 23842	Error M9 1.41095 1.41095 1.57890 1.57890 1.57890 1.57890 1.57890 1.08413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.68643 1.22110 1.48243 1.43893 1.27117 1.99082 1.282668 1.2212 1.23174 1.23172	DF 81g.  00 00 00 00 11 00 2.26 1.08 5.22 0.5 3.7 4.83 1.5 46 1.8 3.3 1.6 0.1 1.80 2.17 1.80 0.04 1.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT Q11 Multivariate Test Hame Pillais Ectellings Wilks Roys Univariate F- Variable Hy  Q9h Q9c Q9c Q9c Q9c Q9c Q9c Q9c Q9c Q9c Q9c	BY Q6A Tests of Sign.  Value A .11348 .12801 .88552 .11348 tests with (1, poth. SS Er23842 228 .00002 274 .17867 255 .00765 232 3.25777 233. 1.71443 255 .52758 164 .05668 159 .33991 302 .31930 111 .17458 163 .49972 175 .33991 302 .41441 197 .24318 240 .01196 233 3.4984 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 3.49884 157 .215287 160 .01296 233 .35316 199 .37773 248	161cance  Opprox. F  .70659 .70659 .70659 .162) D.  FOR 88 By .57458 .861134 .78151 .26661 .49475 .56618 .33929 .02941 .33193 .45693 .35714 .62920 .68407 .81828 .15441 .10399 .42647 .57945 .474479 .40651 .66811 .08193	Rypoth. EF  25.00 25.00 25.00 25.00 25.00 25.00 F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 4.1441 .24118 .02196 3.49884 .19763 .05104 .19763 .05104 .50316 .37773 3.73912	Error M9 1.41095 1.41095 1.57890 1.57890 1.57890 1.57890 1.57890 1.08413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.68643 1.22110 1.48243 1.43893 1.27117 1.99082 1.282668 1.2212 1.23174 1.23172	DF 81g.  00 00 00 00 11 00 2.26 1.08 5.22 0.5 3.7 4.83 1.5 46 1.8 3.3 1.6 0.1 1.80 2.17 1.80 0.04 1.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT Q11 Multivariate Test Hame Pillais Ectellings Wilks Roys  Univariate F- Uni	BY Q6A Toste of Sign.  Value A .11348 .12801 .88552 .11346 .28652 .11346 .2904 .294 .00002 .274 .17967 .23842 .228 .00002 .274 .17967 .2352777 .233 .25777 .233 .252758 .64 .33991 .48 .332930 .11 .17458 .33991 .48 .332930 .11 .17458 .33991 .24318 .49972 .724318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .24318 .49972 .33393 .49884 .373912 .85316 .373912 .85316	161cance  Opprox. F  .70659 .70659 .70659 .162) D.  FOR 88 By .57458 .861134 .78151 .26661 .49475 .56618 .33929 .02941 .33193 .45693 .35714 .62920 .68407 .81828 .15441 .10399 .42647 .57945 .474479 .40651 .66811 .08193	Rypoth. EF  25.00 25.00 25.00 25.00 25.00 25.00 F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 4.1441 .24118 .02196 3.49884 .19763 .05104 .19763 .05104 .50316 .37773 3.73912	Error M9 1.41095 1.41095 1.57890 1.57890 1.57890 1.57890 1.57890 1.08413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.57757 1.4413 1.68643 1.22110 1.48243 1.43893 1.27117 1.99082 1.282668 1.2212 1.23174 1.23172	DF 81g.  00 00 00 00 11 00 2.26 1.08 5.22 0.5 3.7 4.83 1.5 46 1.8 3.3 1.6 0.1 1.80 2.17 1.80 0.04 1.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT Q11 Multivariate Test Hame Pillate Eotellings Wilks Roys Univariate F- Variable Hy  Q9A Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9B Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C	BY Q6A Tosts of Sign.  Value A .11348 .12801 .88652 .11348 tests with (1, poth. SS Err .23842 228 .00002 274 .17867 235 .00765 232 3.25777 233 1.71443 255 .52758 164 .05668 159 .33991 348 3.32830 111 .17458 163 .49972 175 .33991 348 3.32830 111 .17458 163 .49972 175 .33991 302 .341441 197 .24318 240 .00196 233 3.49884 157 .215287 160 .05144 208 .19763 230 .05104 232 .50316 299 .37773 248 3.73912 185	### A PRINCE OF THE PRINCE OF	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00 25.00  F.  Poth. E3  .23842 .00002 .17867 .00765 3.28777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 .41441 .24518 .02196 3.4984 2.15287 2.23200 .05124 .19763 .05104 .50316 .37773 3.73912	Error M9 1.41095 1.41095 1.47095 1.47095 1.44133 1.57757 1.44133 1.57757 1.44133 1.3103 1.3103 1.3103 1.32110 1.48243 1.43893 1.22110 1.48243 1.43893 1.23216 1.24248	DF 81g.  00 00 00 00 11 00 2.26 1.08 5.22 0.5 3.7 4.83 1.5 46 1.8 3.3 1.6 0.1 1.80 0.04 1.1 1.80 0.04 1.3 0.04 1.3 0.04 1.3 0.3 2.7 2.7	.944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT . Q11 Hultivariate Test Hame Pillate Eotellings Wilks Roys Univariate F- Variable Hy  Q9A Q9B Q9C Q9D Q9C Q9D Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C	BY Q6A Tosts of Sign.  Value A;  .11348 .12801 .88552 .11346 .88552 .11346 .1348 .23842 228 .00002 274 .17967 255 .00765 232 .3.25777 233 .1.71443 255 .52758 164 .05668 159 .33991 488 .3.32930 111 .17458 183 .49972 175 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .33991 248 .373912 285 .50316 232 .05104 232 .05104 238 .05104 238 .05104 238 .05104 238 .05104 238 .05104 238 .057773 246 .373912 185	ificance  pprox. F	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00 25.00  F.  Poth. ES  .23842 .00002 .17667 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 .41441 .24118 .02196 3.49884 .19763 .05104 .19763 .05104 .50316 .37773 3.73912	Error M9 1.41095 1.41095 1.43035 1.43375 1.44133 1.57757 1.01444 .98166 91563 68801 1.3189 1.22100 1.48243 1.2210 1.48243 1.2210 1.48243 1.2210 1.48243 1.2210 1.48243 1.2210 1.48243 1.2210 1.48243 1.2210 1.48243 1.2210 1.48243 1.4224	DF 81g.  00 00 00 1.1 00 2.26 1.08 5.2 0.5 3.7 4.83 1.16 0.01 3.60 2.17 1.80 0.40 0.41 3.27  EF = 68 1	of P .944 .844 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT . Q11 Multivariate Tast Hame Pillais Ectellings Wilks Roys Univariate F- Univariate F- Univariate Eyr Q9B Q9C Q9D Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C	BY Q6A Tosts of Sign:  Value A;  .11348 .12801 .88552 .11346 .88552 .11346 .23842 228 .00002 274 .17967 255 .00765 232 .3.25777 233 .171443 255 .52758 164 .05668 159 .33991 488 .3.32930 111 .17458 183 .49972 175 .33991 392 .41441 197 .24318 240 .02196 233 .3.49884 157 .24318 240 .02196 233 .3.49884 157 .24318 240 .03104 232 .05104 232 .05104 232 .05104 238 .051	ificance prox. F	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00 25.00  7.  Poth. ES  .23842 .0002 .17867 .00765 3.25777 3.25778 .05688 .33991 3.32830 .17458 .49972 .33991 41441 .24518 .02196 3.49884 2.15287 2.23200 .05214 .19763 .05104 .50316 .37773 3.73912	Error M9 1.41095 1.41095 1.4307 1.43375 1.44133 1.57757 1.01444 98166 91563 68801 1.3103 1.08413 1.22110 1.48243 1.22110 1.48243 1.22110 1.48243 1.23126 1.286688 1.23262 1.23174 1.14248	DF 81g.  00 00 00 11 00 21 26 1.08 52 05 37 4.83 1.15 1.46 1.83 1.15 1.80 0.11 1.80 0.21 1.80 0.24 3.27  E = 68  DF Sig.	of F .944 .944 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
EFFECT . Q11 Hultivariate Test Hame Pillate Eotellings Wilks Roys Univariate F- Variable Hy  Q9A Q9B Q9C Q9D Q9C Q9D Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C Q9C	BY Q6A Tosts of Sign.  Value A; .11348 .12801 .88652 .11348 .12801 .88652 .11348 .23842 .228 .00002 .274 .17867 .23842 .228 .00002 .274 .17867 .2352 .25777 .233 .71443 .255 .32758 .646 .32830 .1117458 .83.32830 .1117458 .1832830 .1117458 .1832830 .1127458 .23991 .24141 .297 .24318 .240 .02146 .23200 .0214 .208 .37739 .2418 .256433	ificance pprox. F	(8 = 1, H =  Rypoth. DF  25.00 25.00 25.00 25.00  F.  Poth. E3  .23842 .0002 .17687 .00765 3.25777 1.71443 .52758 .05668 .33991 3.32830 .17458 .49972 .33991 4.441 .24518 .02196 3.49864 2.15287 2.23200 .05214 .19763 .05104 .50316 .37773 3.77912	Error M9 1.41095 1.41095 1.43095 1.43095 1.43195 1.43195 1.43195 1.43191 1.3109 1.3109 1.3109 1.3109 1.348243 1.43191 1.43243 1.4310 1.43243 1.43241 1.14248	DF 81g.  00 00 00 00 00 00 00 00 00 00 00 00 00	of F .044 .844 .844 .844 .844 .844 .844 .844	.682 .997 .737 .942 .139 .472 .810 .5498 .695 .498 .561 .686 .906 .142 .181 .710 .851 .520
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• • AKALYSIS OF VARIANCE -- DESIGN 1 • •

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Univariate F-tests with (1,162) p. F. Variable Sypoth. 88 Error 85 Sypoth. ES Error MS F Sig. of F Ppotth. 88 Error 85 Hypoth. E3

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.99200 208.47479 .99200 1.41095 1.69667 1.57890 1.43375 18.04277 2.60844 4.63830 .07172 Q9A .000 Q9B Q9C Q9D .108 .033 .789 .352 .065 .234 .732 .947 Q92 Q97 1.44133 .87013 3.44027 1.01444 .98166 .91563 .68801 1.42537 .11782 .00436 090 03E 031 03E .34653 .956 .750 .622 1.13183 .00300 OSH OSH OST 1.08413 .10217 .10217 .24409 .79269 1.61527 .31015 1.90439 1.86843 1.22110 1.48243 1.43891 .206 .578 Q9Q Q92 .97177 .169 .305 .447 .381 .292 .99088 1.06038 1.06038 .58001 .77085 1.11763 4.48736 .44971 .01165 1.23926 1.28688 1.42226 098 760 M60 A60 A60 A60 A60 .71878 200.75945 .99200 208.47479 1.58956 230.40651 6.44430 232.64811 .55257 199.05252 .01785 248.14181 2.35710 185.08193 .99200 1.58956 6.44430 .55257 1.43610 .503 .914 O9T 2.35710 • • AMALYSIS OF VARIANCE -- DESIGE 1 • • EFFECT .. Q11 Multivariate Tests of Significance (S = 1, M = 11 1/2, H = 68 ) Test Name Value Approx. F Hypoth. DF Error DF Sig. of F Pillais Ectellings Wilks .43750 4.29339 .77779 4.29339 .56250 4.29339 .43750 138.00 138.00 138.00 25.00 25.00 Roye Univariate F-tests with (1,162) D. F. Variable Rypoth. 88 Error 88 Bypoth. M9 Error M9 F Sig. of F 9.29460 228.57458 9.29460 .67418 274.86134 .67418 6.60563 255.78151 6.60563 4.24360 232.26681 4.24360 6.49373 233.49475 6.49373 7.49533 255.56610 7.49533 1.41095 1.69667 1.57890 1.43375 1.44133 6.58745 .39735 4.18370 Q9A Q9B Q9C Q9D Q9E Q9F Q9F .011 .529 2.95980 4.50539 .087 .035 .031 .857 .161 .341 .376 .312 .063 .505 255.36618 164.33929 159.02941 148.33193 111.45693 183.35714 175.62920 302.68487 197.81828 240.15441 233.10399 157.42647 160.52311 200.75945 4.75119 1.57757 1.01444 .98166 .91563 .68801 1.13183 1.08413 1.86843 1.22110 1.48243 1.43891 .97177 7.49533 .03319 1.94432 .83429 .54179 1.16335 3.78624 7.49533 .03319 1.94432 .83429 .54179 1.16335 3.78624 4.75119 .03272 1.98063 .91117 .76747 1.02784 03F 03E 03E 03E 3.49242 .44652 4.76530 3.87795 .10896 7.80920 3.78524 .83429 5.81891 5.74880 .15679 7.58873 O9M .83429 5.81891 5.74880 .15679 7.58873 .41129 090 090 .742 090 098 098 .520 .007 .524 .321 41129 .99088 41508 9.38368 200.75945 .52405 208.47479 1.41111 230.40651 5.24767 232.44811 14.60653 199.05252 6.32125 248.14181 3.48069 185.08193 9.38368 .52405 1.41111 5.24767 14.80653 .41508 7.57203 .40723 .99216 3.65411 12.05038 1.23926 1.28688 1.42226 63A 63A 63A 63A 1.43610 .001 Q9 E 6.32155 3.04661 3.48069 1.14748 \* \* AMALYSIS OF VARIANCE -- DESIGN 1 \* \* EFFECT .. CONSTANT
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EXTERNAL COMMUNICATION SYSTEMS

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   For entire sample
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   - - - - - - - - -
  • • AMALYSIS OF VARIANCE -- DESIGN 1 • •
   EFFECT .. Q11 SY Q6A Multivariate Tests of Significance (B=1,\ B=8\ 1/2,\ B=70\ 1/2)
   Test Name
                                        Value Approx. F Sypoth. DF Error DF Sig. of F
   Pillais
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                                      .10233 .85799
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   Universate F-tests with (1,161) D. F.
   Variable Sypoth. SS Error SS Sypoth. MS Error MS
                             Poth. 88 Prior 88 1

.25269 200.51954

1.12622 63.72862
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.42373 160.43626
.97549 202.19623
.00568 118.09938
.22076 101.76395
4.30180 184.04513
3.93011 147.94677
3.24980 204.12758
3.58596 194.84190
4.89268 212.96537
.91385 264.42943
.64377 253.43521
.67774 253.69576
.01424 266.08153
1.38646 158.97804
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.73354
.63207
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3.76315
4.27686
2.56319
                                                                              .25269
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   0104
   Q10B
Q10C
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.930
                                                                              .97549
.00568
.22076
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                                                                                                     1.26787
1.21020
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                                                                                                                             2.56319
2.96312
3.69883
.55640
.40075
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   Q10L
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                                                                              1.38646
                                                                                .29872
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   0108
 • • ANALYSIS OF VARIANCE -- DESIGN
  EFFECT .. Q6A Eultivariate Tests of Significance (S = 1, H = 6 1/2, H = 70 1/2)
  Tost Name
                                       Value Approx. F Sypoth. DF Error DF Sig. of F
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.26008 1.95744
.79360 1.95744
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  Univariate F-tests with (1,161) D. F.
  Variable Sypoth. SS Error SS Sypoth. MS Error MS
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                            ypoth. 88 Error 88 Hypoth. MS

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.04597 118.09938 .04597
4.37914 101.76295 4.37914
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.24869 204.12758 .24869
.14527 194.84190 .14527
1.79002 212.96537 1.79002
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  010R
* * ANALYSIS OF VARIANCE -- DESIGN 1 * *
 EFFECT .. Q11
 Multivariate Tests of Significance (8 = 1, H = 8 1/2, H = 70 1/2)
                                      Value Approx. F Hypoth. DF Error DF Sig. of F
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- A87 -

Univariate F-tests with (1,161) D. F. Variable Bypoth. SS Error SS Bypoth. MS Error ES P Sig. of P 7.28594 200.51954
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#### Appendix 4

Output of Multivariate Analysis of Variance Test (MANOVA) for Survey 2

Test for all Variables of Question 6

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26 26 26 26 26 27 27 27 27	608. 876. 100.1 -ved .bs8 516. 516.	2,555 2,565 2,565 2,665 2,	SHOTHER SHOTHER SHOTHER SHOTHER RO SHOW POPER SHOTHER AVEIVES AVEIVES SHOTHER SHOTHER SHOTHER SHOTHER RO SHOW	02 03 04 05 07 08 09 09 09 09 09 09 09 09 09 09 09 09 09
26 26 26 27 27 26 26 26 27 27 27 27 27 27 27 27 27 27 27 27 27	608. 171.1 608. 100.1 .ved .bas 216. 216.	2,506 2,906 2,906 2,906 3,906 3,047 4,106 5,919 4,160 5,919	SHOTHER SHOTHER SHOTHER SHOTHER RO SHOW POPER SHOTHER AVEIVES AVEIVES SHOTHER SHOTHER SHOTHER SHOTHER RO SHOW	Q2 Q2 Q3 POT entire sem Call Means and Variable Q6 Variable Q6 Variable Q6 Q2 Q2 Q3 Q3 Q4 Q4 Q5 Q5 Q5 Q6 Q6 Q7 Q7 Q7 Q8 Q8 Q8 Q9 Q9 Q9 Q9 Q9 Q9 Q9 Q9 Q9 Q9 Q9 Q9 Q9
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E C C C C C C C C C C C C C C C C C C C	.ved .bi8 .ved .bi8 .ved .bi8 .ved .bi8 .ved .bi8	PRODUCT QUALITY  Acen  A	SECTIONS SECTION SECTION SECTION COUNTY SECTION COUNTY SECTION COUNTY SECTION COUNTY SECTION COUNTY SECTION COUNTY SECTION COUNTY SECTION COUNTY COUNTY SECTION COUNTY COU	Tor entire sem  On table 96  Pariable 96  On to the sem  On
E C C C C C C C C C C C C C C C C C C C	.ved .bis 208. 208. 171.1 209. 209. 200.1 20	MADDET QUALITY  MADDET QUALITY  2,906  2,067  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156  3,619  4,156	SEGULISA SEG	70 70 70 70 70 70 70 70 70 70 70 70 70 7
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E E E E E E E E E E E E E E E E E E E	FIGURE COS.  S18.  - Wad . bas  172.  - Wad . bas  171.1  - Wad . bas  878.  - S84.  -	PRODUCT INTOVATION 5.165  2.906. 2.906. 2.007  - DESIGNS 1 • .  1.001 2.019 2.	SHOTHER SHOTHER SHOTHER SHOTHER SHOTHER SHOUGHT DAY, SHOTHER	Variable 96  Variable 96
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TTT TE C C C C C C C C C C C C C C C C C	FIGURE COS.  S18.  - Wad . bas  172.  - Wad . bas  171.1  - Wad . bas  878.  - S84.  -	PRODUCT INTOVATION 5.165  2.906. 2.906. 2.007  - DESIGNS 1 • .  1.001 2.019 2.	EMOTICAL EMO	02 03 04 04 05 05 05 05 05 05 05 05 05 05 05 05 05
25 56 56 56 56 56 56 56 56 56 56 56 56 56	296' PLI'T  ELG. 691'I  -AMG 'PAS  111'I  -AMG 'PAS  121'I  -AMG 'PAS  121'I  -AMG 'PAS  218'  2	2.1189 2.906	ESTITUES  APPLICATE  A	Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q
25 56 56 56 56 56 56 56 56 56 56 56 56 56	296' PLI'T  ELG. 691'I  -AMG 'PAS  111'I  -AMG 'PAS  121'I  -AMG 'PAS  121'I  -AMG 'PAS  218'  2	2.125 2.906 2.906 2.906 2.906 2.906 2.007	EMOTICAL EMO	Q2 Q2 Q3 Q3 Q4 Q4 Q5 Q5 Q5 Q5 Q6 Q6 Q6 Q7 Q6 Q7 Q6 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7 Q7
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26 56 56 56 56 56 56 56 56 56 56 56 56 56	296. PLT.1  216. P	2.185 2.906 2.906 2.906 2.906 2.907 2.047 2.018 2.018 2.019	EMOTICAL EMO	Coli Menne and Variable Ge  Variable Ge
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MANDONA GEA TO QEE BY Q2 (1,2) Q7 (1,3).

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Variable Q6Q	CODE	INFLATION RATE	Std. Dev.	n
Q2	no expor			
Q7 Q7 Q2	GERMAN ENGLISH EXPORTS	2.727 2.929	.839 .737	33 85
	German Englise	2.750 2.963	.842 .759	32 27
For entire sample	.0	2.864	.779	177
Variable Q6R	CODE	COST & AVILABILITY O	F WASTE DISP Std. Dev.	OSAL H
Q2 Q7 Q7	DO EXPOR CERNAN ENGLISE	2.121 2.859	.992 .560	33 85
Q2 Q7	EXPORTS	2.125	.907	32
Q7 For entire sampl	eegli <i>s</i> h	2.593 2.548	.747 .818	27 177
Variable Q68	CODS	COST & AVAILABILITY	OF EMERGY SU	PPLY
Q2	EO EXPOR			
97 97	english	2.606 2.882	.747 .565	33 65
Q2 Q7 Q7	exports Gerhan English	2.688 2.852	.896 .864	32 27
For entire sampl		2.791	.720	177
Variable Q67		INFO ABOUT NEW EC RE		
FACTOR Q2	CODE	Kean	Std. Dev.	ы
Q7 Q7	CERMAN ENGLISE	2.879 2.776	.960 .807	33 85
Q2 Q7	EXPORTS GERMAN	3.094	.810	32
Q7 For entire sampl	english 6	2.889 2.870	.892 .853	27 177
Variable Q60		INFO ABOUT PRICING S	TRUCTURES IN	OTHER R
PACTOR	CODE		Std. Dev.	H .
Q2 Q7 Q7	EN EXPOR GERMAN ENGLISH	2.939 2.862	.966 .837	33 65
Q2 Q7 Q7	EXPORTS GERMAN ENGLISH	2.813 2.926	.965 .874	32 27
For entire sampl Variable Q6V	•	2.887 INFO ABOUT PRODUCTS	.885 TH OTHER SC	177
FACTOR	CODE		Std. Dev.	B
02 07 07	EO EXPOR GERMAN ENGLISE	3.242 2.988	.902 .809	33 85
Q2 Q7	EXPORTS GERMAN	2.938	1.014	32
Q7 For entire sample	english •	2.852 3.006	.864 .876	27 177
Variable Q6W		AIMIN. & ACCOUNT. PR	OCED. TO EC	STANDARD
FACTOR	CODE		Std. Dev.	8
Q2 Q7 Q7	GERMAN GERMAN ENGLISE	2.879 2.741	.740 .742	33 85
Q2 Q7	EXPORTS GENEAR	2.844	.767	32
Q7 For entire sample	english B	2.667 2.774	.784 .750	27 177
Variable Q6E FACTOR	CODE	EXISTING LEGAL REGUL Moan	ATIONS Std. Dev.	н
Q2 Q7 Q7	SO EXPOR GERMAN ENGLISH	2.394 2.694	1.088	33 85
<b>0</b> 2	EXPORTS			
Q7 Q7 For entire sample	GERMAN ENGLISH	2.281 2.667 2.959	.888 1.240 1.038	32 27 177
	· •			
Variable Q6Y FACTOR	CODE	CO-OPERATION/FLEXIBI	Std. Dev.	MAL AUT E
Q2 Q7 Q7	ed Expor Gerhan English	2.788 2.835	.600 .784	33 85
Q2 Q7	EXPORTS GERHAN	2.375	.751	32
Q7 For entire sample	ENGLISH	2.963 2.763	.854 .776	32 27 177

Univariate F-tests with (1,173) D. F. Variable Hypoth. 88 Error 88 Hypoth. MS Error MS 3.58425 108.94266
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.00183 90.78627
.18410 118.64253
.46975 101.24398
.45675 103.63922
.00746 137.87237
.52969 151.00802
.36574 131.65112
.00279 118.69469
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1015.00184 120.71307 1015.00184
928.53350 108.27433 928.53350
1401.17305 90.76627 1401.17305
1194.27371 118.64253 1194.27371
1380.26761 101.24398 1380.26761
1467.20568 105.63922 1467.20568
1524.67040 137.87237 124.67040
1459.45298 151.00802 1459.45298
1427.86400 131.06112 1427.86400
1568.96502 118.69469 1568.96502
1121.42431 118.99265 1121.42431
1251.80709 121.73096 1251.80709
1171.39367 105.08489 1171.39367
852.19688 97.83955 852.19688
1102.00389 88.98472 1102.00589
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FIGIOR.

- A94 -

#### Appendix 5

#### **Graphical Illustrations of Results of Survey 3**

Figure 6.1.	Type of Establishment
Figure 6.2.	Size of Establishment
Figure 6.3.	Years at location
Figure 6.4.	UK SMEs: Main Activities/Main Product Groups
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Figure 6.8.	German SMEs: What is exported to where?
Figure 6.9.	UK South West SMEs: What is imported from where?
Figure 6.10.	German SMEs: What is imported from where?
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Figure 6.12.	Dependence of Export-Activity on the Age of the Establishment
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Figure 6.14.	Size of Establishment
Figure 6.15.	Years at location
Figure 6.16.	UK SMEs: Main Activities/Main Product Groups
Figure 6.17.	German SMEs: Main Activities/Main Product Groups
Figure 6.18.	Main markets by Nationality
Figure 6.19.	Dependence of Export-Activity on the Size of the Establishment
Figure 6.20.	Dependence of Export-Activity on the Size of the Establishment
Figure 6.21.	Dependence of Export-Activity on the Age of the Establishment
Figure 6.22.	Dependence of Export-Activity on the Age of the Establishment
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Figure 6.24.	Companies' Main Product Groups
Figure 6.25.	Companies' Main Markets
Figure 6.26.	Type of Enterprise
Figure 6.27.	Size of Establishment
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Figure 6.30.	Product Life Cycles (export/non-export)
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Figure 6.32.	Reasons for increase in Production-capacity
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Figure 6.37.	Breakdown of Employees
Figure 6.38.	Type of latest New Product Development (by nationality)
Figure 6.39.	Type of latest New Product Development (by export-behaviour)

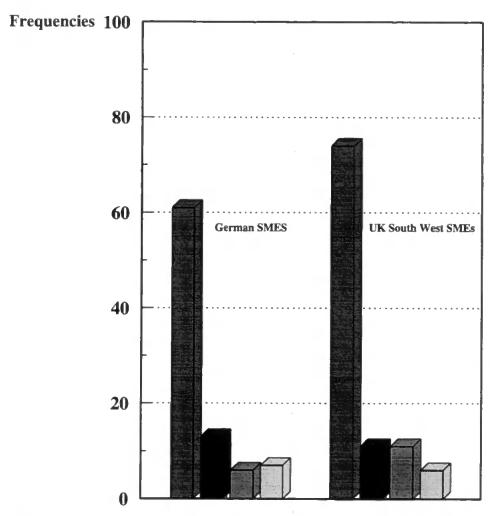
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  Test Name
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3.42070
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 Q60
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. . AMALYSIS OF VARIANCE -- DESIGN
 EFFECT .. Q2 Emltivariate Tests of Significance (S = 1, M = 12 , N = 73 )
 Test Name
                                         Value Approx. F Bypoth. DF
                                                                                                                   Error DF Sig. of F
 Pillais
Botellings
Wilks
                                          .15116
.17808
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                                                              1.01367
1.01367
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                                                                                              26.00
26.00
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                                          .15116
```

INDUSTRIAL POLICY

Figure 6.1.

# Type of Establishment

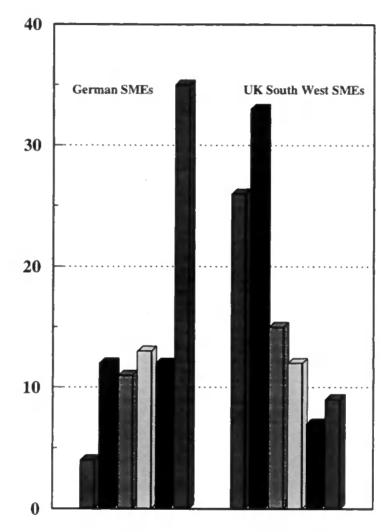


Country	German SMES	UK South West SMEs
Single Site Business	61 (70.1%)	74 (72.5%)
Headquarters Unit	13 (14.9%)	11 (10.8%)
Branch/Subsidiary/national	6 (6.9%)	11 (10.8%)
Branch/Subsidiary/international	7 (8.0%)	6 (5.9%)
Total:	87 (100.0%)	102 (100.0%)

Figure 6.2.

## **Size of Establishment**

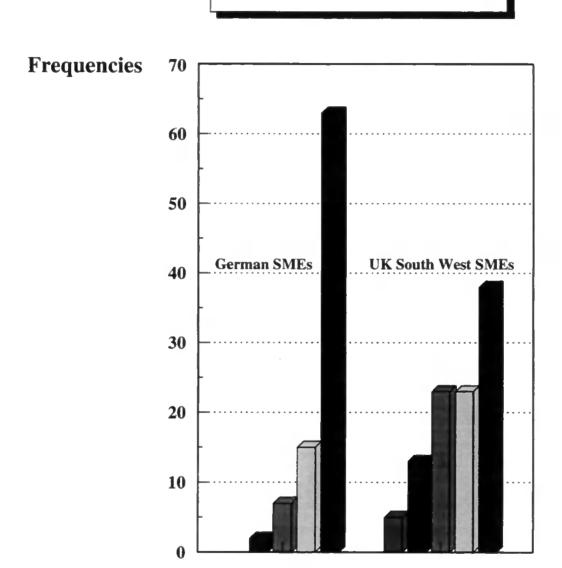
#### Frequencies



	German SMEs	UK South West SMEs
1-4 employees	4 (4.6%)	26 (25.5%)
5-24 employees	12 (13.8%)	33 (32.4%)
25-49 employees	11 (12.6%)	15 (14.7%)
50-99 employees	13 (14.9%)	12 (11.8%)
100-199 employees	12 (13.8%)	7 (6.9%)
more than 200 employees	35 (40.2%)	9 (8.8%)
Total:	87 (100.0%)	102 (100.0%)

Figure 6.3.

## Years at location



		German	SMEs	UK South We	st SMEs
less than 1 year		0	(0%)	5	(4.9%)
1-4 years		2	(2.3%)	13	(12.7%)
5-10 years		7	(8.0%)	23	(22,%)
11-19 years		15	(17.2%)	23	(22.5%)
more than 20 years		63	(72.4%)	38	(37.3%)
Т	otal:	87	(100.0%)	102	(100%)

Figure 6.4.

### **UK SMEs: Main Activities/Main Product Groups**

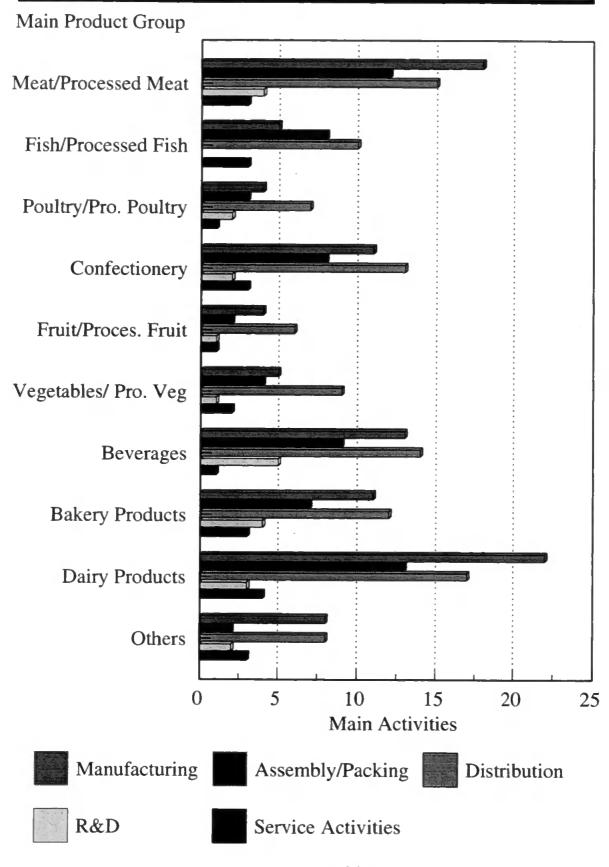


Figure 6.5.

### German SMEs: Main Activities/ Main Prod. Groups

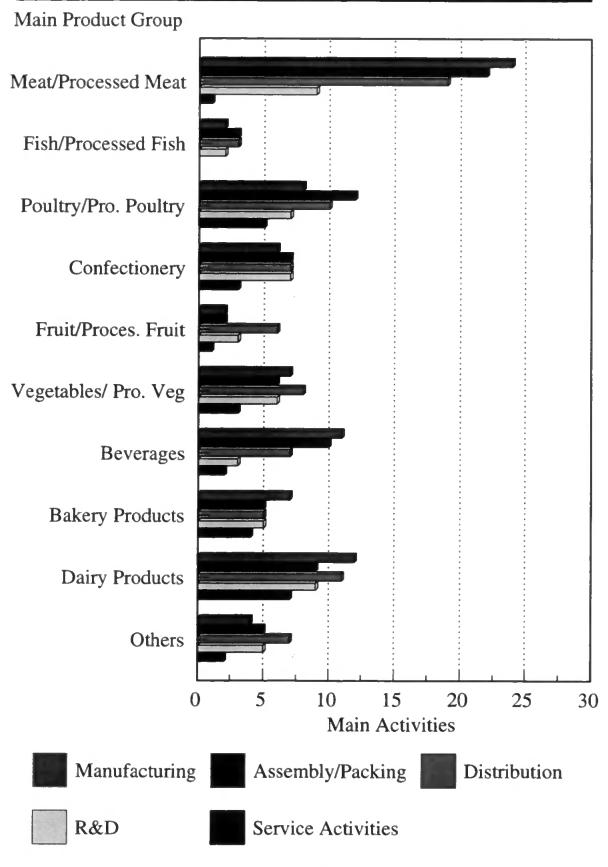
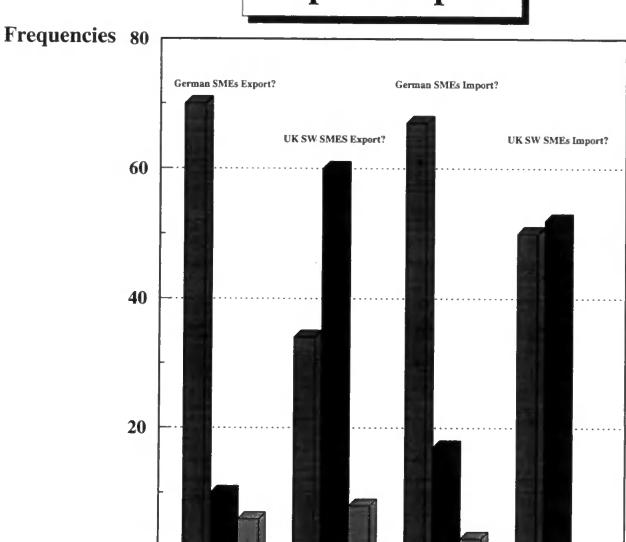


Figure 6.6.

# Import/Export



	German SMEs Export?	UK SW SMES Export?	German SMEs Import?	UK SW SMEs Import?
Yes	70	34	67	50
No	10	60	17	52
Intend to	6	8	3	0
Total:	86	102	87	102

Figure 6.7.

#### **UK South West SMEs: What is exported to where?**

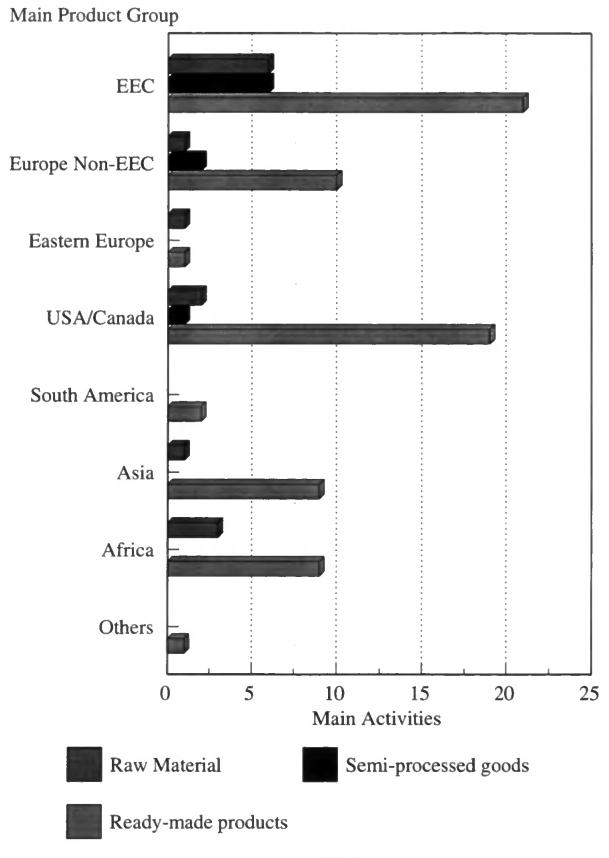


Figure 6.8.

#### **German SMEs: What is exported to where?**

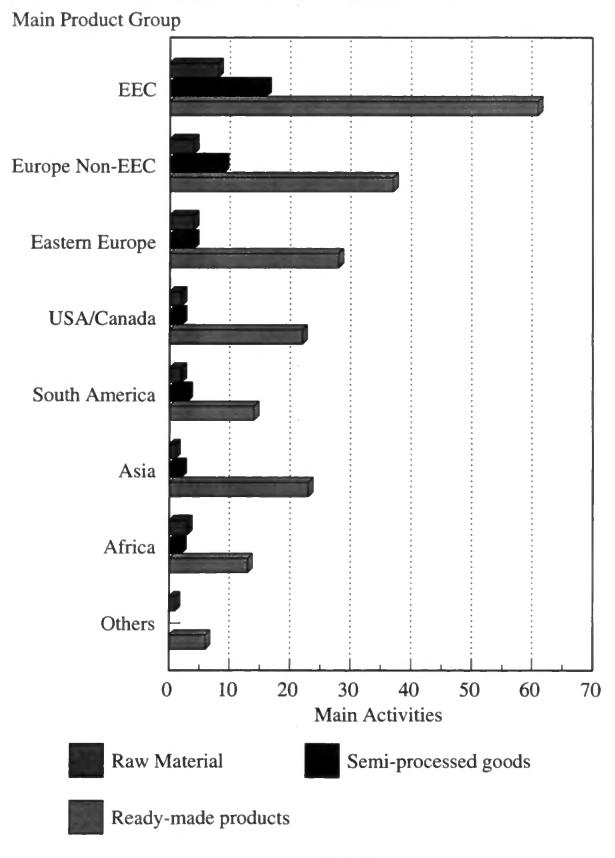


Figure 6.9.

#### UK South West SMEs: What is imported from where?

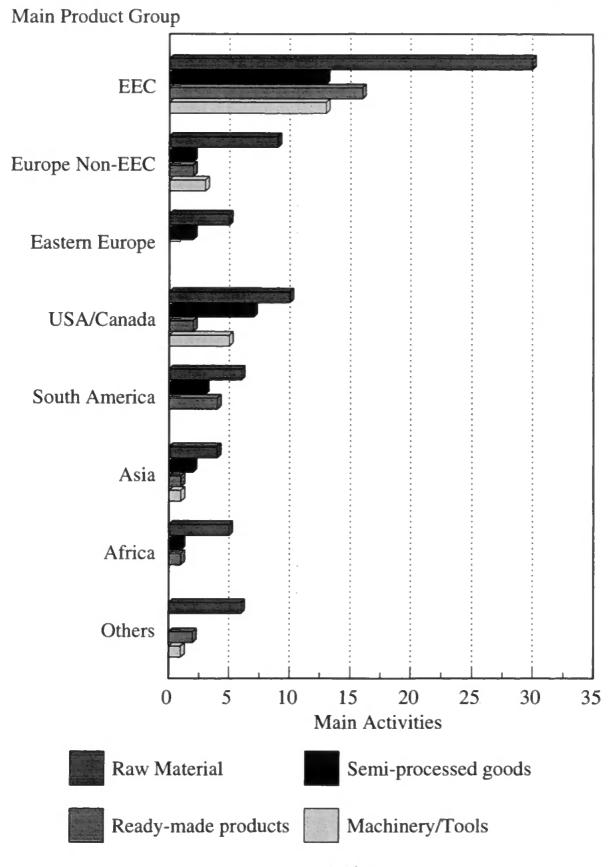


Figure 6.10.

#### German SMEs: What is imported from where?

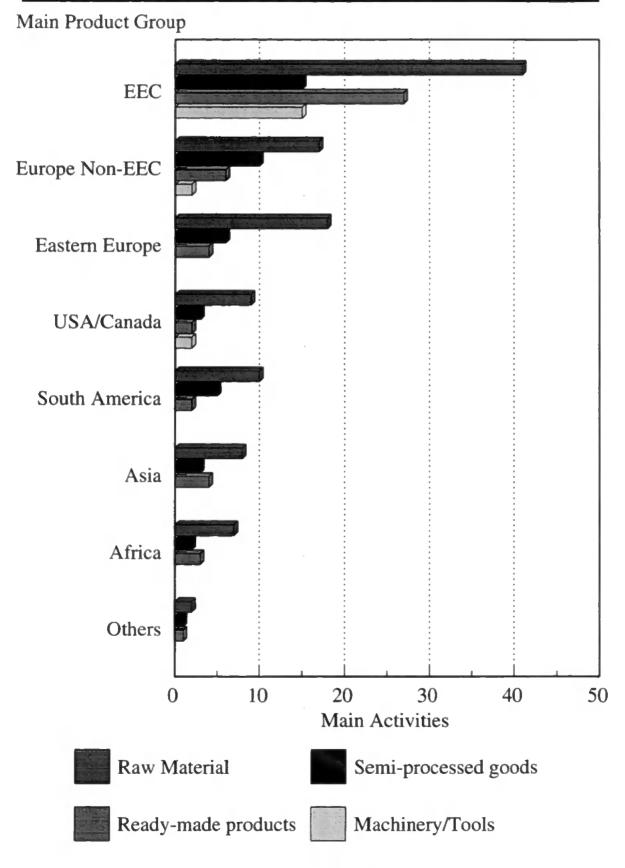
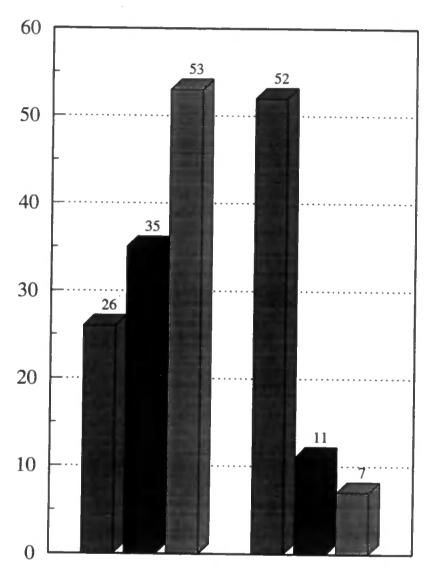


Figure 6.11.

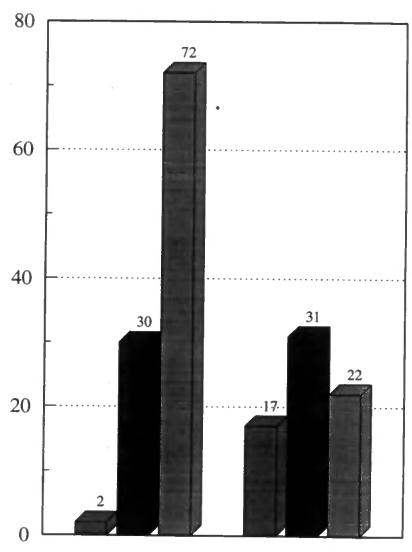
# Dependence of Export-Activity on the Size of the Establishment



	Exporting	Non-Exporting
1-24 employees	26	52
25-99 employees	35	11
100-200+ employees	53	7
	114	70

Figure 6.12.

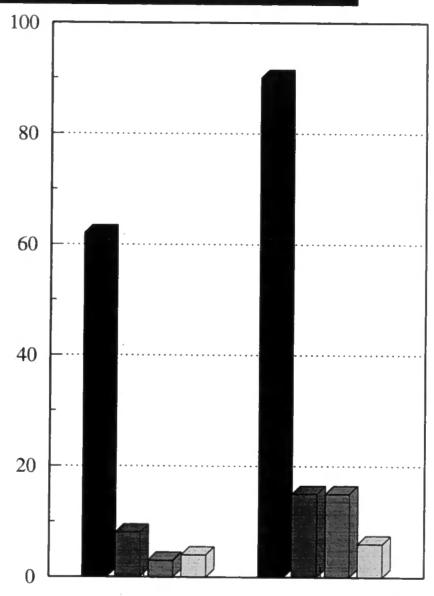
# Dependence of Export-Activity on Age of the Establishment



	Exporting	Non-Exporting
1-4 years	2	17
5-19 years	30	31
more than 20 years	72	22
	104	70

Figure 6.13.

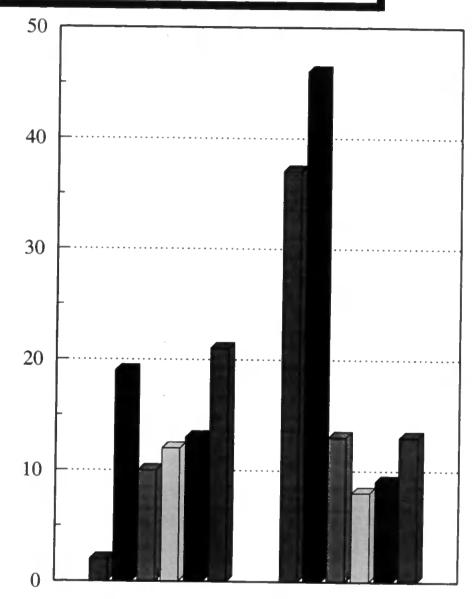
### **Type of Establishment**



	German SMEs	UK South West SMEs
Single Site Business	62	90
Headquarters Unit	8	15
Branch/Subsidiary/national	3	15
Branch/Subsidiary/international	4	6
Total	77	126

Figure 6.14,

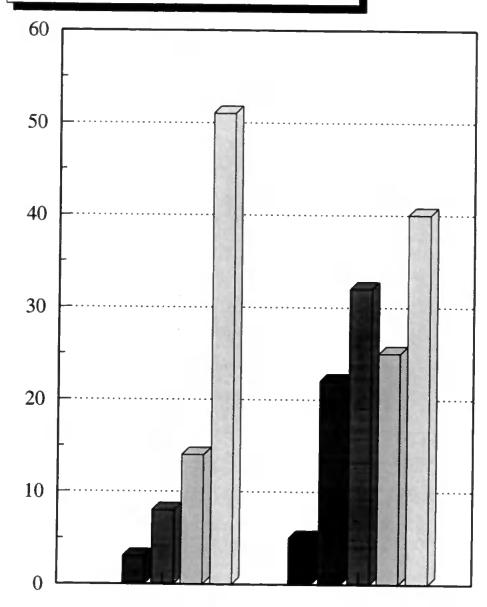
#### Size of Establishment



	German SMEs	UK South West SMEs
1-4 empl	2	37
5-24 empl	19	46
25-49 empl	10	13
50-99 empl	12	8
100-199 empl	13	9
200+ empl	21	13
Total:	77	126

Figure 6.15.

#### **Years at Location**



	German SMEs	UK South West SMEs
1 year	0	5
2-4 years	3	22
5-10 years	8	32
11-19 years	14	25
20+ years	51	40
Total:	76	124

Figure 6.16.

#### **UK SMEs: Main Activities/Main Product Groups**

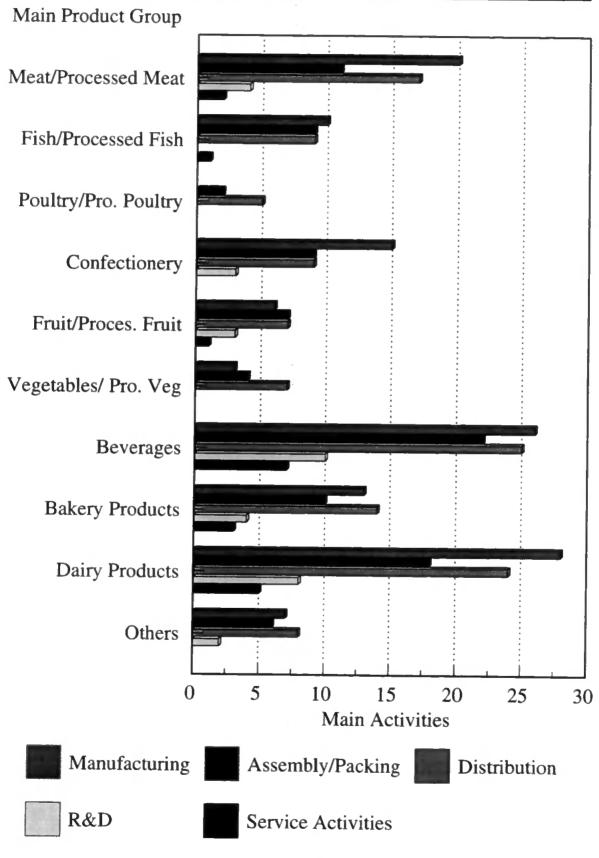


Figure 6.17.

#### German SMEs: Main Activities/ Main Prod. Groups

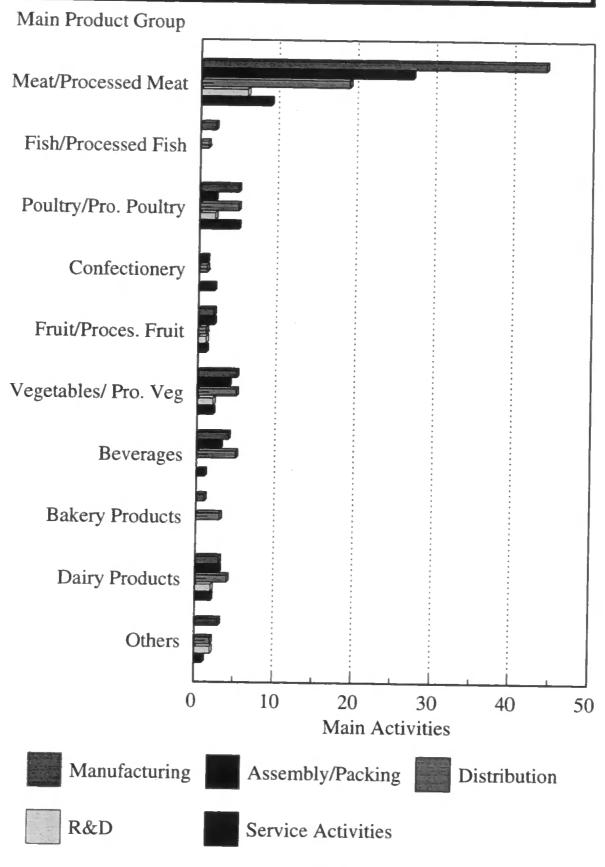
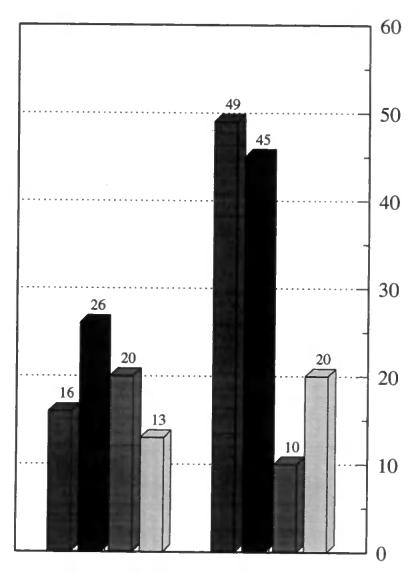


Figure 6.18.

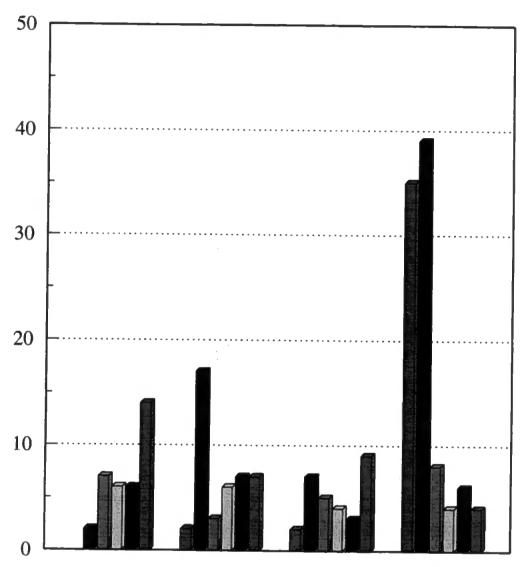
#### Main markets by Nationality



	German SMEs	UK South West SMEs
Regional Market	16	49
National Market	26	45
National & EC Market	20	10
Inside & Outside EC Market	13	20
Total:	75	124

Figure 6.19.

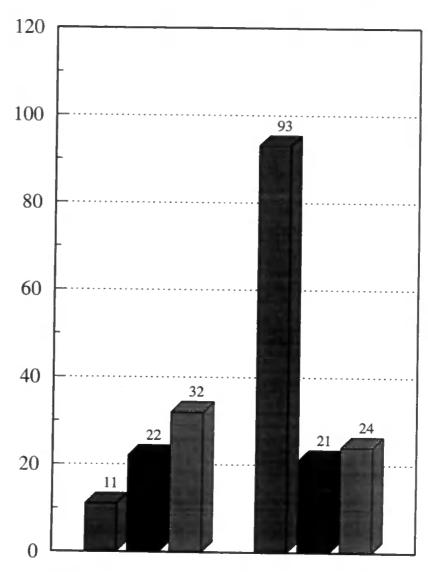
## Dependence of Export- Activity on Size of the Establishment by Country



	German SMEs (Exp.)	German SMEs (No-Exp)	UK South W. (Exp.)	UK South W. (No-Exp)
1-4 employees	0	2	2	35
5-24 employees	2	17	7	39
25-49 employees	7	3	5	8
50-99 employees	6	6	4	4
100-199 employees	6	7	3	6
Over 200 employees	14	7	9	4
Total:	35	42	30	96

Figure 6.20.

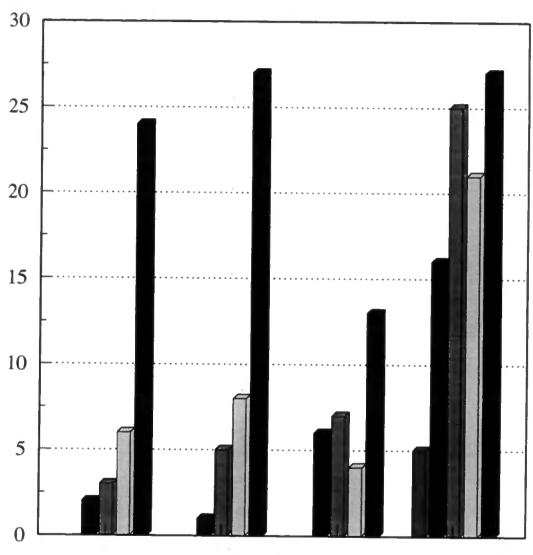
## Dependence of Export-Activity on the Size of the Establishment



	Exporting	Non-Exporting
1-24 employees	11	93
25-99 employees	22	21
100-200+ employees	32	24
Total:	65	138

Figure 6.21.

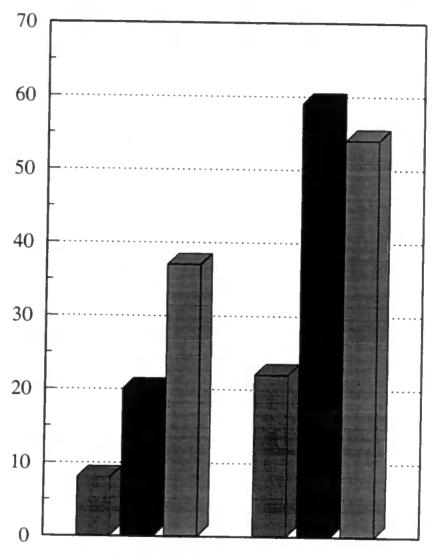
# Dependence of Export-Activity on Age of the Establishment by Country



	German SMEs (Exp.)	German SMEs (No-Exp)	UK South W. (Exp.)	UK South W. (No-Exp)
l year	0	0	0	5
2-4 years	2	1.	6	16
5-10 years	3	5	7	25
11-19 years	6	8	4	21
Over 20 years	24	27	13	27
Total:	35	41	30	94

Figure 6.22.

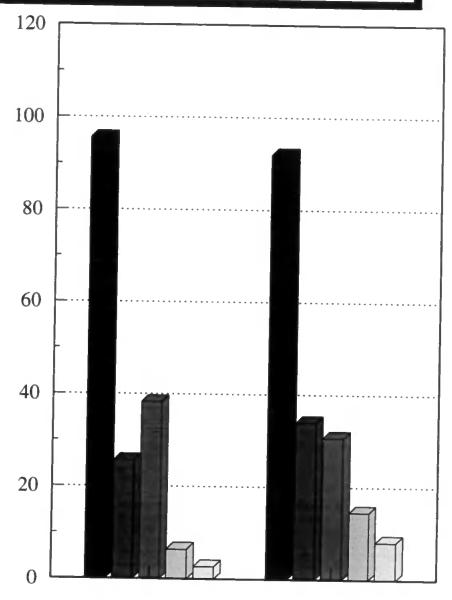
# Dependence of Export-Activity on Age of the Establishment



		Exporters	Non-Exporters
1-4 years	Tomorbio des	. 8	22
5-19 years		20	59
20+ years		37	54
Total:		65	135

Figure 6.23.

### Companies' Main Activities

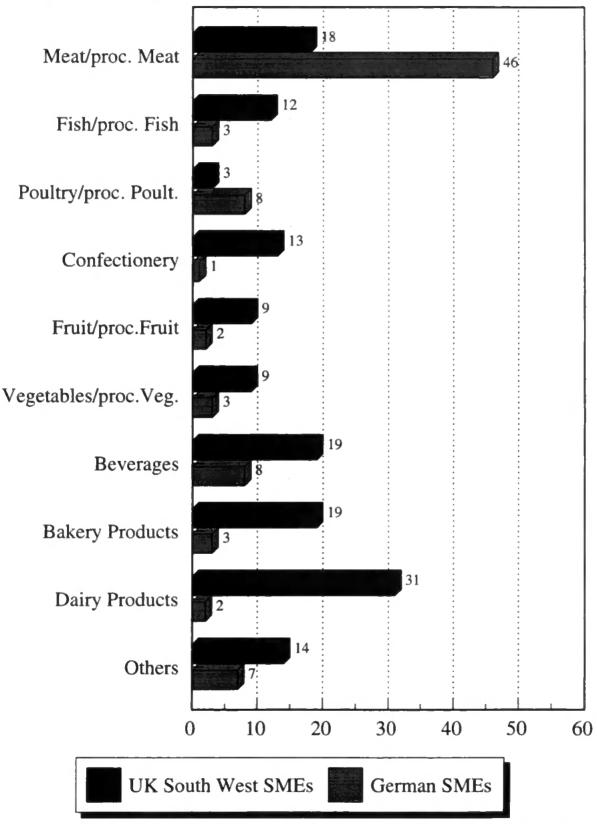


	 UK South West SMEs	German SMEs
Manufacturing	95.5 %	91.9 %
Assembly	25.5 %	33.9 %
Distribution	38.2 %	30.6 %
R & D	6.4 %	14.5 %
Service Activities	2.7 %	8.1 %

Note: Companies could tick more than one possibility, therefore column totals larger than 100%

Figure 6.24.

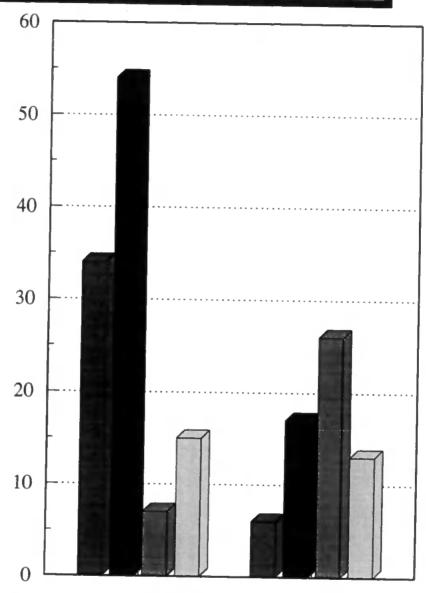
#### **Companies' Main Product Groups**



Note: Companies could tick more than one possibility, therefore totals for each are higher than actual number of respondents

Figure 6.25.

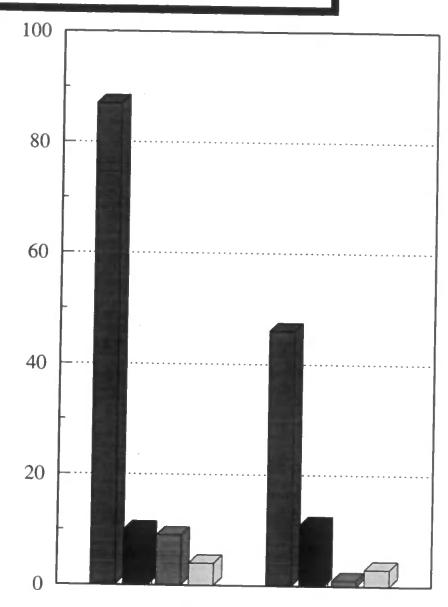
### Companies' Main Markets



	UK South West SMEs	German SMEs
Regional Markets	34	6
National Market	54	17
National & EC Market	7	26
Nat.,inside & outside EC	15	13

Figure 6.26.

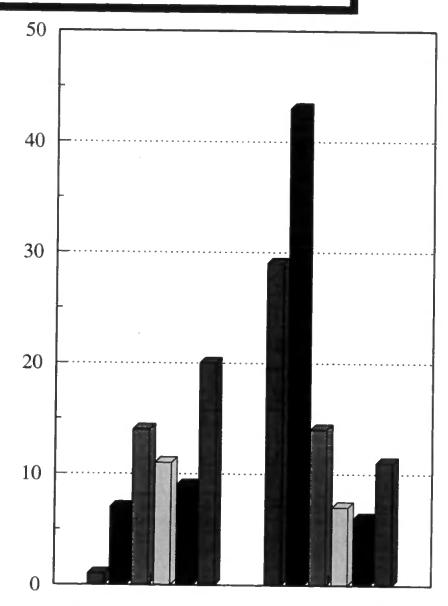
### Type of Enterprise



	UK South West SMEs	German SMEs
Single Site Business	87	46
Headquarters Unit	10	11
Subsidiary/Branch/National	9	1
Subsidiary/Branch/International	4	3

Figure 6.27.

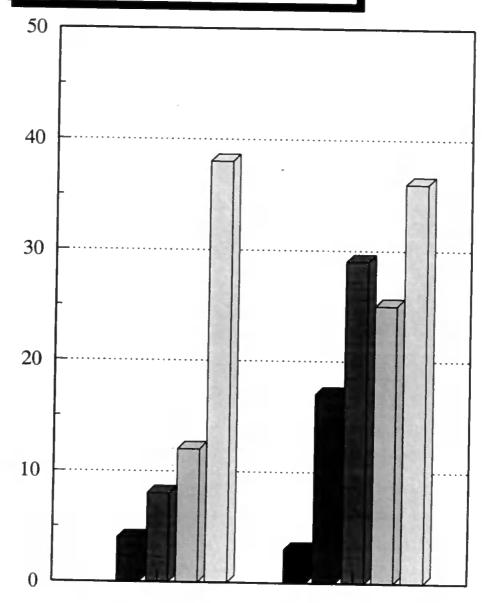
#### Size of Establishment



	German SMEs	UK South West SMEs
1-4 employees	1	29
5-24 employees	7	43
25-49 employees	14	14
50-99 employees	11	7
100-199 employees	9	6
200+ employees	20	11
Total:	62	110

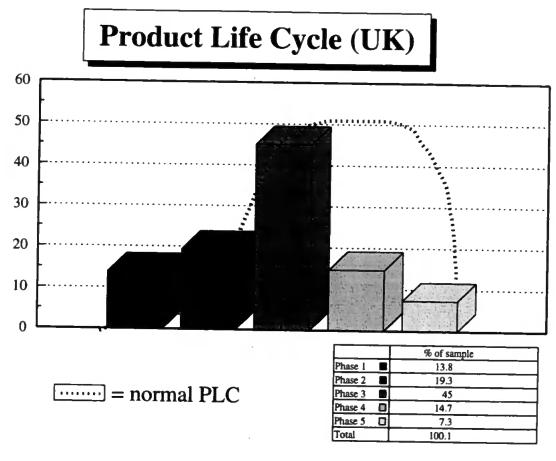
Figure 6.28

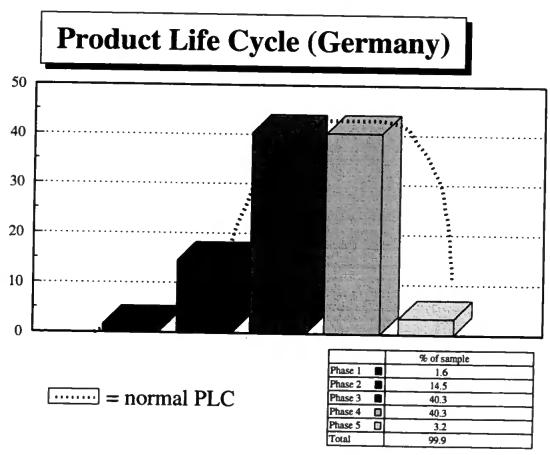
### **Years at Location**

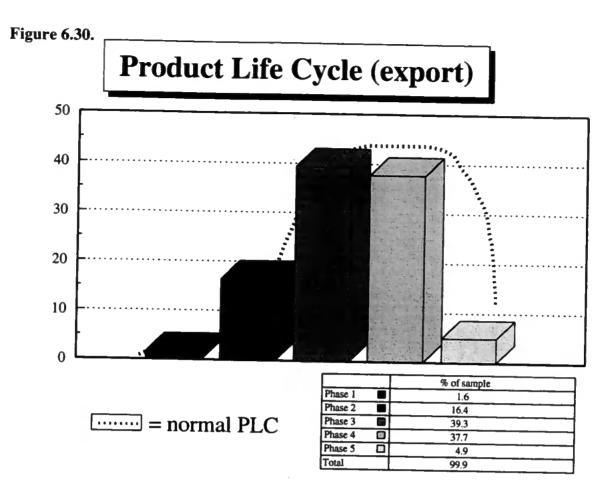


		German SMEs	UK South West SMEs
1 year		0	3
2-4 years		4	17
5-10 years		8	29
11-19 years		12	25
20+ years		38	36
Total:		62	110

Figure 6.29.







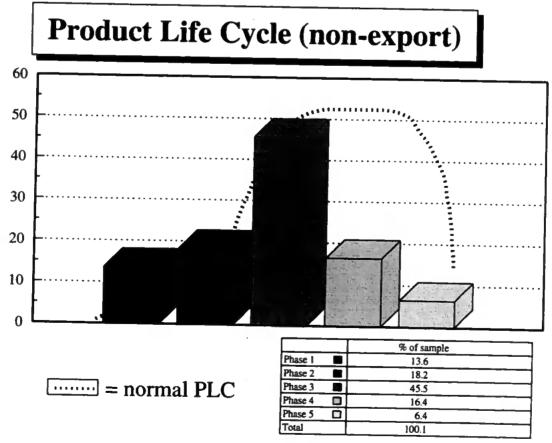
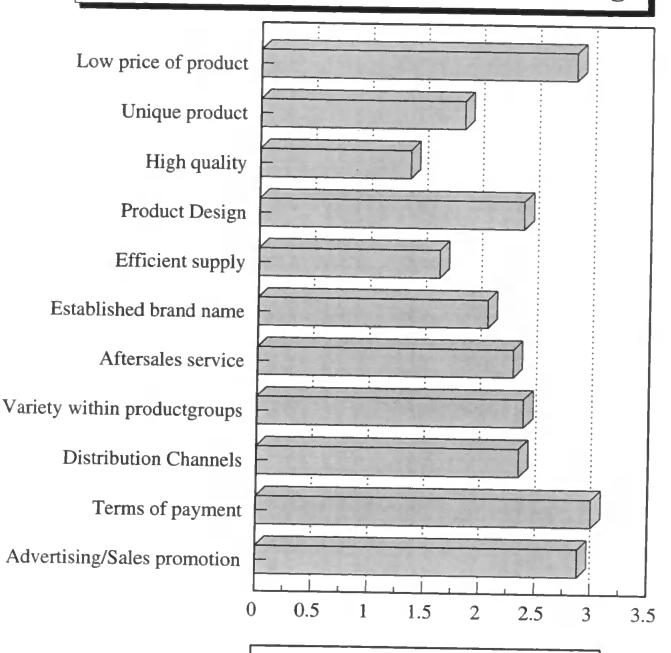


Figure 6.31.

#### **Factors providing Competitive Advantage**

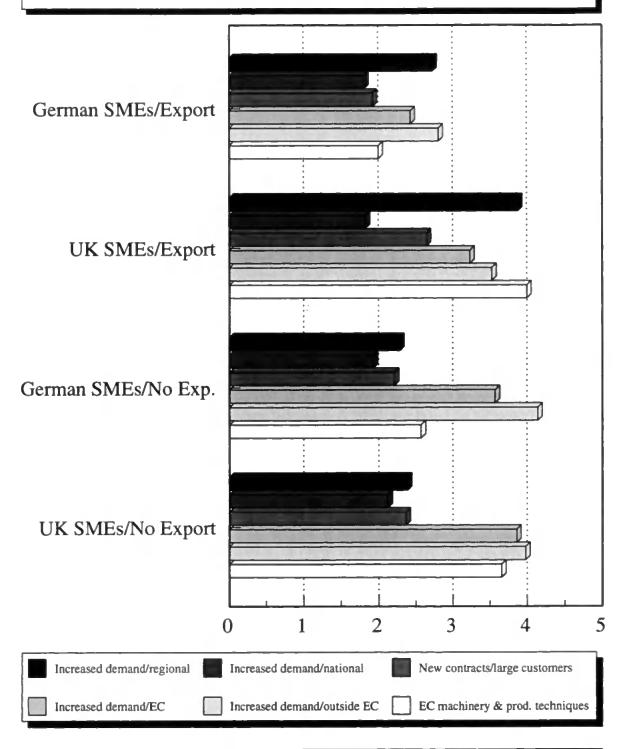


#### Index:

- 1 = Strong competitive advantage
- 2 = Some competitive advantage
- 3 = Little competitive advantage
- 4 = No competitive advantage

Figure 6.32.

#### Reasons for increase in Production-capacity

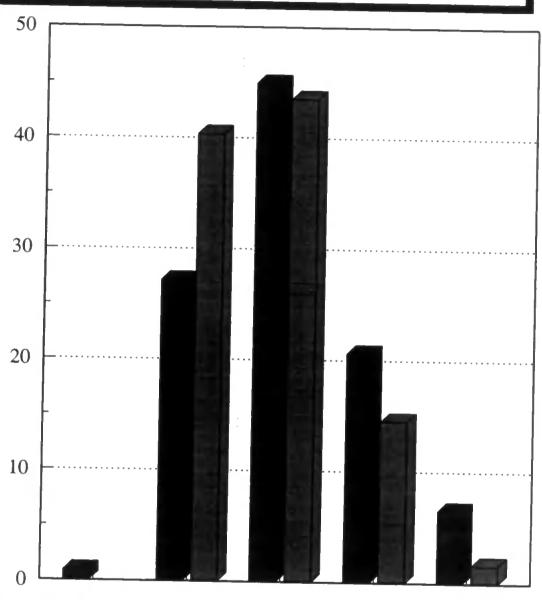


#### Index:

- 1 = Very important
- 2 = Important
- 3 = Neither important nor unimportant
- 4 = Unimportant
- 5 = Not at all important

Figure 6.33.

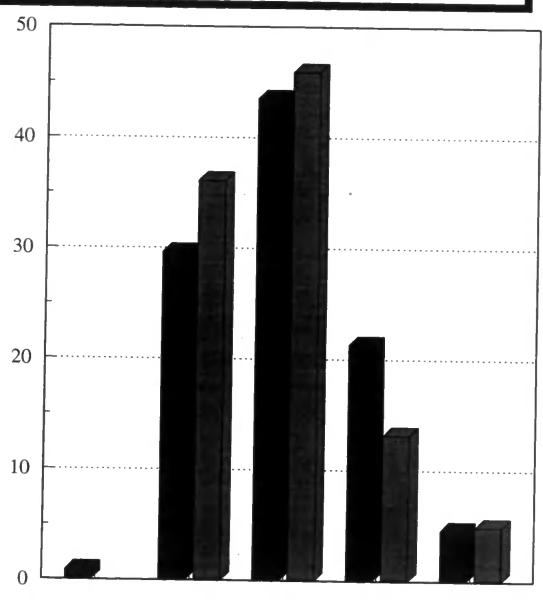
### Age of Production Machinery



	Up to 1 year old	Between 1-4 years	Between 5-9 years	Between 10-20 years	over 20 years old
UK SME3	0.9 %	27.1 %	44.9 %	20.6 %	6.5 %
German SMEs	0.0 %	40.3 %	43.5 %	14.5 %	1.6 %

Figure 6.34.

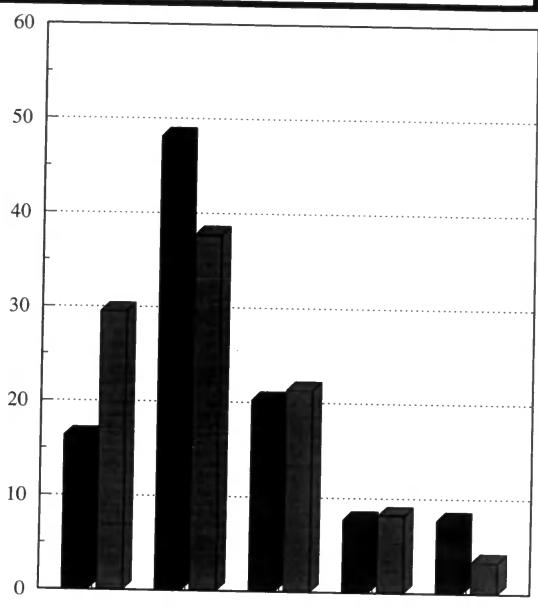
### Age of Production machinery



	within last year	Between 1-4 years	Between 5-9 years	Between 10-20 years	over 20 years ago
Non-exporters	0.9 %	29.6 %	43.5 %	21.3 %	4.6 %
Exporters	0.0 %	36.1 %	45.9 %	13.1 %	4.9 %

Figure 6.35.

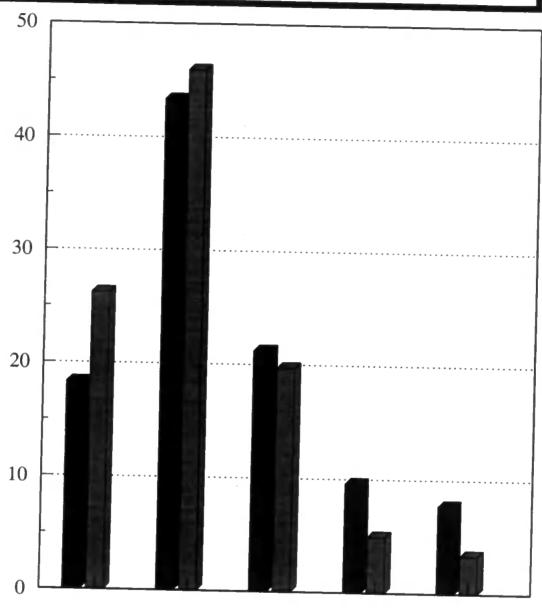
### Latest change in Production Technology



	within last year	Between 1-4 years	Between 5-9 years	Between 10-20 years	over 20 years ago
UK SMEs	16.3 %	48.1 %	20.2 %	7.7 %	7.7 %
German SMEs	29.5 %	37.7 %	21.3 %	8.2 %	3.3 %

Figure 6.36.

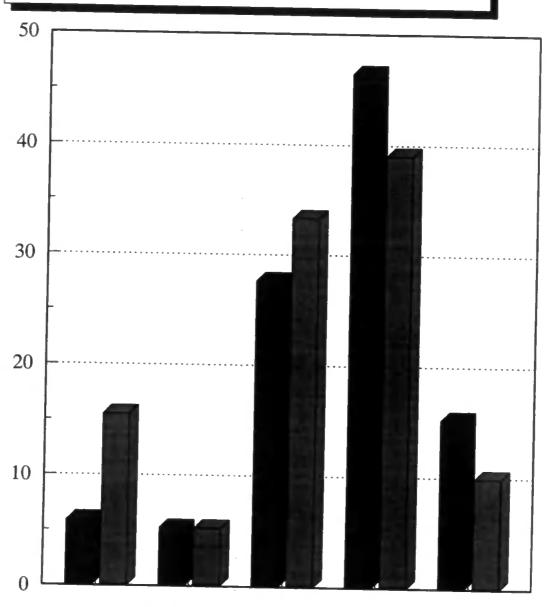
### Latest change in Production Technology



	within last year	Between 1-4 years	Between 5-9 years	Between 10-20 years	over 20 years ago
Non-exporters	18.3 %	43.3 %	21.2 %	9.6 %	7.7 %
Exporters	26.2 %	45.9 %	19.7 %	4.9 %	3.3 %

Figure 6.37.

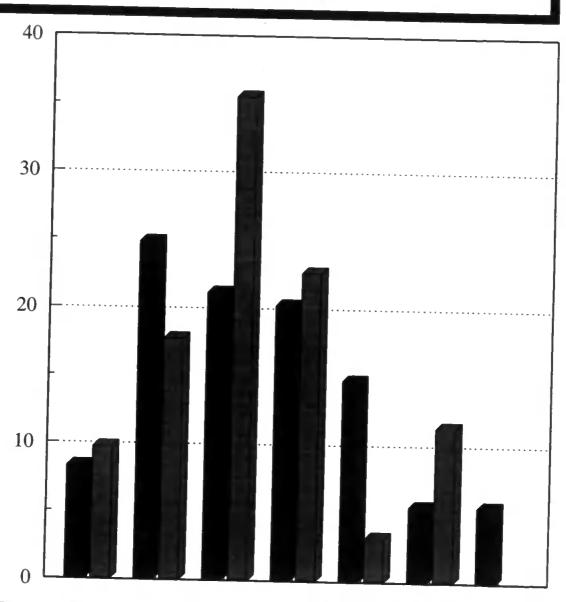




	Managerial		Skilled manual	Semi/unskil. manual	admin/cleric/secr.
German SMEs	5.9	5.2	27.6	45.4	15.2
UK SMEs	15.5	5.2	33.3	39.0	9.9

Figure 6.38.

# Type of latest New Product Development by nationality

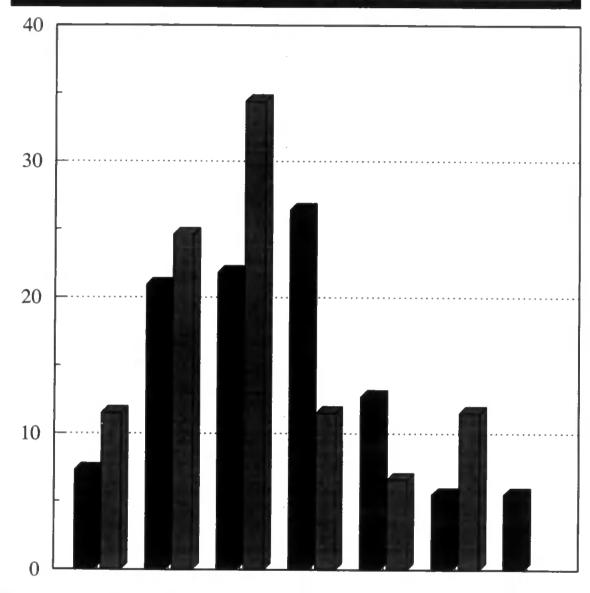


	Prod. new to world	Prod. new to company	Improved performance	Increase breakly of	Miner improvements	Emprovenums to red	Not applicable
UK Sowh West SMEs	8.3	24.8	21.1	20.2	147	5.5	5.5
Georgian SMEs	9.7	17.7	35.5	22.6	32	113	0.0

Figure 6.39.

#### Type of latest New Product Development

by export-behaviour



	Prod. new to world	Prod. new to company	Improved performance	lecroase breadth of	Minut improvements	Uniprovements to red	Not applicable
Non-Export	73	20.9	21.8	26.4	12.7	5.5	3.5
Export	11.5	24.6	34.4	11.5	6.6	11.5	0.0