# An Empirical Study into UK Customer Expectations of Dining Out in Relation to Meal Cost 

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# An Empirical Study into UK Customer Expectations of Dining Out in Relation to Meal 

 CostBy

Christina R. E. Westhead

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

## Doctor of Philosophy

School of Tourism and Hospitality
Plymouth Business School

# An Empirical Study into UK Customer Expectations of Dining Out in Relation to Meal Cost 

Christina R. E. Westhead


#### Abstract

The continued growth of the UK dining out industry, and the unceasing trend in popularity for customers to spend time and money eating outside the home, has led to an increase in the number of dining out establishments, and competition between businesses. Although there have been studies examining aspects of the restaurant industry and food consumption outside the home, very little research has looked specifically at customer expectations. Therefore, this thesis examines customer expectations associated with the meal experience in relation to the varying costs of dining out opportunities. In addition, the study reflects on customers' socio-economic characteristics combined with their perception of differing anticipated costs in order to provide customer typologies, each with varying expectations of the dining out experience. It is intended that by focussing on and amalgamating the areas of expectation, cost and socio-economic factors, the conclusions obtained will contribute to a new understanding relating to customer expectations. The study invited e-subscribers of Delicious Magazine's national website, to participate in quantitative research regarding both expectations of dining out and social factors. By examining the data from a large cohort study ( 2200 participants) evidence of behavioural patterns and opinions has emerged. The research established that there are four types of customer that can be identified through their initial choice of restaurant owing to the restaurant's perceived cost classification. Each customer group identified, not only has overarching expectations of the dining out experience, but through identifying socio-economic characteristics of each group, it is also possible to have insight into their collective behaviours. The original contribution outputs that have been generated from the research are a practical typology and a theoretical model. Although dining out establishments are facing pressure from the emergence of increasing numbers of competitors and the current economic climate, it has been established, through the research, that, in particular, restaurants often bestow little attention on customer requirements, instead 'food', 'aesthetics' and 'staff' often take precedence. However, aspects relating directly to customers, such as, 'repeat business' and 'positive word of mouth' are core components to a hospitality organisation's success. Understanding customers further can only enhance and provide structure and direction for restaurant businesses. Therefore, implementing the practical customer typology could focus a restaurant business on considering their customer group and their anticipated requirements. This research is a foundation into an original combined study area and has induced further research concepts that may also encourage other academics to embark on this area of study. This research may then develop as a subject field and cascade into understandings that could be beneficial to the hospitality industry.


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Missed and still loved very much.

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## 1 Introduction

The main purpose of this study is to ascertain and understand customer ${ }^{1}$ expectations ${ }^{2}$ of dining out experiences and how these expectations are influenced by the customer's circumstances. Furthermore, the study also aims to establish that not all restaurants ${ }^{3}$ are perceived in the same way by different customers and that customer expectations can change when being projected onto differing dining establishments.

To understand customer expectations thoroughly, it is necessary to recognise that expectations impact upon decisions being taken by customers in many different "consumptions settings" (Oliver and Winer, 1987). As Oliver and Winer (1987) discuss, expectation formation falls into the fields of consumer psychology, economics and behavioural decision theory, however, the concept of expectations is a largely neglected area in consumer behaviour research and no endorsed expectations framework exists.

There are a number of differing opinions (see amongst others, Schmalensee, (1976); Macht, Meininger and Roth, (2005); Clow, Kurtz, Ozment and Ongs, (1997); Cardello (1995) with regard to what constitutes 'expectations' and authors from different contexts of research, such as, economics and psychology (who have different study outcomes to address) modify what expectations are and how they are created. Furthermore, how much 'content' expectations include also differs with some authors (see amongst others; Oliver and Burke, (1999); Teboul, (1991); Olson and Dover,

[^0](1976) who combine choice, post-purchase evaluations, brand choice and satisfaction as part of expectation theory. Additionally, Fishbein and Ajzens (1975); Bettman (1979) and Tolman's (1932) work considers how expectations are formed, for example from experiences, the environment, observations and so on. Subsequently, as a starting point, it is necessary to define the parameters of 'expectations' within this thesis being set within the framework of 'customer behaviour'.

As dining out increases in the UK and potentially follows the same pattern as the USA, where $47 \%$ of food is eaten outside of the home (Binkley, 2006), it is necessary for the hospitality industry to develop a thorough understanding of restaurant customers. Although a large body of work exists covering the more 'traditional' aspects of dining out, such as, the food, the service and so on (see amongst others work by Bitner, 1990, 1992; Mehrabian and Russell, 1974) little has been established about what customers' are actually seeking from their dining out experiences - their expectations. The 'expectation' sits prior to the experience and the satisfaction, or dissatisfaction with the dining out event. However, in order to provide a satisfying experience the presumptions by restaurateurs about customer expectations needs to be removed and instead replaced with evidenced and recognised criteria. In an increasingly competitive marketplace where customers have choice and routes to voice their opinions openly, such as, internet forums, understanding the customer has become essential. Adding new information and a practical typology and a theoretical model to the area of customer research, with specific reference to dining out, is how this research has been positioned.

The Introduction Chapter (Chapter 1) aims to identify what is missing from the existing published research relating to customer expectations of dining out. As will be seen from the subsequent Literature Review Chapter (Chapter 2) there is extensive research
already in circulation regarding quality, service, the environment and intangibles all relating to the restaurant industry. In addition to these topics, there is research available on aspects linked to expectations, such as, satisfaction (as an outcome of expectations). However, what is missing from the research arena is information on what customer expectations are, in terms of who expects 'what' and 'why' when dining out. Soriano (2002: 1058) suggests that new research is required to "delve into the sources of expectations". Research areas, such as, customers, restaurant style, food and so on (see amongst others see Bitner, 1990; Cardello, 1995; Clow et al 1997; Pedraja and Yague, 2001; Tse and Wilton, 1998) already exist and many of these factors are ultimately communicated, or reflected in the meal cost. Therefore, determining customer expectations based on meal cost provides an approach that encapsulates the customers' requirement, as well as, the restaurant offering.

The Methodology Chapter follows on from the Introduction Chapter (Chapter 1, relating to Aim 1) and the Literature Review Chapter (Chapter 2, relating to Aim 1). The Methodology Chapter (Chapter 3) discusses the research considerations required to complete a quantitative investigation that provides information from a large (in comparison to much previous hospitality research) cohort. The Methodology Chapter is designed to provide a sound foundation for the research, as well as, being connected with Aim 2.

Aims and objectives $3 \mathrm{~b}, 4 \mathrm{c}, 5 \mathrm{~d}$ and 5 e are related to the data analysis outcomes following on from the quantitative investigation (Appendix 1). Clarifying meal cost (aim and objective 3a), customer expectations (aim and objective 4b) and the impacts of socio-economic factors (aim and objectives 5c and 5d) are initially analysed through both a discussion of the data (Chapter 4) and statistical analysis (Chapter 5).

Aim 6 of the study is to create a practical typology and a theoretical model of restaurant customers with relation to expectations, meal cost and socio-economic factors, as well as, understanding the characteristics that are typical for each of the customer groups. The practical typology and the theoretical model and their original contribution to new knowledge is the content of Chapter 6.

All of the findings are discussed in Chapter 7 in combination with existing theory. Chapter 7 explores the findings in the context of the aims and objectives for this study (Chapter 1). Conclusions regarding the outcomes and their impacts for both research and industrial avenues are presented in the final chapter, Chapter 8. The following sections of Chapter 1 explore the gaps that exist in current research with regard to customer expectations and deciphers many of the characteristics of customers that may influence expectations and bring evidence and rationale to the typology.

### 1.1 Socio-economic Impacts

What is evident from looking at models, such as, Robeldo's (2001) Expectations Management Model (Figure 1-1) is that although price is a contributor, there is no evidence of consideration of the factors that are affected by the customer's disposable monetary levels. Additionally, customers' living standards are affected in many ways by their personal wealth (see numerous reports, one example being, Office for National Statistics, 2006), which in turn could impact upon their outlook and their expectations. Although there are studies that show that the more affluent do eat out more (Mintel, 2004; Binkley, 2006) dining out is not, however, exclusive to this particular category of customer. Work by authors such as Binkley, (2006); Byrne, Capps Jr, and Saha (1998);

Kim and Geistfield (2003) has looked into sociological factors related to dining out and discussed aspects about dining outside the home in relation house size, age and the presence of children but all of the studies were focussed on American customers and in relation to deciding where to choose to eat instead of the expectations, or cost of the meal.

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Other customer factors also need to be enquired about in order to understand how lifestyle and varying combinations of factors can link to create specific groups (typologies) with similar expectations, that are applicable to each various cost sector of the restaurant industry. As Soloman (2009) notes (Table 1-1), satisfaction is important if a business is to avoid three potential courses of customer action, and if satisfaction is an outcome of meeting expectations this adds credence to the necessity for understanding customer expectations.

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With customer websites and forums being so popular, the third point within Table 1-1 could be a significant industry concern. Negative comments and complaints are often a result of customers trying to release their frustration, gain control of a situation, or even gain some sympathy (Evans, Jamal and Foxall, 2006). Ultimately customers need to release their cognitive dissonance. This is why avoiding causing upset to customers is important for businesses because it is natural for customers to react in some negative way towards the perpetrator of an incident.

### 1.2 Related Theories

'Expectation' is looked at by many research areas, such as, economics and management. Many theories at first glance may appear to be relating to expectations, however, some of these theories are not applicable to consumer behaviour in a dining out context. An example of this is Vrooms (1964) Expectancy Theory which claims that a person will decide to behave in a certain way because they are motivated in that manner due to the expected outcome. The motivation to behave in a certain way is driven by the desirability of the expected outcome (although the outcome is not the only factor that drives a person's behaviour). Although the principal of the theory would fit with customers who dine out, in fact, Expectancy Theory is tied to organizational behaviour
and motivation theories, not customer behaviour. Ultimately, Vrooms theory relates to motivation/performance and reward and is a management theory.

In fact there is no distinguishable theory that purely captures what dining out customers are expecting from their experience. What does exist extensively is considering expectations within the realms of service quality. Two paradigms exist - The disconfirmation paradigm (see amongst others: Bitner, (1990); Bolton and Drew (1991); Parasuraman, (1985) and the perception paradigm (see amongst others: Cronin and Taylor, 1992). Disconfirmation relates to customers evaluating service by comparing the service received against their expectations. Conversely, the perception paradigm considers that customers do not require expectations in order to evaluate perceived quality. However, Robledo (2001) highlights authors, such as, Oliver, (1980); Brown and Swartz, (1989); and Parasuraman, Berry and Zeithaml (1990) amongst others who recognise that "most researchers acknowledge that customers' have expectations and that they play a certain role as standards, or reference points used by consumers to evaluate the performance..." (Robledo, 2001:23). Much disconfirmation work is based on the Parasuraman, Zeithaml and Berry (1985) SERVQUAL model. Over time many researchers have adapted the model for their research, such as Knutson, Stevens and Patton (1995) who developed DINESERV from the original SERVQUAL model (even Parasuraman, et al (1990) refined their original model). Furthermore, as Robledo (2001) highlights, as expectations can be stable over short periods of time, it is not always, therefore, necessary for researchers to gather new expectations data to base new study evaluations on. Subsequently, existing models, or data are often used within developing research, as opposed to, incorporating new inputs.

Looking to general customer behaviour and buyer behaviour research produces a number of models and theories that will assist with understanding customer expectations specifically within a dining out context. The purpose of a model is to
provide a framework, or "a theoretical construction of phenomena that are thought to be interrelated and significant in influencing the outcome of a specific situational problem" (Chisnall, 1995: 191). Chisnall (1995) recognised that two types of buying behaviour models exist, with both being based on different principles. 'Monadic' models have a very simplistic rationale where the customer acts rationally and with understanding of all the options when purchasing. These types of theories, for example, the 'Perceived Risk Model' developed by Bauer and Cox in the 1960s, or 'Black Box' models (Mitchell, 1999), or decision process models as highlighted by Kotler's (1973) model do not consider, or accommodate how complex buying behaviours can be along with the multitude of influences that impact upon customers buying intentions.

Building on monadic models are those that Chisnall (1995: 202) describes as "multivariable models of buying behaviour". What distinguishes models of this nature is that they account for different sources of influence, such as, economic, socio-cultural and psychological impacts upon consumers, along with, whether the outcome will be to purchase (immediately or delayed), or reject what is being bought. Some of the most well-known models of buying behaviour are those developed by leading academics; Howard and Ostlund, Engel-Kollat-Blackwell, Nicosia and Andreasan. All of their models vary in complexity, however, each provides insight into the influencing elements of buying behaviours.

Howard and Ostlunds model was first developed in the 1960s but was then expanded and refined by Howard and Sheth (1969) and then amended again by Howard and Ostlund in 1973 (Chishall, 1995). Both the Howard and Sheth model and the later Howard and Ostlund model can be found extensively in related literature. The Howard Sheth theory of buyer behaviour explains consumer behaviour in terms of cognitive
functioning by considering the various social, psychological and marketing influences on consumer choice. The theory of buyer behaviour model is extensive (Figure 1-2) with regard to what is encompassed by the model.

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As Jackson (2005: 23) discusses, with reference to the Howard Sheth model, in order for any model to be usable models need to focus "a (relatively) limited number of specific relationships between key variables. Beyond a certain degree of complexity, it becomes virtually impossible to establish meaningful correlations between variables or to identify causal influences of choice".

The Engel-Kollat-Blackwell model (Figure 1-3) incorporates many items which influence customer decision making (Abdallat and El-Emam, 2007). The Engal-KollatBlackwell model (Figure 3) was finalised in the 1970s (Chishall, 1995) and encompasses aspects related to motivation which will impact upon the decision process. Furthermore, it includes what many other models lack, in terms of 'internalised environmental influences' and unanticipated circumstances. Nevertheless, even this model has had criticisms levied at it, not least, from those who consider understanding 'situation' to be important and necessary to define (Abdallat and El-Emam, 2007).

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The Nicosia model (Figure 1-4) focuses on the relationship between a business and its potential customers. The business communicates with consumers through marketing messages, for example, advertising. The anticipated response is that consumers will react to these messages by purchasing from the business (A\&M, 2001). There is a forward and backward effect reflected in the model because as much as the business may influence the customer through marketing strategies, the customer, in turn, influences the business through purchase.

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The Andreasan model was one of the first models relating to customer behaviour and the construction of the model is based on two considerations; that marketers 1] segment the market and 2] differentiate between products. This is not a regularly cited model in comparison to other well-known customer behaviour models, nevertheless, attitude formation and change brought about through marketing behaviours are important for understanding customer behaviours. However, what is noted about the Andreasan model is that it is assumed within the model that influence is unidirectional (Chisnall, 1995) and furthermore, attitudes and behaviour are not simplistic.

Monadic models do not suit the understanding of expectations of customers within the restaurant industry because of their lack of consideration for extended influences, which many authors, who write about restaurants and their impacts on customers consider to be core elements (See amongst others Auty 1992; Meiselman, Johnson, Reeve and Crouch 2000; Balzas, 2002). The multi-variable models that have been contemplated
in this section are of importance to this study as they are recognised as predictors and interpreters of buyer behaviour.

A more specific model that has been developed by Kalwani, Yim, Rinne and Sugita (1990) is a model that considers price from a customers' perspective. Ultimately the model does not look at expectations, however, it does provide some insight into customers perception of cost and generating expected prices. The purpose of the model was to understand how customers' choose alternatives within frequently purchased product categories. The authors found that price expectations are not a function of past prices but are also influenced by contextual variables. Influencers of price, such as, promotional activity, vouchers and so on, are very common place within the hospitality industry, and could certainly impact upon a customers' opinion and subsequently this is an area that Kalwani, Yim, Rinnie and Sugita (1990) recommend requires more investigation. Again, this demonstrates that although theories and models do exist with regard to expectations and price, no model, or concepts directly relate to breaking up price categories and defining specific customer expectations.

Considering generic customer behaviour models, there have been past studies that looked at the different models and authors, for example Erasmus, Boshoff and Rousseau (2001) have considered the merits and disadvantages of such models. Within their study, they quote Burns and Gentry (1990) who comment that 'general' customer decision-making models will not reflect accurate customer decisions. This is for a number of reasons as Erasmus et al (2001) discuss, such as, the inclusions and generalisations that the models incorporate. Additionally, adapting models that are buyer-behaviour models and using them for use within the consumer sciences, as
opposed to where Erasmus et al (2001) believe they should fit, that is, within marketing, is further taking the models out of context.

Although work into expectations does exist, it is predominantly tied in with service quality (see all disconfirmation studies) and the expectation element is sought within such research as a factor (along with perceptions) in order to provide a point of reference to produce a 'gap' (Robledo, 2001). What does not exist is any research, or models related to customers and/or purchasing that provide insight and understanding of customers, as segmented by their expectations and cost, in a dining out context.

### 1.3 Household Expenditure

The various groups contained within the UK Government socio-economic listings (Office for National Statistics, 2005c) are categorised through the use of the occupation of the highest earning member of the household. The occupation and the income are in many cases relative, which would account for a number of trends. For example, those in higher social classes eat out the most regularly of all the socio-economic groups (Mintel, 2004). Of those who eat out the most, those in younger age brackets, singles and people aged over 65, are the categories of people who form a significant part of regular diners (Mintel, 2004). Patterns of dining out relating to the group who eat out regularly show over a period of a month, $44 \%$ of the time a restaurant was chosen, $36 \%$ of the time a pub and the remainder were cafés and fast food outlets. The venue choice came down to a number of intentions - it was found that restaurants provided a meal to celebrate, socialise with friends, or have a special meal with a partner. Eating in pubs was cited as being a good place to socialise but, unlike restaurants, could provide better value for money, although not such a special setting. Cafés were seen as a place to meet
friends but with the distinct difference of being mainly a daytime venue, as well as, offering a faster service option. Fast food outlets provide quick meals like cafés but with a reduced socialising aspect (Mintel, 2004).

Customers clearly distinguish between different eating out venues. The main reasons different establishments are chosen is dependent upon customers reasons for visiting a certain restaurant, for example, a quick meal, or a celebration (Mintel, 2004). Ways in which many eating out establishments have been distinguished before has been through the nature of the service that they provide. This then indicates other factors, such as, the length of time a meal will take, and subsequently the time input from the customer, all of which can allude to the possible reasons that the customer may have initially chosen that type of eating establishment. However, what is not factored into the categorisation of eating out establishments are the variations of cost between them within the same eating out category. This is most prolific within the restaurant sector. Cost is linked to customer expectations (Oh, 1999), however, there are no findings of how expectations change with variations in cost and no answers to how expectations change when customers 'trade up or down' from their usual eating out budget.

### 1.4 The Meal Experience and Customer Expectations

It has been established that there is a relationship between the eating environment and how highly a meal is perceived. In the work of Meiselman, et al (2000) it was established that an eating environment that was evidentially impressive, subsequently influenced customers into rating the food more positively. When the same meal was produced for customers in a white table restaurant and a refectory, those eating the meal in the white table cloth restaurant, rated the meal more highly. Therefore, this would
indicate that it is important to have a high standard preconceived image conveyed to customers, because it appears that either little notice of the food is taken during eating, or other expectations form such a large part of judging the meal that they cannot be overcome by the food alone. However, from the research of Meiselman et al (2000) it was also shown that surpassing expectations has little effect on customer ratings of the meal experience.

From this, two issues are apparent: the food alone cannot overcome negative initial thoughts and a positive image of the eating establishment being conveyed pre-meal experience is crucial. This, however, would indicate that no customer would be happy with their meal experience unless they were eating at a very highly regarded restaurant. Conversely, fast food restaurants actually provide one of the highest meal satisfaction levels as well as serving vast quantities of customers (Moskowitz, 1995). Ryu and Jang (2007) show through their work that some types of dining experiences and purchases, such as, fast food can be seen as a function driven by the customer which means it will be assessed differently by the customer in comparison to upscale dining experiences. This, therefore, would build on the work of Meiselman et al (2000) that indicates that customers could potentially be rating eating establishments within categories and accepting meals if they fit the purpose, for example, particular timescales, or localities.

### 1.4.1 Rationalising the Meal Experience

With regard to customer opinions of food consumption, many authors, such as Cardello (1995) have surmised that this is a complicated area to judge, due to the physiological impacts of, for example, individuals tastes. Furthermore, how customers evaluate their meal experience is made up of components, such as, reason for visit, time input and so on. The existence of links between customer perceptions associated with service, value,
repurchase, word of mouth and intention have also been recognised (Oh, 1999). All of these elements impact on customers dining out experiences but have mainly only been measured previously through attribute-value theory, or expectancy disconfirmation theory, where the experience may confirm or disconfirm the expectation (Wakabayashi, 2003).

It is apparent that some research has been conducted into the impact of different recognised factors that need to be aligned, or surpassed positively for confirmation of expectations to occur. However, what has not been investigated is how the factors impact upon each other (Oh, 1999). Furthermore, within the restaurant environment there are endless factors that are detected by customers but which are so extensive they have not featured in perception research to date.

### 1.4.2 Restaurant Image

Expectations need to stem from some form of information whether it is visual, word of mouth, or a description, such as a menu. It has been established that advertising is not what portrays an image (Clow et al, 1997). Therefore, this would mean that advertising brings about awareness but does not create the expectation in customers' minds. Authors, such as, Wakefield and Blodgett (1994) have established that there is a relationship between the type of restaurant being chosen and how susceptible the customer is to factors, such as those making up the environmental aspects. This is due to the purpose of the visit; if a visit to an eating establishment is sought for pleasure, or an experience, it is considered to be providing an hedonistic experience and customers are more influenced by the environment.

Restaurant visit intention can be seen as part of customer behaviour and there are a number of theories (for example, customer models, see section 1.2) that try to decipher customer decision making and incorporate social and psychological factors. However, although these models exist they are not specific to the restaurant industry but instead focus on general customer behaviour practices. What is noted however, is
...."as society becomes increasingly affluent, as discretionary income allows this heterogeneity to be more fully expressed, the problem of determining useful typologies of consumption patterns has attained paramount importance for marketers" (Myers and Nicosia, 1968: 182).

Although other fields of research consider aspects, such as, sociology, and some authors believe this should be more prevalent (Nicosia and Mayer, 1976), in hospitality, the main considerations are primarily regarding the decision making process and the outcomes of this, for example, satisfaction (Jones and Sasser Jr., 1995; Namkung and Jang, 2007; Oliver, 1980; Cardozo, 1965; Pieters, Koelemeijer and Roest, 1995; Arora and Singer, 2006; Oliver and Burke, 1999). The wider context of decision making is often missing from customer research within the field of hospitality and the many environmental aspects that impact upon the decision making process, yet no models exist which account for these features.

### 1.5 Customer Circumstances

A report carried out by Study Perspectives (2012), noted how the disposable income of customers was being eroded away through increasing energy and food costs, along with the value of Sterling falling. Factors, such as inflation, affect customers but no models exist to which social patterns can be applied and considered in order to establish outcomes of customer behaviour when choosing restaurants. Customer sociology is obviously an extensive area and not all aspects could be incorporated into a customer
behaviour model for dining out. However, some of the highly regarded influencing, yet rudimentary factors, such as income, family size and customer age have, as yet, not been collated into any models in order to try to predict outcomes, or understand customer behaviours when dining out in the UK. Many socio-economic factors are not necessarily equal in their influence, they cannot be isolated and they interact differently. However, in an area where customer research is the focus of the business (advertising) it has been noted that "one of the pressing needs of advertising research is to reconstruct the total picture, to put together the various parts of the economic, psychological, and social mechanisms that govern observable behaviour" (Nicosia, 1968: 30). In more recent years this has been to an extent acted upon and aspects, such as, age (Cullen, 2004), or gender (Warde and Marten, 2000) and, where media plays a strong influencing role, authors, such as, Muller (1999) have looked at how issues, for example branding, impacts upon customers. Again, what can be noted is these factors are looked at in isolation and not attributed to designated groups of customers who are likely to have similar patterns of behaviour.

What can be seen, which is where this study stems from, is that within the field of hospitality, the combination of socio-economic factors that affect customers and the their impact upon their decisions and choices, have largely been neglected when considering dining out expectations. Moreover, there is no research looking at how such socio-economic factors directly influence expectation generation in a dining out context.

The purpose of this chapter was to highlight areas that have yet to be researched and fully understood (see Table 1-2). By understanding and exploring such issues this provides the basis to understand in more depth customer expectations of dining out.

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### 1.6 Research Aims and Objectives

It has been established that customers do not act as one population group; instead, aspects from customers' lives influence their choices. It is these influences that will determine their customer group profile. This will subsequently indicate particular behaviours and expectations. To meet the challenge of understanding the emerging research area of what expectations customers have of different restaurants, based on meal cost and the customers' socio-economic factors, the following research aims and objectives become principal aspects of the study:

Six aims (1 to 6) and six objectives (a to f) form this investigation:

1 To analyse and synthesise the body of knowledge related to customer expectations of dining out.

2 To undertake a substantial data collection exercise to enable an evaluation of customer expectations of dining out.

3 To clarify and derive meal costs from a customer perspective.
a. Evaluate what customers determine as the cost brackets for inexpensive, mid-priced and expensive restaurants based on meal cost.

4 To assess how customer expectations vary between different restaurant types.
b. Classify customer expectations of different restaurants as determined by cost categories.

5 To evaluate what influences customer expectations of dining out.
c. Analyse the influence of socio-economic characteristics on customer expectations.
d. Assess the extent to which expectations are consistent amongst the different socioeconomic groups.

6 To make an original contribution to knowledge through the development of the study findings in the context of customer expectations of the dining out experience. e. Develop a practical typology in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics.
f. Develop a theoretical model in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics.

### 1.7 Aims and Objectives Motivation

Through undertaking the necessary research to attain the aims and objectives, this thesis will be able to contribute to the emerging study area of customer expectations of dining out in relation to meal cost. Furthermore, there will be both theoretical and industrial implications of new knowledge that will have potential for both practical application and academic consideration. The research areas established from chapters 1 and 2 (see Table 2-2) present issues that the existing available body of information has identified, or actions from previous research that could be improved upon. This information has been accumulated into Table 2-2 as 'Rationales for Research' and the applicable aims and objectives have been aligned to these rationales. The intention of Table 2-2 is to demonstrate the cohesiveness between the identified insufficiencies within the research area, or issues arising from the existing relevant research and this study's purpose and direction.

### 1.8 Theoretical Orientation and Structure of the Thesis

The theoretical approach adopted by the study will be primarily related to customer expectations. However, there is a focus upon customer behaviour within the dining out environment and the rationale for specifying this area is to maintain the link with customer behaviour research as 'expectations' can also, as a research area, fall into the domain of economics and psychology (Oliver and Winer, 1987). Finally, the drivers of the customer expectations, that are socio-economic factors, will be further investigated and will also underpin the development of a practical typology of customer expectations of dining out in relation to meal cost and a theoretical customer behaviour model.

The thesis will be structured to ensure that the information builds logically and orderly and will develop through discussion and research chapters. The first of these, Chapter 1, The Introduction, has highlighted what theory is missing from the existing body of relevant research. The resulting framework (Table 1-2) defines the rationale for the research and highlights where the ensuing outcomes from the study would be incorporated amongst the established and published theories.

Chapter 2, a literature review, draws together established information whilst also filtering the topics so that only the relevant aspects relating to the study context are included. The purpose of the literature review is to inform, which subsequently provides a background, as well, as reinforcing the information contained within Chapter 1.

The framework for the study is explained in the Research Aims and Objectives section of Chapter (Chapter 1). The six aims and six objectives underpin the study, providing guidance, with the consequence of achieving the aims and objectives by the conclusion of the study.

Moving into the Research Design and Methodology Chapter (Chapter 3), this concentrates on the research philosophies that underpin the context of the research, as well as, the design and rationale for the how the research was conducted and analysed. Furthermore, the information in this chapter supports the justifications for the nature of the study and why the specific characteristics of the research were adopted.

Chapter 4 is the first of the two chapters that outline and analyse the findings. Chapter 4 interprets and presents the findings from the questionnaires and illuminates the data
collected through discussion of the information. Chapter 5 discusses the findings in a statistical analysis context through the application of factor analysis, T-tests, ANOVA and Chi-square tests. This begins the process of adding to the existing body of knowledge because the information deduced from the quantitative analysis provides the information for the proposed practical typology and theoretical model, as set out within the objectives of the study.

The following chapter, Chapter 6, deduces the statistically generated outcomes through presentation of the new typology development for customer expectations of dining out based on meal cost. The penultimate chapter, Chapter 7, discusses and concludes the study's findings in relation to the practical typology and theoretical model, the aims and objectives and the existing literature. Finally, Chapter 8 discloses what would be the most relevant next steps for the continuation of research in this specific field, as well as, the potential application opportunities for the hospitality industry.

## 2 Literature Review

This chapter will examine the body of literature that surrounds the research area of customer expectations. As the specific field of UK customer expectations of dining out in relation to meal cost is a newly emerging field of research, there is a lack of theory and information that exists specifically to the area. Therefore, many of the topics looked at are those that contribute to the study area, that is dining out, as opposed to being directly related, but will nevertheless support and inform the research direction. Consideration and understanding of existing themes and theories are also important so that this research can be compared with the established research literature. This chapter will review all of the aspects that impact upon customers' expectations when dining out, because although expectations are used to predetermine what an experience should be like from the customers' point of view, expectations are actually based on prior experiences (Tolman, 1932). Systematic and effective discussion of the key influences and theories will therefore be the basis for the literature review and this will ultimately create a platform with which to centre and associate the proposed research.

Expectation research is broad and multi-disciplinary, furthermore, the restaurant environment and eating is not a simplistic study area, because as Macht, et al (2005) suggested various stimuli, including features of the physical environment and social factors, will all impact upon the meal experience. They also comment that a customers' internal conditions, such as, motivational, cognitive and behavioural factors will further influence how a meal is experienced by the customer.

The themes of customer expectations and dining out establishments are explored through looking at the topics of the restaurant sector, food, service, the meal experience,
the restaurant environment, semiotics, customer satisfaction, customer expectations, customer acceptance and expectation formation. By designing the chapter in this way there is an explainable movement from the tangible, to the intangible and then into expectation theory, building up the rationale that comes together to form the specific background to the study.

### 2.1 The Restaurant Sector

Statistically eating/drinking, working, sleeping and watching TV are the main activities of an average UK adult (Office for National Statistics, 2005b). As socio-economic and demographic changes take place there are consequential changes to customer eating habits. Eating out has become part of everyday life within the UK due to new social and cultural characteristics encouraging people to eat away from the home (Finkelstein, 1989; Warde and Martens, 2000). The average proportion of household expenditure that is spent on food outside the home is at $22 \%$ and the average customer will spend $£ 663$ per year on food consumed outside the home (EatOut, 2011). An increase in women working, a rise in two income families, one-adult households, the impact of advertising and more people in the age group of $25-44$ who are inclined to eat out more often (Putnam and Van Dress, 1984), are just some of the reasons suggested as contributing to an increase in eating outside the home, and are clearly of considerable importance for the restaurant industry.

With the variety and number of food outlets growing in-line with public demand and with more restaurants opening in an already competitive market, trading has become fierce, although the effect on choice and price are of benefit to customers (Mintel, 2004). Lifestyle changes and increased customer affluence have been the driving forces
behind the widening of eating out options. Specifically, the restaurant sector has seen the value in takings of the 262,134 UK restaurant outlets (CatererSearch, 2010) rise to over $£ 30$ bn in 2011 (EatOut, 2011) and in 2008 it was estimated 8.5 billion meals were served (CatererSearch, 2010). Among some of the lifestyle changes has been the effect of people choosing to eat out for convenience, rather than for one-off occasions. The choice that customers have has led to restaurateurs becoming aware of how much more demanding and sophisticated customers are and their focus on service has become more important in order to satisfy customers and maintain profits (CatererSearch, 2005). The driving forces behind customers choosing to eat out are linked with what Olsen, Warde and Martens (2000: 186) describe as "expressing group belonging" linked to age, education, class and income. Although many restaurants gain customers through promotion of their restaurants by appealing to certain 'population groups', there is little overt promotion of restaurants aimed specifically at class, age, or income as this does not fit well in today's society (Riley, 1994).

A number of factors have been considered within recent research looking at customer groups to try to understand their perceptions of the eating out experience. In a study by Binkley and Eales (1998) it was shown that although a number of other researchers had focussed on customer demographics, they found that demographic and income differences have less of an effect upon demand for food than cultural aspects. For example, they showed how fast food demand was found to be driven not by income or demographics but by the population density, of metropolitan areas. Additionally, Bowen (1998: 289) suggested that geodemographic characteristics (individual households that share the same characteristics), which were used to define customer groups and their behaviour are in fact only secondary aspects compared with issues, such as, attitude and behaviour patterns. Subsequently, trying to assess both the
geodemographics together with psychographic measures often caused confusion of the segments which in turn created misunderstanding in the assessment process. When looking at trying to decipher how customers viewed their meal experience Riley (1994) suggested that due to the conclusion of no apparent consensus as to what customers could consider a good experience, the actual customer measures used to judge an experience should be the restaurant's instant subjective impact, or the experience had during time at the restaurant.

### 2.1.1 Food

Valuing a restaurant is complicated for customers because the intangible components can be difficult to assess and furthermore, what is tangible, such as, the food offering is often cooked to order and subsequently may not be repeatedly available. Such factors can make it difficult to even make comparisons week on week of the same establishment (Naipaul and Parsa, 2001). Bitner, (1992) Mehrabian and Russell (1974) Meiselman, et al (2000) and Russell and Snodgrass (1987) believe that customers play a role in the interpretation of their meal experience not just because of their personalities, or their reasons for being at a restaurant but also due to the influence of the eating environment and whether the food is in-line with their expectations determined by their choice of eating environment. Auty (1992) comments that the relative importance of attributes may change with each dining occasion. For example, the image aspects of the restaurant become more important to the customer if eating out is centred around a celebration.

Saint-Paul (1997: 119) demonstrated the importance of additional factors of the meal by using the scenario of a foreigner being invited to a party but not understanding the etiquette correctly, emphasising the point that "what matters after all is less about what
we share as a meal (the actual food items), than the perception we get while being involved in the activity of the meal".

Taking the situational variables one stage further to demonstrate how these can impact upon the food experience, authors such as Milliman (1986) and Bell, Meiselman, Pierson and Reeve (1994) have demonstrated how changing a variable can influence how food is both perceived, chosen and consumed. This indicates that although some authors disagree with seeing the meal experience as being more than just the food and demonstrate (if limitedly) that food is always at the top of customers list when describing what is important when dining out, how the food is perceived by customers, is actually influenced by other variables. Meiselman (2002, in King, Weber, Meiselman and Lv, 2004) suggests there are four major aspects that can alter the perception of food during consumption: the foods function within the whole meal; social interaction; the environment of the meal; and freedom of food choice.

Cardello, (1995) researched the expectation of food and concluded that customers rated food acceptance in-line with their expectations of the choice of venue. The study highlighted participant opinions between a student cafeteria and training restaurant where the expectation that the food would be better in the training restaurant, despite higher costs and less choice, was then confirmed after the food had been consumed. Therefore, from this study it can be seen that customers who rate the food often demonstrate 'assimilation' between the food and the eating environment. Although, it is worth noting that expectation is a "preconceived, often subconscious standard" (Hubbert, Sehorn and Brown, 1993). This pre-determined expectation is typical of how customers differentiate between restaurants and choose one that matches their anticipation, despite advertising claims by every restaurant of 'fine food' (Lewis, 1981).

There have been a number studies that have suggested that customers choose restaurants due to the quality of food and this has been established through the investigation of the reasons why customers return to restaurants. In Clark and Woods study (1998), which used the findings of June and Smith (1987) and Auty (1992) as a basis for their study, it was consistently found, throughout three eating contexts social, celebration, and convenience that the quality of food and the range of food were the most important factors for choice and had influenced customers to return to a specific restaurant. Aspects, such as the atmosphere and staff friendliness were slightly lower on the rankings, although the study in question did not take into account what would happen to customer return rates if the atmosphere was lacking or if staff were rude.

The study had predetermined variables as its options for customers to choose from price, quality and range were the variables linked to the food and then the other variables were somewhat random including, for example 'wash room facilities', 'parking' and 'opening hours'. This could have led participating customers to rate variables that they had not even considered, which could have led to obvious factors, such as the food, being identified as the most important aspect of the meal experience. Additionally, there was no mention as to how the ten variables were decided upon, which further adds to questions relative to the validity of the variables selected. Therefore, although this study leans towards dispelling work that maintains it is the whole meal experience that matters to customers (Johns, 1999; Pine and Gilmore, 1999) it cannot be seen as conclusive, as the research carried out concentrated on the provision of good food but the removal of other criteria was not undertaken. Thus it must be questioned whether this research provides conclusive evidence that, all that counts for a good restaurant experience, is the food.

An interesting study is that of Lewis (1981) which looked at the reasons why people visit restaurants. Although the study indicated that food quality was always the most important factor in what customers expected, the other variables tested (menu variety, price, atmosphere and convenience) differed in their rankings between different restaurant types (family/popular, atmosphere and gourmet). This led Lewis to conclude that "it is the initial choice of restaurant type by the customer that distinguishes the benefits sought" (Lewis, 1981: 73). Percy's (1976) work also noted that there is often not an overall answer to market demands but that "some (customers) are much better prospects than others; and a knowledge of which factors are important to and influence particular segments in the population can be invaluable" (Percy, 1976: 21).

Riley (1994), whose work focussed on customer experiences, suggested that, when trying to conclude which aspects were the most important for customers, when eating out 'quality of the food' and 'variety' were prominent for the majority of respondents. However, Riley believed that although it is these standard factors that customers comment upon it was actually the 'holistic' and 'intangible', such as, atmosphere and environment which were the genuine influences over the dining experience.

It is widely recognised that the environment portrayed by the interior aspects of a restaurant can have an impact on the overall restaurant experience (Johns and Pine, 2002; Auty, 1992; Finkelstein, 1989) and that the right design is crucial to achieving a positive reaction from guests and ultimately plays a role in creating a successful business (Hamaker, 2000). The impact of the environment on the restaurant experience is deemed as a major component of the whole experience and so is subsequently important when assessing the meal experience. Ryu and Jang (2007) believed the environment does affect customer opinions of their restaurant experience, they discuss
how the environment and aesthetics actually affect human psychology and behaviour, which in turn may impact on the experience. Thus, the décor/environment/aesthetics play an integral role in customer interpretation of the meal experience.

Ryu and Jang (2007) explained their theory further by categorising restaurants. Those restaurants that are at the higher end of the market are, according to Ryu and Jang (2007); Wakefield and Blodgett (1994) targeted by customers who are actively looking for an hedonistic experience. This, therefore, makes them more susceptible to influences, such as, the environment as opposed to memorable factors, for example, service factors alone and so it is very difficult to define what elements which are not on the dinner plate still influence the customers' perception of the meal. As Meiselman, et al (2000) discussed, it is taken for granted by restaurant patrons that a particular standard of restaurant will deliver the expected food quality, service, price, décor and fellow customers befitting of that restaurant. All of these factors are unavoidably present in a restaurant and although not directly related to the meal itself, they nevertheless affect the meal.

As Meiselman, et al (2000) demonstrated in their study, the more impressive the eating environment is perceived to be, the more customers like the food, as well as, rating the food more highly. Their studies have shown that when exactly the same food was served to customers in different environments those environments where more emphasis was put on the dining experience, for example, a white cloth restaurant as opposed to a canteen, the food was perceived to be better and rated more highly. The attribution of higher or lower food ratings would therefore be in-line with customer's preconceived expectations of each environment. So, features such as, service aspects, facilities and
ambience do have an overall effect on the customer's visit even though they are not directly linked to how a customer would view the food.

The Meiselman, et al (2000) study used a restaurant, refectory, training restaurant, food science lab and cafeteria as the different environments to test their environment theory. Subsequently, as the customers rated the same meal as being better in a restaurant than in the refectory, the environment was concluded to have a substantial impact on the customers' food experience. Furthermore, Meiselman, et al (2000) demonstrated that as well as influencing customers whilst in the restaurant, the type of eating establishment affects customers' expectations of the likely meal experience they will have, which also affects meal perception.

Although there is no scientific proof of what constitutes, or directly affects the 'meal' aspect of the restaurant experience, as it is very subjective, it is nevertheless, critical to understand how restaurant customers view their meal, whatever it is deemed to consist of. Until recently, interpretation of food has been explained through sociological variables like class, gender and age (Sneijder and te Molder, 2006). It is now, however, accepted that such categories are quite vague and new interpretation methods need to be investigated. In Sneijder and te Molder's (2006) work they implemented the use of discursive psychology which considers conversational interaction, ethnomethodology and social construction as a tool to decipher how people, in the case of their 2006 study, demonstrated themselves to be gourmets. Although some authors, such as, Wright, Nancarrow and Brace (2000) believe that sensory findings directly relate to opinions of foodstuffs, Sneijder and te Molder (2006) contradict this theory because they argued that evaluations of taste have "rhetorical and interactional implications" therefore, taste analysis is not as straightforward as deciding if a food is palatable. In support of this,

Cardello's (1995) work discussed how food quality is down to perceptual and evaluative opinion relative to person, place and time and that it is also subject to context and expectations.

An example of how Cardello (1995) puts this into context is by comparing how different people would interpret food quality. For example, a food scientist might use years of proven research to discuss the foods nutritional and microbiological aspects. This would be in contrast to how the average customer would view the quality of a food product. However, as Cardello (1995) highlights although customers are responsible for the success of the food industry, in fact customer definitions and opinions of food quality are known least about. Although Cardello's (1995) work focusses on how to measure customers' opinions of quality, the work additionally provides insight into the difficulties of understanding how customers rate and categorise food. Importantly, Cardello's (1995) work added a crucial element to the issue of customers' interpretation of a meal by suggesting opinions of food are formed based on 'expectation' and 'perception'.

It can be seen, therefore, that eating in a restaurant is more than just consuming a meal outside the home. Many factors created by both the restaurant and customers themselves impact upon the experience. There have been several key issues considered by researchers who have investigated the food aspects of restaurants, however, what is behind much the motivation in researching the area, is the need to understand customers' interpretations and in connection to the changing industry.

### 2.2 Service Aspects

When considering restaurants, service is a main feature and much research has been carried out looking at different aspects of service. Furthermore, models have been created which have attempted to interpret customers' opinions of service. Some of the models are conflicting in their conclusions of customer satisfaction but they nevertheless provide theories to test when considering meeting restaurant customer expectations.

### 2.2.1 Service

A service encounter has been described as "a period of time during which a customer directly interacts with a service" (Shostack, 1985: 243 in Bitner, 1990). Although it is not the intention to investigate service in great depth, this aspect of the restaurant experience has to be understood for two purposes: First, to understand what 'service' encompasses, and secondly establish how important 'service' is to customers when dining out.

Service, it has been established (Brown and Swartz, 1989), is not purely the interaction between the person providing the service but rather it indicates all of the service encounter, such as, interactions, or the provision of information. Bitner, Booms and Tetreault (1990: 72) defined the service encounter as the moment of "interaction between the customer and the firm", which demonstrates that service is more than purely what is being served. Some research has indicated that there are common series of thought as to what service is and that these factors are the same for the customer and the employee involved with the service. Other research however disputes this (Folkes and Kotsos, 1986) and argues that customers and the employee see different sides of the
service encounter - one being the provider and the other passing judgement. Additionally, much research has looked at providing service to a satisfactory level, but typically fails to assess the non-human aspects, such as the importance of atmospherics in service encounter satisfaction (Bitner, Booms and Tetreault, 1990). Furthermore, Meiselman, et al (2000) and Pierson, Reeve and Creed (1995) comment how little research has been carried out through controlled comparisons of important influences on food and experience, such as, service. Moreover, Brown and Swartz (1989) commented that little research has been undertaken between the standard of the service and customer satisfaction and the research which does exist in this area is both general and descriptive in its nature. What is agreed upon, is that satisfaction occurs for the customer when outcomes meet, or exceed their expectations, whereas dissatisfaction is experienced if the customer's expected outcome is not met, or exceeded (Brown and Swartz, 1989).

Johns (1999a) cites that a parallel development to the experience economy is that a service experience is about emotion which is related to the customer's values. The idea of customers attributing emotion to service is developed by Pizam and Ellis (1999: 327) who stated that customer satisfaction is a "psychological concept involving a feeling of well-being and pleasure and that these are ultimately the goals hoped for and expected by customers of an appealing product, or service". Therefore, service is a part of the restaurant experience and authors regard service as a crucial element of eating in restaurants. Lee and Hing (1995: 293) comment that "...meal quality, the environment and service - the former two can easily be improved, but it is the service element which will eventually provide a business with a sustainable competitive advantage". Little was written regarding service quality until the 1970s with not much to distinguish between 'services' before the 1960s (Lee and Hing, 1995). It was not until the introduction of

Parasuraman's (1985) SERVQUAL model that a recognised model for service existed. Bowen and Cummings (1990 in Lee and Hing, 1995) still maintain that service delivery is difficult to specify and support the theory that the feeling of service along with the atmospherics of the setting is what is important in providing customers with a positive opinion on the overall service delivery.

### 2.2.2 Customer Service Measures

Walker (1995: 5) cited that "services are primarily intangible, cannot be separated from their provider or stored in an inventory, and their delivery tends to be inconsistent". Furthermore, Walker (1995) described how service qualities can be decided upon by the customer through different quality analysis and posed three categories: 'search qualities' are those which the customer knows before any service exchange happens; 'experience' are the qualities of service experienced by the customer during the service encounter; and 'credence qualities' are the intangible qualities of service that customers find difficult to evaluate. Smith (1999, in Chan, Wan and Sin, 2006: 3) defined what actually causes the failure of a service, as perceived by the customer, is when the "service is delivered in a flawed, or deficient manner, resulting in the loss of social resources (e.g. status, esteem) for the customer". However, this conclusion was somewhat limited and Chan, Wan and Sin (2006) built on Smith's theory and added 'non-delivery' as a cause of service failure for the customer. Non-delivery is that which may result in the loss of economic resources, such as, money, or time for the customer.

Service quality research (Chan, Wan and Sin, 2006; Mohr and Bitner, 1995) has split service into two sections that can be identified by customers: the process of service delivery (the transfer of service from employee, social and psychological aspects, to the customer) and the service outcome (the physical/instrumental factors which relate to the
service that the customer has). The Chan et al (2006) study looked at how customers become dissatisfied with service and identified that customers can feel dissatisfaction through two ways. Firstly, social interactions can provide a favourable public self-image and this is linked with a customer's perceived feeling of social self-worth and selfesteem (Ting-Toomey and Kurogi, 1998). So if a customer is ignored, feels threatened or is treated differently due to age, income, or gender (Prisble, 2000) this will lead to dissatisfaction through the social-interaction route. This idea of the social implications that a restaurant experience can have on its customers is summed up by Finkelstein (1989: 3):
"In our society, much of dining out has to do with self-presentation and the mediation of social relations, through images of what is currently valued, accepted and fashionable. The restaurant is regarded as a place where we experience excitement, pleasure and a sense of personal well-being...The images of wealth, happiness, luxury and pleasant social relations which are evoked within the restaurant are iconically represented through its ambience, décor, furnishings, lighting, tableware and so on. These are in turn dominated by fashion; there are distinct waves of style in dining out....Objects of décor become the representations of human emotions; they summarize the mood we expect to enjoy while dining out and as such they appear to be simultaneously the instruments which create desired emotions.."

In other circumstances, where an undesirable event occurs that affects the customer, such as, an item no longer being available on the menu, this is an incidence which is removed from the customer and can be classed as more situational. In each instance there will be customers who are more dissatisfied than others, for example, if a customer is particularly self-aware they may be more dissatisfied via the socialinteraction route than others. Moreover, customers who believe in fate and luck will be predisposed to believe an unfavourable situational event was meant to be and may therefore, be less dissatisfied than customers who believe it to be the service provider's responsibility (Ural, 2008). The disconfirmation model by Woodruff, Cadotte and

Jenkins (1983) (Figure 2-1) is one that has often been referred to as a method of understanding how a customer decided whether they felt positive, negative, or indifferent about the service experience they encountered.

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Fisk (1981) looks at the resulting decisions on service in three stages: pre-consumption; consumption; and post-consumption. Initially, in the first stage no service has taken place and this is where the environment (being considered as a service aspect), or the service providers' appearance is often considered by the customer. Walker (1995) referred to atmospherics at the first service consideration stage, as it may be an influence on customers prior to experiencing the core service. Studies cited by Walker (1995) have highlighted that decisions on service (atmospherics, personal, the environment) at this initial stage can influence the overall evaluation of the whole service encounter. This demonstrates that although no service had been provided to that point, the factors that could be considered, were very important to customers. Although first stage factors are not removed once the main, or 'core service' aspect occurs, the
customers' attention moves from these aspects to the actual service. These include whether the meal was hot when it arrived (if required), was it what was ordered and, so on. This stage is vital for a business to ensure customer satisfaction and perhaps it is the most difficult because as Czepiel, Soloman, Suprenant and Gutman (1985 in Walker 1995) comment, only minor problems with the core service can be overcome if the total service experience is to have a positive outcome. This may relate to the fact that in terms of service delivery, customers know what to expect - cooked food should be hot, members of staff should be courteous, whereas for the first stage, room colour, or layout may be different to expectations but can still bring a positive evaluation.

The core stage is often the assessment of the 'tangible' which Johns and Kivela (2001) believed to be more influential than the intangible. In their study of customers experiencing a restaurant for the first time, the physical elements were used more often to describe a negative response to the experience whereas the intangible, such as the atmospherics were often used when discussing a positive experience by the customer. Furthermore, within the restaurant setting this stage is providing the food, which Johns and Howard (1998) considered to be important as it fulfils one of the basic human needs. In the final evaluation stage, aspects from stage one can begin to be reconsidered again along with post-service activities, such as, payment and where any actions to compensate for minor flaws in stage two are evaluated. Whatever conclusion is made on service, the last stage will define the whole service encounter - this may be linked with the rule of primacy and recency (Bowen and Morris, 1995).

Another dimension of customer service is 'attribute value theory' (Pizam and Ellis, 1999). This is how customers are believed to view a service, that is, viewing the dining out experience against a set of variables which are then attached with a level of
importance. From these measures customers can weigh up the overall experience. These variables can be split up by non-weighted/weighted compensatory models and non-compensatory models which may be further split into disjunctive and conjunctive models. Non-weighted compensatory models presume that trade-offs are made of one attribute for another to make a decision on the overall experience. Whereas the weighted compensatory model is the concept that customers add an importance rating to each attribute. Non-compensatory models (no trade-offs of attributes) which follow the conjunctive route adhere to the concept that as well as not having any attributes being able to be compensated, all measures have to reach a certain level as perceived acceptable by the customer in order for that attribute not to fail the whole experience. Non-compensatory models that are disjunctive only require certain key attributes to have minimum levels imposed on them by customers (Pizam and Ellis, 1999).

Swan and Combs (1976) produced an hypothesis based on 'instrumental' (performance of the physical product) and 'expressive' (psychological performance of the product) determinants, where both needed to be above, or equal to expectations in order for customer satisfaction to occur. Maddox (1981) implemented Swan and Combs study and found that if an 'expressive' attribute was not met, then satisfaction was reduced although not necessarily to the point of dissatisfaction. Hausknecht (1998, in Johnston, 1995) took the study further and rather simplistically linked emotions with what satisfies and dissatisfies. Not surprisingly, it was found that a common theme for expressions of joy, surprise and interest was associated with satisfaction, whereas anger, disgust and surprise were linked with dissatisfaction.

In order to gain positive customer affirmation, especially with service delivery, a business must go beyond what is expected or else customers can choose to be
indifferent to the event (Bitner, 1992). Unfortunately, as Walker (1995) demonstrated, although the peripheral aspects to service are crucial, the business efforts are not always noted by customers. Potentially, this occurs as there are so many areas of focus for a customer to notice, that even those where a business may be surpassing expectations, can go unrecognised by the customer. To avoid this, Walker (1995) suggested drawing attention to the situation so that the customer considers it when making their decision as to whether they were satisfied by the service.

As previously discussed, service encounter satisfaction has also been defined by the disconfirmation of the expectations paradigm (Churchill and Suprenant, 1982; Oliver, 1980; Oliver and DeSarbo 1988; Tse and Wilton, 1988). The disconfirmation paradigm suggests that customers decide if they are satisfied by comparing their received product and service with prior expectations, and each customer has individual expectations of the level of product, or service that they should receive. The sense of satisfaction by the customer is different from their overall attitude towards the service and Bitner, (1990) defined service satisfaction as the assessments made about individual transactions compared with attitude, which can be seen as being more general. Bitner's (1990) research concluded that all individual service encounters need to be managed and controlled separately in order to enhance overall perceptions of service quality.

Staff explanations for service failures can diffuse dissatisfaction and symbolic cues of non-verbal messages, such as the physical appearance of staff, may increase service encounter opinions. Although it may be possible to put into place variables to please the customer it may also be the case that some customers will not conform and will still leave the restaurant experiencing dissatisfaction. For example, Clark and Wood (1998) reinforced the idea that tangible aspects will often be the deciding factors as to whether
a customer had a positive meal experience. However, different customers may interpret quality in very unpredictable ways due to previous experiences of critical incidents or cultural factors (Johns and Howard, 1998).

Although satisfaction may be demonstrated by the customer, Arnould and Deibler (1995) suggested that there was a deeper response (emotional) experienced by customers rather than simply 'satisfied', or 'dissatisfied'. However, on average customers report experiencing little emotional response most of the time, although one area where emotional response increases is when the service provider offers extra attention and understanding towards the customer (Smith and Bolton, 2002).

It can be seen therefore, that service can be both measurable and intangible. Extensive research has been carried out looking at service in restaurants and models exist for implementing service under best practice conditions. A number of key issues regarding service have been raised by researchers and most notably service is important to this study as it demonstrates an element that customers may base expectations on.

Determining if service standards have been met is also a question that has often been considered through post-expectation research studies. A number of models, such as, disconfirmation theory and attribute value theory, which are judged through nonweighted and weighted models, have been designed. However, no one overall determining theory appears to apply to all restaurant scenarios, or encompasses all aspects of the restaurant experience, and so this area is still open to interpretation.

### 2.3 The Meal Experience

Hansen, Jensen and Gustafsson's (2005) research investigated restaurant customers meal experiences of $\grave{a}$ la Carte restaurants and divided what the restaurants offered and what the customers 'experienced' into 5 sections:

- The core product that created the customers total experience of food and beverage consumption and subsequent social reactions and interactions;
- The restaurant interior consisting of all elements providing the meal setting;
- The personal social meeting or the interactions between customers and customers and staff and customers;
- The company gathered to share the same meal;
- The restaurant atmosphere which relates to the emotional experience brought on by the restaurant throughout the meal.

In Gustafsson, Ostram, Johansson and Mossberg's study (2006) the 'Five Aspects Meal Model' (FAMM) was used as a basis for demonstrating that a meal consists of more aspects than just the food being consumed, namely: management control system; room; meeting; product; and atmosphere. These five areas were then split into two groups, the first of which coincided to a logical timeline (room, meeting and product) and the second was more extensive (management control system and atmosphere). Gustafsson's model was created by assessing Michelin Guide inspectors' meal experiences over a number of years. This contrasts with Hansen, Jensen and Gustafsson's later 'Customers' Meal Experience Model' (CMEM) which was based on empirical data. However, the CMEM model was based purely upon data from five focus groups that provided insight into customers' meal experiences, which subsequently formed into the aspects of the questions and the model used in the interview template to gather the study's data. Another investigation that attempted to define what makes up the restaurant experience was Andersson and Mossberg's (2004) 'concentric rings model' which illustrates what aspects influence a customer's
multidimensional meal experience. The 'must' is the food (forming the centre of the model) and in the adjacent rings there are five groups of satisfiers:
(1) Service
(2) Fine cuisine
(3) Restaurant interior
(4) Good company and
(5) Other customers

However, again this model lacked extensive research as it was "based on reviews of related studies" (Andersson and Mossberg, 2004: 172) rather than any specific quantitative, or qualitative data gathering exercise. Furthermore, although Warde and Martens work is referred to by Hansen, Jensen and Gustafsson (2005) with regard to the development of their study and model, in terms of how they divided the aspects of the meal experience, this was based on their "service provisioning approach to consumption" (Warde and Martens, 2000: 16) as opposed to actual investigative studies.

There have been a number of studies looking at the meal experience, however, the models created to define the restaurant experience have not been based on extensive customer research. Insight into what defines the restaurant experience would be very beneficial to the industry but definitive conclusions have yet to be drawn by researchers.

### 2.4 Restaurant Environment

Auty (1992) believes that style, service, décor, price and ultimately the atmosphere created by these elements are so important to customers that when a market segment of restaurants has been chosen, it is these individual elements of service, décor and so on that become the deciding factors as to where to choose to eat. Indeed, Auty considered them to be 'critical' to the final choice, especially between restaurants serving similar
types of food. This is reinforced by Balzas (2002) who visited a number of three star Michelin restaurants and concluded that people eating in this type of restaurant did so, not for reasons of hunger, but to escape everyday life and indulge in an exceptional experience. However, even at the other end of the market, customers also look for something more than just food when eating out. This has driven the growth of 'themed' restaurants with customers seeking atmosphere, as well as a good, or different meal. Although restaurants are traditionally judged on service quality, due to the evidence suggesting that customers are reading more into the experience than just service, Johns and Pine (2002) recommended that measuring the standard of a restaurant on the general attributes for service quality alone are not satisfactory because they do not describe the full restaurant experience.

Belk (1975) developed a list of all possible environmental factors that could be proved to have an impact on those dining within the environment as previous attempts at environmental descriptors were found not to be comprehensive. However, Russel and Mehrabian (1976:62) considered Belks’ idea of creating a conclusive environmental factors list was too 'cumbersome'. Instead they proposed descriptors that were more general...."for instance, temperature.." and these additional factors would not create 'redundancy' by overlapping with other descriptors. In addition they recommended that lists of descriptors relating to the environment should be made up of as few variables as possible but should still provide insight on the environment with regard to human responsive behaviour. In terms of how peoples' behaviour is communicated, Russel and Mehrabian (1976) proposed a set of outcomes: 'pleasantness', 'arousing effect' (information rate) and 'dominance-pleasing effect' to describe the impact an environment has. A further study by Lindquist (1974: 32) produced from "a search of
literature" of twenty-six authors' publications, nine attributes that could contribute to image formation, or influence customer attitudes. They were:

- Merchandise (goods offered) - quality, selection, styling, guarantees and pricing.
- Service - service-general, salesclerk service, presence of self-service, ease of returns, delivery service and credit policies.
- Clientele - class appeal, self-image congruency and store personnel.
- Physical facilities - elevators, lighting, air conditioning and amenities. May also include layout, aisle placement and width, carpeting and architecture.
- Convenience - convenience-general, location and parking.
- Promotion - sales promotions, advertising, displays, trading stamps, symbols and colours
- Store atmosphere - customers feeling of warmth, acceptance or ease (atmospherecongeniality).
- Institutional factors - conservative-modern projection of the store, attributes of reputation and reliability.
- Post-transaction satisfaction - merchandise in use, returns and adjustments.

Lindquist, however, recognised that although from the literature review there had been a comprehensive list created, no empirical conclusions had been made of factor combinations. With regard to interpretation of signifiers, or cues Riley (1994) proposed the idea that the 'environment' tells a story and the clearer and understandable, or uncomplicated this is seen by customers the easier it is for them to recognise aspects and identify with them according to the dimensions of their lifestyle. An example of this theory would be to keep a theme constant throughout the restaurant, style of service and menu. However, trying to communicate atmospheric and design information to restaurateurs is difficult.

In Auty's (1992) study the majority of the restaurant managers/owners involved did not believe they had many competitors and acknowledged they did not respond to competitor activity. Instead they were so confident of their own performance they believed that their competitors would respond to them. Finkelstien, (1989) took the
opposite view and considered that what restaurant customers were looking for was not a new concept to restaurateurs. In fact, according to Finkelstein, restaurateurs have been aware of the importance that aspects and features, such as atmosphere, play for customers when eating out and in some cases it was noted that restaurateurs paid more attention to the atmosphere than the food itself. In Balazs' (2001) study of some of France's most well-known and acclaimed chefs, although the chefs admitted that their passion was the food, they acknowledged that the dining experience they created is far more than just the food and included the atmosphere, décor, the waiters and table setting, and in effect they were selling to the customer "something intangible and ethereal" (Balazs, 2001: 142).

As the trend in new restaurant openings continues, customer choice becomes increased and potentially customer re-visits occur less frequently. Thus, for restaurateurs, attention to atmospherics has become more important. As Johns and Kivela's (2001) study showed, each time a customer visits a new restaurant they experience a high level of anxiety. Although customers may not return to a restaurant due to the availability of places to eat, an affirmative experience is never the less required in order for customers to deliver positive 'word of mouth'. When Jones and Kivela (2001) looked at the intangible, in relation to their cohort's comments regarding first time restaurant visits, it was found that the customers were very wary of being in an unfamiliar environment and found that other customers and staff could exacerbate these feelings. Jones and Kivela (2001) comment that staff fit into two roles: by being in the environment of the restaurant they were considered a physical aspect and not found to be a problem, in fact, they could add 'authenticity'. However, when interaction was necessary with a staff member they were seen as potentially 'hostile' by the customer. Furthermore,
customers eating in a restaurant for the first time cited feeling as though they were on someone else's territory.

People prefer to eat in groups when dining in restaurants, which as Sommer and Steele (1997) suggested, could be due to customers not wanting other diners to think they do not have partners, or friends. This concurs with Pettinger, Holdsworth and Gerber's (2004) study, which indicated that customers prefer dining in groups and were likely to have a more enjoyable experience when in a group, due to being able to act as a crowd, when situations with staff, or other diners arise. Subsequently, it has been proved that when customers eat in groups they consume proportionally more food than when individuals eat alone (King, Weber, Meiselman and Lv, 2004). In the King et al, (2004) study, satisfaction of the main component of the meal did not increase when diners had social interaction. This could indicate that increased meal enjoyment is only linked to eating in a social setting when companions create a comforting environment for each other, examples being friends, or relatives. Grove and Fisk's (1997) study looked at how the presence of multiple customers influenced each other and Shamir (1980, in Grove and Fisk,1997) identified that customers who are in the same service environment demand different requirements from the provider and the way in which the business manages their different customers can produce "inter-client conflict".

Potentially, other customers present may also enhance an experience by providing excitement (Lovelock, 1996 in Grove and Fisks, 1997). Lovelock suggested that in order to manage the situation, customers' appearance, behaviour, age and so on needed to be regulated to try to ensure customer satisfaction. Grove and Fisks (1997) study into customers waiting in lines at a tourist attraction found that negative consequences of other customers, such as increased waiting times, caused issues with their cohort.

Additionally, it was noted that different customers cannot all be provided with the same experience, for example, a noisy group enjoying themselves may subsequently create a negative atmosphere for another customer group.

Addressing issues of customer trepidation, as Johns and Kivela (2001) comment, is about staging a welcoming environment for the customer, through positive and often intangible cues. An example can be seen in Bowen and Morris' (1995) study where they cite how aspects, such as, colour, design and illustrations, when used correctly on a menu, cannot only increase sales of food items but can also convey the personality of the restaurant.

Due to the numbers and choice of restaurants, customers can elect not return to the same restaurant to eat, this however contradicts the purpose of a restaurant putting effort into the service, décor and staff, to gain business from word of mouth, build reputation and most importantly encourage customers to return. Wildes and Seo (2001) concluded that retention of existing customers is five times less costly than trying to attract new customers and if errors occur, correcting these, in cost terms, will be far less than losing the customer's business altogether. Kivela, Inbakaran and Reece (1999) suggest that a customer's decision on whether to return to a restaurant is the 'moment of truth' for the restaurateur as this would demonstrate whether a customer has had their expectations either met, or exceeded.

Tse, Sin and Yim (2002) demonstrated in their study how customers are constantly evaluating their environment and bring into discussion how often the assumptions that people make are psychologically protecting rather than down to preferences. In fact when a person has little control over their environment they will form attributions
regarding the situation in order to regain control, so if at a point within the meal experience something unexpected happens, or a negative event takes place, the customer will generate an attribute (Mattila and Petterson, 2004). The assumptions made are not always negative and Tse et al (2002) use a crowded restaurant as an example. In a crowded situation a customer will need to understand the environment and so will attach their own theories as to why the restaurant is busy. In the case of a crowded restaurant this brings about positive attributes for the customers, such as, the presumptions of 'high quality', 'delicious food', 'low prices', or 'good restaurant reputation' whereas, the perceived perception of an empty restaurant is that it must have 'low quality food', be expensive and have a poor image (Tse et al, p450/452, 2002). This demonstrates how customers are constantly influenced by cues, many of which happen automatically for psychological purposes.

Furthermore, links are made from the initial conclusions to making additional assumptions. In the Tse et al (2002) study it was suggested that further research was needed to find a balance between the good attributes formed when customers saw a busy restaurant but which were counterbalanced by customers being concerned as to whether they would still receive good, timely service due to the number of other diners. This theory of customers making assumptions may go some way to explain why, when people ate the exact same meal but in different environments, they rated the food differently (Edwars, Meiselman, Edwards and Lesher, 2002) and also demonstrates the influence of pre-meal expectations.
"Design indelibly colours your entire dining experience...you consume the design with every bite of the food" (Brennan, 2011). Furthermore, when looking at how pleasing an environment is to customers a number of dimensions, it is suggested, (Clarke and

Schmidt 1995) need to be combined. Complexity (visual richness, ornamentation, information rate) has been found consistently to increase emotional arousal, whereas coherence (order, clarity, unity) has been found to enhance positive evaluation (Nasar, 1989). Furthermore, compatibility has been found to work well in restaurant settings and refers to how well a place blends in with its surroundings and is related inversely to contrasts (in colour, texture, size and shape) with the natural background (Bitner, 1992: 63 in Clarke and Schmidt, 1995).

Bitner (1992) cites that little has been published regarding the effects of spatial layout and functionality on customers in commercial service settings. Spatial layout within a restaurant is the way in which equipment and the furniture are arranged along with their size and shape and the spatial relationships between the items whereas, 'functionality' refers to the ability of the equipment and furnishings to perform and serve a purpose. Bitner (1992) makes the observation that there is a lack of empirical research, or theoretically based frameworks examining how physical surroundings affect 'consumption settings' from a marketing perspective. The physical environment of a business is rich in cues which can suggest capabilities and quality to customers (Rapoport, 1982 in Bitner, 1992). However, Bitner (1992) proposed that often factors such as pricing, advertising, added features and promotions are considered more than the physical surroundings as ways to attract and satisfy customers.

In Clarke and Schmidt (1995: 150) they quote Ward, Bitner and Gossett (1989) to demonstrate how environmental cues can affect customer evaluation of the restaurant experience:
".....products have symbolic meaning and are evaluated, purchased and consumed based upon their symbolic meaning....the concept is highly applicable to services whose evaluation may be
strongly influenced by inferences based upon the symbolic meaning of cues encountered during service delivery".

The design of premises can therefore produce cognitive responses in people and can determine opinions about a place and customer beliefs about the people and products found in that place (Golledge 1987; Kaplan and Kaplan 1982; Rapoport 1982 in Bitner, 1992).

### 2.5 Semiotics

Perhaps one of the least researched areas of the restaurant experience are the intangible aspects that influence the environment. Semiotics may influence the atmosphere, or ambience of the meal experience and this section will discuss the meaning of semiotics along with the interpretation of semiotic cues.
"Broadly speaking, semiotics analyzes the structures of meaning-producing events, both verbal and non-verbal" (Mick, 1986: 197). Semiotics has two pathways: 'general semiotics' that seek to answer, for example, "what is the nature of meaning" and 'specific semiotics' which addresses "how does our reality - words, gestures, myths, products/services, theories acquire meaning" (Ransdell, 1977). In order for sign production and interpretative responses to be understood semioticians investigate the sign systems, or codes relating to all types of communication (Mick, 1986). As semiotics looks at 'meaning' it is different to any other social science and Harman (1981, in Mick 1986) considers that as 'meaning' is not physical, or measurable it is therefore awkward for scientific researchers to deal with. However, despite 'meaning' not necessarily being a measurable factor it does need investigating as it continues to be present in customer answers in research exercises. This was illustrated by Johns and

Howard (1998) who found, through their study of customer expectations, that there was an issue with coding a number of responses due to the fact that the respondent/customer had interpreted the item in question into a 'meaning'. Johns and Howard use the example of a high chair being present in a restaurant, which was perceived in the study, as the establishment providing the high chair, demonstrating friendliness and having empathy with its customers. Another factor - cleanliness, had the meaning that the establishment was seen to show care, attentiveness towards its customers and even demonstrated competence as a business.

People who purchase a product, or service in this context respond to more than the tangible, with atmosphere being more influential than the product itself (Milliman, 1986). Atmosphere refers to what cannot be seen but is instead 'felt' and Kotler (1974) uses the terms 'spatial aesthetics', or 'atmospherics' to describe the process of creating a space to produce desired effects for customers. Milliman (1986: 286) describes 'atmospherics' as elements such as "brightness, size, shape, volume, pitch, scent, freshness, softness, smoothness and temperature". Temperature, lighting, noise, music and scent affect the five senses and are also known as "ambient conditions" (Bitner, 1992). A small number of studies have been carried out into the effect of certain ambient conditions on customer behaviour, such as, scent in restaurants and music tempo (Gueguen and Petr, 2006; Milliman, 1986) however, these studies are limited in scope.

In Johns' (1999) paper looking at the meal experience, Pine and Gilmore (1998) are cited as suggesting that the western economy is changing from a 'service base' to an 'experience base'. Additionally, Johns suggested that this transition is nowhere more obvious than in the restaurant industry through both tacitly and overt methods
dependent upon the outlet. Alongside the developments of the 'experience economy', or businesses creating memorable events for their customers, Johns (1999) suggests that another development is that of the action of service becoming linked with emotion and ultimately the 'meaning' of service to the customer. Johns (1999) highlights how Pierce's semiotic triangle (1934) can explain how people 'consume' experiences within restaurant settings.

Pierce (1934, in Johns 1999) through the semiotic triangle shows how pictures, objects and actions can all be seen by customers to signify a meaning as well as be interpreted differently depending on the person who is translating the sign. Johns (1999) uses 'semiotics' to explain that the 'experience' can only occur for customers if they create their own dining experience through looking at appearances, objects and people and then relating these cues to meanings that already exist for them. Although each customer is different and each cue is likely to have many meanings the likelihood is that on interpretation only one message will be focussed upon by customers (Johns, 1999).

Artwork, photographs, floor coverings and personal objects all communicate symbolic meaning and cues to the customer (Bitner, 1992). Such symbolic and aesthetic communication is complex and, as Becker (1977, in Bitner, 1992) and Davis (1984) conclude, what is communicated may be intentional, or accidental but subject to multiple interpretations and subsequently may induce both intended and unintended consequences. Johns (1999) also comments that some cues may be unintendedly placed by the restaurateur or may be mis-interpreted by customers and that it is important to firstly convey the right 'message' as well as removing any cues that could cause false messages.

The environment can be considered a form of nonverbal communication (Rapoport, 1982 in Bitner, 1992) and although the design of a business can take into consideration the desired outcomes of both customers and staff, due to the way people respond to their environment - cognitively, emotionally and physiologically, all of which determine their responses, (Bitner, 1992). It is therefore, an individual's personality that ultimately influences their reaction to the physical surroundings (Mehrabian and Russell 1974; Russell and Snodgrass 1987). Milliman (1986) suggested, using Mehrabian's and other environmental psychologists work as examples, that people react to their environments due to their feelings and emotions and additionally people can respond to their environment with varying sets of emotions which subsequently encourages them to approach, or avoid the environment in question (Donovan and Rossiter, 1982: 39 in Milliman, 1986).

Although personality traits can be relatively stable, plans and purposes for being within an environment change and, as such, this can affect both mood and what an individual notices and remembers (Bitner, 1992) and how responses are influenced (Russell and Snodgrass 1987; Snodgrass, Russell and Ward 1998 in Bitner, 1992). Belk (1975) reflects that for behaviour to be predicted, or explained both environmental and personal variables need to be considered. Bitner (1992) further suggested that if expectations of an environment are met, or exceeded for a person then they are likely to react positively and the opposite being true if expectations are not met. It is past experiences of other restaurant environments and preconceptions gathered from external sources that influence the customers' expectations (Schmalensee, 1976).

The delivery of the signs, or cues is very important, as Carbone and Haeckel (2005: 4) comment, "style must be consistent with the targeted perception of the experience and
should not come across as manipulative". However, how convincing the message is and in-effect how polished, rather than clumsy, the delivery is, can cover any signs of manipulation and be greeted positively by customers. Carbone and Haeckel (2005) suggested that cues can be either performance, or context based, performance being the action, or performance of the service, and context relating to aspects, such as, the décor, smell and cleanliness.

Guéguen and Petr (2005) comment that no previous studies had examined the effect on a restaurant setting of introducing different odours. In their 2005 study the results demonstrated that a lemon aroma did not significantly improve length of time spent in the restaurant and average spend, whereas, a lavender aroma increased length of time spent in the restaurant and the average spend compared to when no aroma was present. The suggested rationale for this is that the lavender aroma has a relaxing effect compared with lemons, recognised for their stimulating properties. Laird's (1932) study examined customers' perceptions of quality and the link that this has with aroma. Laird believed that the desirability of an item is judged by its colour and design and these attributes then play a role in determining "the complex estimate of quality". During this study participants were asked to choose an item of clothing they deemed to be of the best quality. Although all of the products were identical the products with a scent provided more positive responses than those without although not all of the scents proved equal. This, as Laird concluded, indicated that aromas can affect quality perceptions and certain aromas are more persuasive than others in influencing decisions on quality.

When passing judgements, people will always be moved and appealed to by something with a pleasing form (Kotler and Rath 1984; Nussbaum 1988 in Bloch 1995). When
evaluating 'appeal', this is usually applied to an actual product, and as semiotics considers the sign, or cues from objects there is an interpretation of that object, or person. So 'appeal' plays a large role in creating positive interpretations, therefore, if the appeal of an object, person, or the atmosphere induces semiotic interpretation then a positive human response, or thought will follow. Making people favour objects is not an idea that has come about recently with an increased emphasis on product marketing and advertising but has always existed and can be seen in civilisations starting with the decoration of weapons, pottery and clothing (Beker, 1978 in Bloch 1995).

There are a number of manipulation methods that have been demonstrated to have had an effect upon restaurant customers. In their research Garber, Hyatt and Starr (2000) carried out a study which looked at how food colour affected customers' perception of food flavour. As part of the study the authors initially carried out an audit which highlighted that the use of colour in food is mainly for flavour influences. Moir (1936) as reported in Moskowitz (1978: 163 in Garber, Hyatt and Starr, 2000) carried out an experiment to show how the colour of food can affect customers' perceptions. During a dinner where several foods were inappropriately coloured there were a number of incidents of diners complaining about 'off' flavours and subsequent illness despite only the colour of the foods, not taste, quality, smell, or texture, being altered. The results of the Garber, Hyatt and Starr (2000) investigation indicated that customers' use colour to identify foods and this informs flavour profiles and preferences. Additionally, taste is less influential to customers compared with the information they deduce from colour.

Naipaul and Parsa's (1997) study demonstrated that businesses that operated at the high end of the market, and wished to be seen in this way by the customer, often end the price of their food and beverages on the menu with a ' 0 ' which is referred to as
'psychological pricing' (Nagel, Holden and Monroe, 1997 in Naipaul and Parsa, 2001). This has huge implications for restaurants as the menu is a necessity in not only providing food information for the customer, but as Naipaul and Parsa's study shows, may also be used to communicate a quality message.

Bloch's (1995) model of customer responses to product form (Figure 2-2) demonstrated how complex the process of response is and how many factors affect decision making in terms of appeal and positive response. Cultural forces also shape how customers decide on their preferences for appeal (McCracken, 1986; Carvellon and Dubé, 2005) due to what values a particular culture holds. In addition to cultural influences, individual preferences also change, Bloch (1995) referred to these as 'design acumen', 'prior experience' and 'personality'. All of these factors play a role in the thought process of individuals, for example, those with design acumen have been found to have faster sensory connections and demonstrate more sophisticated preferences in terms of design than people who have lower design acumen (Csikszentmihalyi and Robinson, 1990).

With regard to personality traits, a number of influencing factors on choice have been studied from comparisons between those who veer towards romanticism, or classicism in their choices. People fall into two categories those who prefer the unusual, due to a high optimum stimulation level and who would rather be pleased by the effect on their senses and emotions, whilst there are others who tend to respond to anything which is linked with sensory innovativeness, or visual processing (Bloch, 1995).

Figure (Text/Chart/Diagram/Image etc.) has been removed due to Copyright restrictions.

In order to develop the model for the reasons behind customer choices (Figure 6) Bloch (1995) had to consider opinions from different disciplines including art, psychology, marketing and customer behaviour. Although much of the previous work looking into the appeal of products and objects has come from marketing, Bloch (1995) cited that within the field of marketing the use of the term 'product' can in fact be applied to goods and services in both tangible and intangible forms and often with elements blended in order to induce a sensory effect. Furthermore, if a positive response from the customer is required then anything which is purposely placed to achieve a positive semiotic effect, has to be considered in the overall aesthetic mix including interior design of the setting and the physical appearance of personnel. Although a semiotic cue may be positioned to have an effect upon customers and the product may be an independent variable it will not necessarily have interdependence amongst other elements which make up the overall setting. Therefore, it will be the blended mix of cues which will induce the reaction leading to responses to both the tangible and intangible.

The semiotic studies reviewed thus far have been concerned with the whole meal experience of the customer rather than focussing on the semiotic cues which have been purposefully controlled by the restaurant and the impact these have had on the customer experience. Very few systematic observational studies have been carried out in restaurants, perhaps the most common out-of-home consumption setting in the western world (Sommer and Steele, 1997). Moreover, a number of studies have highlighted how little research has been carried out into actually finding out what customer expectations are, along with how once the expectations have been met these contribute to providing a positive experience for the customer (Lockyer and Panakera, 2004; Clark and Wood, 1998).

Semiotics may not be understood or considered by some restaurateurs, however, as this chapter has shown there are many messages conveyed to customers through semiotics which could potentially enhance, or ruin a restaurant experience. Although semiotics may form part of the disconfirmation process it also has a place within this study because it will contribute a factor within expectation formation development.

### 2.6 Customer Satisfaction

The customer satisfaction section looks at the variables that may be applicable to different meal situations and how they can impact on the overall acceptability of the meal.

Work carried out by Clark and Wood (1996) has brought together their own findings along with those of June and Smith (1987) and Lewis (1981) to conclude that although the meal experience is made up of a number of factors, such as, atmosphere, service,
price and food it is the tangible aspects which influence customers' choice of restaurants. This information may provide some understanding as to what are the important aspects of the meal experience for customers. Although many attributes may make up the meal experience and a number of researchers, such as, Auty (1992); Bitner, (1992) and Milliman (1986) consider the intangible as important as the tangible. If as Wood and Clarks (1996) work suggests, that despite the occasion, it is always the tangible aspects which feature as more important for customers, then this highlights how important the meal itself is within the restaurant experience.

To further complicate the issue as Zellner (2007) discussed that although many people would argue that they pass accurate judgements on the hedonistic aspects of foods, in actual fact studies show that how the food has been presented or the context that the food is consumed in will affect ratings of 'goodness'. Some rationalisation of judgements is understood because when assessing food 'likability' it has been identified that both 'good' and 'bad' can be acceptable when assessed separately, although obviously when set against each other, testers preferred the 'good' product. This, nevertheless, indicates that what can cause a bad opinion of a meal can be if the meal is out of context, so not appropriate to the setting, or expected standard and when there are discrepancies between the overall attributes of the meal. One solution to customer judgements that Zellner (2007) suggested was that anything which is likely to be rated by customers' needs to be seen as 'unique', this, therefore, prevents comparisons being made. Obviously, this is not always possible but to further understand how the context affects customer perceptions Meiselman (2002) suggest that four aspects impact upon how a customer relates context to satisfaction of the meal:

1] Function as a meal component,
2] Social interaction during consumption,
3] Environment and
4] Food choice freedom.

Despite a number of factors specific to an individual that can alter their likes and dislikes, there are also a number of aspects which may contribute to satisfaction within the restaurant environment. With regard to the physical environment, a number of individual elements create the 'atmosphere' which can impact upon the meal experience, namely lighting, sound, colour and expectations set by the perceived standard of the environment. It is important that the environment has the correct amounts of temperature, lighting and acoustic conditions (Macht, et al 2005) and in the right balance. If these basic environmental conditions are not in place this will subsequently have an impact on the desirability and pleasure received from the food.

The basic requirements of the environments for enjoying food are: cleanliness, calmness, neither too cold, nor too hot and neither too bright, nor too dark (Macht, Meininger and Roth, 2005). Social setting looks at the influence that others have over a meal experience. This is an important factor due to an increased number of meals being consumed by more than one person than by lone individuals. Finally, customer choice is a context which is thought to sway opinion, however, there is little conclusive research into this area because although variety has been shown to increase satisfaction (Bell, Meiselman, Pierson and Reeve, 2004) there has not been enough research in one setting, either field or laboratory, to conclusively decide the relationship between choice and satisfaction.

Weber, King and Meiselman's (2004) study demonstrated the impact of the environment and how manipulating factors can actually influence food consumption with the conclusion that altered environmental conditions can impact on quantities eaten. Again, this study highlighted the contextual aspect of eating as playing a role in customer satisfaction with their food. Perceived choice is also an important factor in customer satisfaction. In longitudinal studies looking at the monotony of food, it can be seen that the consumers of provided food ate less and rated the palatability of the food lower as time went on (Kramer, Lesher and Mieselman (2001). However, when someone chooses to eat the same food repeatedly, it has been found to not impact on how pleasant they find the food (Zandstra, deGraaf and van Trijp, 2000). Although as Kramer, Lesher and Mieselman (2001) highlighted caution must be taken in assuming people are content to eat the same foods as in certain situations, such as, in the home, or in a laboratory setting, as refusing the food, or showing dissatisfaction, might be considered inappropriate behaviour.

In the Weber, King and Meiselman (2004) study it was indicated that choice extends beyond the menu as a change in eating habits was seen when respondents were offered a dressing to compliment the salads offered. When salad dressings were offered more salad was consumed then when a plain salad was provided to the participants. This would indicate that other factors, rather than just the food on the plate, play a role in making up the meal experience for restaurant customers.

As Mustonen, Hissa, Huotilainen, Miettinen and Tuorila (2007) discussed, although choice can impact on how food is rated by the customer, what precedes choice and starts the whole acceptance process were the actual expectations of the food. In Mustonen's et al (2007) study they tested participants acceptance of different cheeses by first having
participants rate the cheese in order of their expected preferences. Initially the cheeses chosen to eat generally featured as one of those on the upper-ends of the participant's choices. However, over time the participants were seen to expand their choice of cheese to include those that they had not initially rated as their favourites indicating that choices are in-line with what current tastes a person has, as opposed, to initial reactions to food. A key factor to highlight within this study relating to food choice and restaurant customer satisfaction, is that in the Mustonen's et al (2007) study, short-term flexibility over choice was low (participants initially chose to eat their favourite cheeses). Therefore, as meals in restaurants happen over a short period of time, if there is a lack of choice, or an option chosen by the customer is not available, this would imply that there would be an impact on how the meal experience was perceived by the customer.

Choice can be influenced as Wansink, Painter and Ittersum, (2001) demonstrated through their study. Where by providing alterations to a meals name, to convey more information, sales increased by 27 per cent and it was also acknowledged to induce loyalty and positive feelings towards the establishment.

Although it may be very difficult for a restaurant to determine what choices their customers will want, the issue appears to be that there should be a choice of foods befitting of the standards conveyed by the restaurant. As can be seen from the salad dressing study by Weber, King and Meiselman (2004), the provision of choice can also improve food uptake. When food choices are offered on a menu and then additional choices can be achieved through, for example, the provision of condiments and dressings, then this may heighten customer satisfaction. However, restaurateurs may see this as a difficult challenge to attempt to provide food choices to make every
customer happy. Berridge's work (1996) may add some ease to this problem as it was suggested that wanting and liking are not necessary linked functions within the human brain. Therefore, appeasing customers by understanding why they have chosen to eat out and offering customers the suitable pre-expected experience and menu may be enough without the requirement of predicting what every customer would want to eat.

To further encourage a good meal experience, work carried out by Dubé and Cantin (2000) suggested that it is possible to encourage customers to be enthusiastic about the food that they are to consume. Although it may be necessary to initially feel positive towards a food, Dubé and Cantin suggested that "...persuasive, emotional appeals..." (as opposed to informational appeals) can influence the idea of liking the food even more. In a restaurant context this fits into understanding why a customer has chosen the restaurant in the first place and appealing to them in the correct way or "..communications that match the attitude functions.." (Dubé and Cantin, 2000:258). Subsequently, this emotional encouragement may be a factor in a restaurant customer enjoying the meal experience, especially, if initially, they were not particularly enthused by the food items offered on the menu. This would then bring into the experience the role of restaurant staff.

Murray, (1991) suggested that when a customer sees a risk (in a restaurant this could be interpreted as being unsure of food items on the menu, or what to choose) then there is a greater tendency for the customer to look for guidance about the 'risk'. For maximum influence the waiting staff need to be perceived by the customer as mature and committed (Engell, Kramer, Luther, Adams, 1990; Pratten, 2004). Influence (either positive comments, or negative comments) has a low impact on those customers who have made up their mind (Edwards and Mieselman, 2005) but in a restaurant setting if a
customer cannot choose what to eat from the menu Edwards and Mieselman (2005) contended that customers can be swayed in their decision making. Therefore, by having appropriately behaving staff present, customers can be encouraged to make a choice from a menu which initially may not have been appealing.

Other factors that have been proved to significantly influence choice are sensory appeal, health, convenience and price (Steptoe, Pollard and Wardle, 1995). Within a table service restaurant convenience would be obsolete, however, the other three factors would be relevant and could play a role in influence. Steptoe et al, (1995) discussed how certain issues are more important to different people, for example, for those on a lower income, price is important, whereas, for those with higher disposable income, sensory appeal proved to be more important. These factors should, therefore, be considered by a restaurant when trying to encourage customers to view the food choices on offer positively. Although, it would be necessary for the restaurant to be self-aware of the image that they portray and the customers' that they were to typically serve, in order to focus on the correct influencing factor.

In different meal scenarios restaurant customers will expect certain variables to be present, furthermore, these variables may also be rated differently dependent upon the meal experience expected. These variables, such as, lighting, cleanliness, temperature, choice and so on are factors that meet with 'acceptance' to contribute to the overall meal experience which will determine if a customer expectations have been met.

Restaurants need to understand their target market and appeal to the specifics, whether it is the likely reasons behind eating away from home, price, sensory standards and so on, of their typical customer base.

### 2.7 Customer Expectations

It is accepted that customers generate expectations as a "simple function only of past observations" (Schmalensee, 1976). The 'Customer Expectations' section aims to provide insight into what factors create expectations and what influences customer measurements of meal experiences.

Eating experiences have been studied from many viewpoints, (Macht, et al 2005) however, when eating in restaurants the decision-making process that occurs beforehand can be assumed to have been one that has not derived from biological need. In Jackson, Cooper, Mintz and Albino's (2003) work they comment that there are a number of reasons which drive humans to consume, these are "to cope with negative effect, to be social, to comply with others expectations, and to enhance pleasure".

Swan and Combs (1976) highlighted that little research had been carried out to understand customer satisfaction and their subsequent work looked at expectations, performance and relationship in order to understand customer satisfaction. This provided some additional information relevant to how customers may interpret their meal experience. Although Swan and Combs (1976) work related to how customers' judged items of clothing, their findings can be related to how customers consider their meal experience, as the research evidence appears to show that expectation plays a large role in all decision processes. The hypotheses tested in the Swan and Combs (1976) study looked at how customer satisfaction related to the fulfilment of expectations and if this was judged on attributes that were either linked to supporting satisfaction, or dissatisfaction. Work by Myers and Alport (1968) suggested that the decision making process is linked with attributes that are not standard. The example used was when purchasing a car, safety might be taken for granted and it is more likely to be the style
of car that influences choice between cars. However, post the decision making process, for the product to be seen as a success by the customer, Swan and Combs (1976) findings suggested that 'instrumental performance', or the performance rather than expectation criteria must be fulfilled for customer satisfaction to occur. Significantly, however, an attribute which leads to dissatisfaction may not be one which appears when satisfaction occurs and furthermore, the research concluded that the weighting of importance placed on each attribute by an individual is difficult to measure.

If customers' perception and ratings of acceptance are linked with the level of expectation experienced by the customer - which has been created by the restaurant, it is important to know what factors influence customers to choose a particular restaurant initially. Pedraja and Yague (2001) suggested that, to begin with there has to be a need which a restaurant can offer a solution to, whether it is to avoid cooking, to gather a group of people and so on. However, if a restaurant is not known to the potential customer there are still a number of methods by which a customer can deduce if a restaurant meets their requirements. Pedraja and Yague (2001) group these into "passive and active levels" (2001: 316). In 'passive state' people will pay attention to adverts and accept recommendations, or overhear and take on board the commentary of others, whereas in 'active state' potential customers may visit a restaurant before booking, or read the menus before choosing the restaurant. In Clow, et al (1997) looking at the expectations of service industries and how customers form opinions of expectation there is an acknowledgement that expectation does impact on how customers judge their experience, or the service. This is further highlighted by the work of authors such as Bitner, (1990) and Tse and Wilton (1998). Clow, et al (1997) discussed how tangible cues, price, word of mouth and past experiences all modify customers' level of expectation and how this then impacts upon the evaluation process.

This work combines well with the work of Cardello (1995), however, to really understand how customer expectations are formed it is necessary to uncover what provokes expectation, as opposed to concluding that it stems from generic factors, such as, price, or image conveyed.

With regard to how customers begin to form images and expectations of companies Clow, et al (1997) comment how advertising had little effect on how customers view a company. Subsequently, they suggest that there was no obvious link between advertising and how customers formed an image of a company, even though on first consideration image would seem to be an obvious message to be conveyed by advertising. Therefore, it is suggested that 'image' and 'advertising' have been neglected and have not been specified with regard to understanding how and what customers use to construct an 'image' of a business. Furthermore, Clow, et al (1997) suggested that it is also possible that within different industries customers construct images of businesses using different cues.

Although not restaurant specific, work by Boulding, Kalra, Staelin and Zeithaml (1993) suggests that perceptions are derived from what customers think will and should happen during the service encounter. In addition to this, positive attitude formation comes from what Johnson and Mathews (1997) describe as the influence of regular encounters and how the brain improves attitudes towards a context if there is increased exposure. That is, if using current information from memory, higher expectations will occur when considering a future service encounter if the same experience has recently occurred. For example, repeat patronage of a restaurant. This concept stems from work looking at the "exposure effect" (Zajonc, 1968 in Johnson and Mathews, 1997).

### 2.7.1 Customer Acceptance

The customer acceptance section demonstrates how meal expectations and acceptability are linked by highlighting how expectation is not a fixed point. Therefore, by accepting that expectation is relative to different situations, satisfaction can occur at all levels.

Taste and pleasantness ratings of food by customers have to be treated with caution because as Macht, Meininger and Roth (2005) highlighted, at any one time a number of physiological factors within the human body can impact on the appeal of a food, or meal. Additionally, individual tastes can also sway the way in which a customer rates a food experience (Bolles, 1991).

A significant area of research, where understanding of what makes food acceptable for consumption, is work carried out on food acceptance by the military. Much research has been carried out to understand the conditions of acceptability of food in military setups and as part of The Quartermaster Food and Container Institute of the Armed Forces, USA, a food acceptance branch was formed in 1944 (Meiselman and Schutz, 2003). This unit allowed for the prediction of the acceptability of both daily food, as well as, rations. However, although this unit was trying to determine what would be acceptable for soldiers to consume, the testing was carried out in a laboratory setting where experienced human taste testers and animals were used as opposed to actual 'field' research using soldiers. Although the transfer of information regarding aspects, such as, appetite regulation, human senses and psychophysical studies were said to be able to be successfully implemented for use by soldiers in the field, a development occurred when a long-term study was implemented by Hirsch and Meiselman (1984). In that study, which measured the acceptance of rations over time, soldiers away from their base were monitored and it was concluded that soldiers eat less when in the field than when using
a cafeteria on base. This result may never have occurred if the research had been laboratory based.

As Miselman and Schutz (2003) highlighted natural eating studies are of value as they often establish results that would not occur under laboratory conditions. This US army research demonstrates, that food acceptance can be broken into three areas; "food factors, soldier factors and contextual, or situational factors" (Meiselman and Schutz, 2003: 211). Transferring this information into a restaurant setting, the factors necessary for assessing what makes a good meal experience would be: the food, the customer and the restaurant environment.

Cardello (1995) suggested that customer acceptability of food is what demonstrates the best way to measure customer satisfaction and factors, such as, choice are secondary and only occur because of food acceptance. Moskowitz (1995) demonstrates how acceptability is the best way to establish customers' liking food by using the example that although 'junk food' is linked with poor quality and such food is even classed as 'junk' people like it and choose to eat it despite the acknowledged low quality of the food. This is a good and insightful demonstration of a food meeting expectations and, therefore, being acceptable and liked by customers.

The idea that acceptance is not just based on experiencing the best, highest quality, or standards is supported by Pavesic (1989) who suggested that customers evaluate a restaurant on their perception of their chosen place to eat and whether it falls into the 'eat-out category', in which case it can be aligned with home cooked food standards, or whether the meal is a 'dine-out opportunity' where expectations would be higher.

Maskowotz's (1995) work is focussed on 'liking' but is related to quality and is very specific in terms of demonstrating what makes up quality. This can be seen through an analysis of what constitutes quality and defining it into flavour, texture and appearance and how these can be maximised in a product to appeal to the mass market, and how manufacturers try to ensure their products satisfy at least one driver of quality for customers. However, this highlights how different individuals' tastes can be and relates to Weber, King and Meiselman's (2004) work that suggested that for a good experience there should be variety on the menu it also demonstrates the need to understand all of the senses and ensure they are all catered for within a meal in order to capture each individual customer. Moreover, the study by Brunso, Fjord and Grunert (2002) found that there was a strong relationship between visual appearance (perceived quality cues) and expected quality. This combines well with the studies by Cardello (1995) who noted that there is a link between many authors work with regard to standards meeting the expectations of customers, if the expectations have been encouraged and set by the restaurant itself.

### 2.7.2 Expectation Formation

"Expectation - a belief judgement regarding a future event or state of affairs".
(Olson and Dover, 1976: 169)

So far these expectation sections have discussed expectations in terms of what expectations are and what variables can have expectations placed upon them. However, to this point the purpose of an expectation has not been discussed, therefore, this section will look at what happens to an expectation - the rationale for forming expectations.

Expectation has been split into a number of research areas, the main area, in relation to dining out, has been to look at what customers form 'general' dining out expectations about. A number of authors (for example, Johnson and Mathews, (1997); Boulding et al (1993) have studied this area and many build on previous work with some providing rationale for changing how to look at expectation variables. Another area looked at has been post the point of creating expectations and what 'happens' to the expectation. Other research areas have also included, subjective evaluation, economic theory, uncertainty, memories based on experience (Tolman, 1932), post-purchase effect on pre-purchase expectations (Oliver, 1977). Oliver and Burke (1999: 196) comment on their research into the working of expectations and highlight the number of ways that expectations can affect each other, interrelate as well as impact upon scenario in question:


#### Abstract

"Results showed that the expectation manipulation and the expectations thereby created had an immediate but declining effect over the consumption period, that expectations acted as forward assimilation agents for performance, that retrospective expectations were partially influenced by performance observations in the manner of backward assimilation, that expectation-initiated performance comparisons (disconfirmation) and performance judgments were important satisfaction influences, and that the expectancy disconfirmation model is dimension-specific with regard to operation of its components. These findings shed insight into the operation of expectations, performance, and disconfirmation in service environments and illustrate some effects of consumption tracking".


Expectations research is very important because satisfied customers purchase more and spread positive word of mouth, which encourages other customers (Pieters, Koelmeijer and Roest, 1995). In today's current economic climate restaurant businesses need to know what are critical factors for their customers (Autun, Frash Jr., Costen and Runyan, 2010). Expectation theory can be widely applied and is important to many subjects, such as, psychology economics as well as hospitality. However, as Oliver and Winer
discussed (1987: 470) there is no one theory that belongs to any subject area that "can lay claim to a widely endorsed expectations framework". "Sources of customer expectations have been explored by a few researchers. Past experience, reputation and corporate image (Zeithaml et al., 1990), formal and informal communications (Gronroos, 1982; Teboul, 1991), personal needs (Zeithaml et al., 1990), promotional mix (Teboul, 1991) and price (Teboul, 1991) were the main sources of expectations. So, future research is needed to delve more into the sources of expectations" (Soriano, 2002: 1066).

An accumulation of research has established a number of variables that customers may, or may not base expectations upon. Helson (1959 in Oliver, 1980 p461) suggest 1: the product itself including prior experience, brand connotations and symbolic elements, 2 : the context including the content of communications from sales people and social referents and 3: individual characteristics including persuasability and perceptual distortion. Okada and Hoch (2004) found from their work that significant variables in satisfaction of dining out were food quality, dining atmosphere and seating order fairness. Olson and Dovers (1976) work considers that expectations can be created through advertising, word-of-mouth, observations, prior use and written information.

However, over two decades on from work completed by authors, such as, Winer (1987) there is still no conclusive research that determines exactly how people form expectations and how this then impacts on issues, such as, satisfaction, or purchase decision and so on. Although expectation work can be linked with many fields of research, in itself it has been established as fitting into the field of customer behaviour (Oliver and Winer 1987).

If the expectation is the input, then there has to be an outcome and with expectation this is seen by many (Arora and Singer, 2006; Oliver, 1980) as 'disconfirmation' and much work has been carried out looking at satisfaction as a driver of business delivery success. Expectation not only starts the process of decisions and various outcomes but is actually intertwined through the 'assimilation' effect (Pieters, Koelemeijer and Roest, 1994). The experience that the expectation was about will impact upon how the expectation was remembered and the expectation will impact upon how the experience is judged (Pieters, Koelemeijer and Roest, 1994). Another concept to expectations, as Olson and Dover (1976) suggest, is that expectations can be formed sometime before the actual experience takes place. There is a cognitive process underlying the attitude formation and attitude change due to the disconfirmation process, as shows through performance specific expectation (Oliver, 1980).

Expectations are thought to create a frame of reference about which a comparative judgement is made. Outcomes judged to be poorer than expected have a negative disconfirmation and are rated below the original reference point and better than expected outcomes are rated more highly and are referred to as a positive disconfirmation. The outcome is the degree to which a product exceeds, meets, or falls short of expectations - positive, zero, or negative disconfirmation. Satisfaction is then an additive of the expectation level and the resulting disconfirmation (Oliver and Burke, 1999; Oliver and Bearden, 1980). In Pieters, Koelmeijer and Roest's work (1995) it is suggested that an expectation can impact upon an experience, and higher expectations lead to better experiences and lower expectations lead to lesser experiences. Cardozo's study (1965) showed that customer satisfaction was influenced by how much effort was required to achieve the product and additionally what the expectations were concerning the product. The higher the level of effort inputted, the higher the level of satisfaction
achieved, with the additional effect of customer satisfaction being lower if expectations were not met than if expectations were met.

As previously discussed, much work has been undertaken to try to establish a definitive list of factors that customers base their expectations on and which, therefore, could provide the basis for on-going research. Dube and Cantins (2000) work looks at the reason for returning to a restaurant, some of the factors considered included aspects, such as food quality, menu variety, restaurant environment, waiting time. All of these variables are significant but another varying factor is the effect caused by the reason for the visit, for example, business, or leisure.

Tse and Wilton (2001) propose that both male and female customers consider price to be more important than service when choosing a restaurant and the more educated the customer the more importance is attached to price. Brumback (1998, in Soriano, 2002) highlighted how customers need a reason to return to a restaurant and quality of food and fresh ingredients prove to be the highest ranking reasons for this. In Soriano's 2002 study 3,872 customers who participated in the Spanish study were questioned about the following aspects: 'Quality' - menu variety, innovative food, presentation of food and fresh ingredients and food consistency. 'Service' - courtesy of employees, waiting-time before being seated, waiting time before food arriving, waiting time before paying the bill. 'Cost/value of the meal' - food was competitively priced, wine was competitively priced. 'Place' - appearance, ambience, or atmosphere of the restaurant, appliance repair, bathroom, phone service and parking. It can be seen that different researchers' believe that there are different collections of customer expectations and some are more extensive than others.

Koo Frederick and Young (1999, in Cullen, 2004) suggested that from their Hong Kong based focus group work, customer's buy bundles of attributes that simultaneously combined represent a certain level of service quality expected that is related to the price being paid. However, Johns and Howards (1998) work looked at the separate measurement of expectations and perception of service attributes. Their study revealed that from the 100 persons involved in the study, expectations and performance perceptions were based on a similar list of variables - food, price and value. Cullen's (2004) research took a different direction but confirmed that when selecting a restaurant customers consider 2 factors - the strength of belief towards the restaurant and their evaluation of these beliefs based on their knowledge of the restaurant. Prisbell and Andersen (1980) identified that people who hold similar values, beliefs and education are more like to have homophily (non-negative ties with people who are similar in a socially significant way) and interaction and as Autun et al (2010) highlights with homophily comes an easiness for people with regard to aspects, such as, communication, which in turn, could influence judgements on intangible factors like the atmosphere and feelings of comfort.

During the time period of 1951-1960 Katona looked at expectation theory in relation to budget and the restraints that this could have on consumption (in Oliver and Winer, 1987). This remains the main body of work completed where money has been factored into expectation creation and although work has been carried out and commented upon in the area of economics (see Wallis, 1980 and Muth, 1961) it has not always been seen as reliable, or applicable (Oliver and Winer, 1987). A topic closely linked to cost, is value and according to Fredericks and Salter (1995) value can be seen as being price, product, quality, innovation, service and company image. Rubel 1995 in (Arora and

Singer, 2006) also adds that value has a relationship with the worth of the value that competitors will be offering.

As well as price and affordability, Autun et al, (2010) highlight that a considerable amount of research has ignored the social aspects of dining out and Raajpoot's work (2002) shows that much of the well know research such as SERVQUAL (Parasuraman, 1985) and DINESERV (Stevens, Knutson and Patton, 1995) have omitted tangible factors, such as, ambience. The work of Autun et al (2010) came about due to their preresearch measurement scales that have been used to understand customers' requirements. However, as Autun et al explained ... "these approaches have not been exactly successful in that they did not take into consideration the full complement of restaurant customer concerns (i.e., social and health issues)" (2010: 375). The DinEx scale created by Autun et al (2010) includes the variable groups: Social Factors, Atmosphere Factors, Service Factors, Health Factors and Smoking Factors. The authors claim that this scale is efficient and comprehensive and, due to only 20 factors needing to be commented upon, it is very usable and should be well received by foodservice settings. Although this scale is the most up-to-date and considers previous, well known studies, what is immediately obvious about the DinEx scale is how it is not fully applicable to the UK dining out market, as from July 2006 (BBC, 2006) smoking was banned in public spaces in the UK, such as, restaurants and smoking is a featured category on the DinEx scale.

### 2.8 Literature Review Conclusions and Rationale for Study

An overview can be taken of the existing research into dining out and divided between the broad categories of: customers; restaurants, and expectations. However, within all fields of research into restaurant experiences what can be identified from the literature is that there is very little which is conclusive or uncontested.

The meal element is a critical part of a restaurant visit and uniquely incurs a thought process to set expectations prior to experiencing the food and environment. Measurement of the meal against predetermined factors is a crucial aspect of the restaurant experience and can determine if the restaurant visit is to be viewed positively, or negatively. Although there are many theories regarding what factors form dining out expectations, the existing body of work is not conclusive and research regarding the impact of cost is limited. As Robledo (2001) discusses, from an industry perspective it is important for customer expectations to be understood, as without a comprehension of customer expectations businesses will never be able to understand why they are not matching their customers' requirements.

The following table (Table 2-1) summaries the accumulation of information from the previous sections to demonstrate research insights/areas that have formerly been commented upon. By recognising established research, whether it is comprehensive, or inconclusive, and merging with the research gaps identified from Chapter 1, the aim is to underpin, create consistency and influence the developing research study.

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This chapter has examined the existing relevant literature related to the study area. The review has indicated that the focus on hospitality customer expectations in the past has mainly been reflected within the area of satisfaction research. Chapter 2 also examined further topics connected to the defined study area, with the intention of disseminating the related research, to identify the influences and aspects connected with the proposed field of enquiry. The outcome has been the generation of the Key Themes Table (Table

2-1) which will underpin the research direction by being a consideration for the aims and objectives that are presented in Chapter one.

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Chapter one and Table 2-2 illustrate the aims and objectives that have been developed as a result of analysis and understanding of previous relevant context studies. The development of the aims and objectives will direct this study's research to explore both restaurant customer expectations and the impacts of socio-economic factors affecting these customers. Furthermore, the following chapter, Research Design and Methodology, considerers and defines the research issues and processes most appropriate to this investigation.

## 3 Research Design and Methodology

This chapter sets out the considerations taken in order to decide upon the most appropriate research methodology for the study. According to Denscombe (2008) good research is not based on established rules but instead it is for the researcher to make strategic decisions about the research options and strategies to follow. There are four stages applicable to this research which this chapter will identify: research philosophy, rationale for the design of the research, data collection and methods for analysis of the empirical data generated, together with the considerations behind each aspect.

### 3.1 The Research Philosophy

Neuman (2006: 80) highlighted the importance of understanding the different methodological approaches by the explanation that classical theorists developed the argument that through "rigorous, systematic observation of the social world, combined with careful, logical thinking, could provide a new and valuable type of knowledge about human relations". This combination of behaviours meant that over time studying human behaviour has been accepted as a science. There are nevertheless different outlooks on how the science is actually approached and conducted, mainly due to the fact that researchers cannot agree on the differences posed by studying humans. In the 1960s a re-evaluation of the social sciences took place and three new approaches emerged - 'post positivism', 'critical theory', and 'constructivism' and although research can combine elements from each, separately the approaches highlight the differences in outlooks about social science research (Guba, 1990).

### 3.1.1 The Paradigm ${ }^{4}$

Within social science three approaches, or philosophies exist: positivist, interpretive and critical. These approaches are often referred to as 'paradigms' an idea made famous by Thomas Khun (1970, in Neuman, 2006). Neuman (2006) describes a paradigm as a system of thinking that takes into account basic assumptions, important questions and puzzles to be answered, the research techniques implemented and an example of what accurate scientific research should look like in order to answer ontological, epistemological and methodological questions (see Table 3-1). The paradigm of importance to this study is positivist due to the quantitative data generated and objective research conducted.
"Positivist social science is an organised method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity"

Neuman (2006: 82)

[^1]Figure (Text/Chart/Diagram/Image etc.) has been removed due to Copyright restrictions.

### 3.1.2 Research Perspectives

What underlines research are the different possibilities, assumptions, values and paradigms. For the different areas of ontology, epistemology and methodology different paradigms can be followed, each carrying strengths and weaknesses for the study which require awareness (Smith and Dainty, 1991). Choosing the right paradigm concept is important because as Hassard (1988, in Smith and Dainty, 1991) highlights different paradigm stances can impact upon the outcome of the research in practice. Paradigms can be combined in order to answer the research question and it is the research question that should lead all methodological decisions (Smith and Dainty, 1991). However, Hassard (1988, in Smith and Dainty, 1991) questions whether multiple research approaches can be combined by serious researchers due to the constraints of orthodoxy and furthermore that there are so many paradigm schemes that there is a danger of confusion and inconsistency (Smith and Dainty, 1991). Ultimately, despite the array of paradigms and combinations that can occur, the main criteria when choosing the right paradigm within the philosophical frameworks and in addition to the ontological and epistemological considerations is the suitability "for methods to investigate a problem, not for a problem to fit acceptable research methods" (Smith and Dainty, 1991: 5).

### 3.1.3 The Paradigms and Methodology for Behavioural Enquiry

This study's research question fundamentally considers the relationship for customers between cost in relation to expectations when dining out. Due to the lack of significant studies this research must start with a grounded theoretical approach which will provide generative information from extant and study texts (Charmaz, 2006).

Following the judgment of Smith and Dainty (1991) and fitting the research methodology around the question; the area of the study, the participants and environment of the study lends the research to being of an epistemological standpoint. Finally, the framework that best describes the research is a positivist empirical paradigm.

Comte ${ }^{5}$ designed the science of positivism in the early $19^{\text {th }}$ century believing that it was possible to observe social behaviour on a 'positive' basis as with other natural sciences accepted at the time (Cohen, Manion, Morrison and Morrison, 2007). Positivism was created to decipher, through observation and experiments, the sense experiences that generate knowledge and with only firmly established outcomes being accepted as evidence.

Empirical studies do not contradict with positivism as many of the viewpoints of the positivist paradigm were aligned with empirical traditions (Cohen et al, 2007). Five steps in the process of empirical science (Mouly, 1978 in Cohen et al, 2007: 10) are presented below:

Experience - the starting point of scientific endeavour at the most elementary level;

Classification - the formal systemisation of otherwise incomprehensible masses of data;

Quantification - a more sophisticated stage where precision of measurement allows more adequate analysis of phenomena by mathematical means

Discovery of relationships - the identification and classification of functional relationships among phenomena

Approximation of truth - science proceeds by gradual approximation to the truth.

[^2]Within the positivist researcher activities, the researcher should remain independent from the situation making all data collected unbiased. Furthermore, data collected is numerical and tested through established reliable methods to ultimately reflect the situation as opposed to any researcher bias.

### 3.1.4 One Mode of Inquiry Rationale

As Eaterby-Smith, Thorpe and Lowe (2002) highlight, to not consider philosophical methods before embarking on research can affect the quality and the research design. Furthermore, through well-judged decisions about philosophical issues research designs will become apparent with regard to what methods of research to conduct, knowledge of the information style that will be generated and whether the answers will be able to resolve the research questions.

One of the most significant positivist researchers is Pugh. Pugh's 'classic' research work has been recognised since the 1960 s and he described himself as an "unreconstructed positivist" (Pugh, 1983, in Easterby-Smith et al, 2002: 35). Pugh’s key principles of his research strategies that make his work positivist are:

- Focussing on hard data rather than opinions
- Looking for regularities in the data obtained
- Producing propositions that can generalise from the specific example to the wider population
- Facts and values can clearly be separated
(Pugh, 1983, in Easterby-Smith et al, 2002: 35)

Therefore as Table 3-2, Table 3-3 and Table 3-4 highlight a quantitative approach is most appropriate and due to the outcomes that the aims and objectives have been set to
achieve in this study, the single approach, as opposed to, a mixed method is the most applicable.

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Both qualitative and quantitative research is conducted extensively for social science investigations. In many incidences a multi-method approach fits the area of study. However, keeping in-line with the theory that research should answer the research question and through Easterby-Smith et al (2002: 43) findings, there are six key choices of research design. When each of these aspects is compared to the objectives and the nature of the study to be undertaken, it is clear why the single approach of quantitative research is applicable for this research as is identified by Table 3-4.

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### 3.1.5 Research Design

The research design was firmly established as a quantitative methodology. To establish the appropriate measures within the quantitative investigation, literature was used to inform the preliminary stages of the study and the design of the questionnaire. Focussing on the positivist empirical paradigm principles, sound data collection for the formulation of behaviour resulting from the combination of cost and expectations, the method deemed most appropriate was large scale data collection. The consequence being a reduced number of options for the questionnaire delivery method, resulting in the decision to email a significantly sized cohort ( Figure 3-1).


Figure 3-1: Data Collection Outline

### 3.2 Questionnaire Survey

As Swan and Combs (1976) discussed there is little research into the area of customer expectations with what does exist being largely based on small cohort samples. Therefore, the starting point for the research was focussed on customer expectations whilst ensuring significant response rates from participants.

By looking at existing research into customer expectations and methods of large data collection, it was decided to focus on the aspect of the cost of the meal with distribution and responses to the questionnaire being in the thousands. A descriptive survey was designed based on the aims and objectives and information included in the Introduction and Literature Review Chapters. A number of email routes existed but for reasons of salience, which will be discussed further on, the distribution to subscribers of a specific website was chosen. The distribution avenue of the Delicious Magazine e-subscribers' service was selected as compared to other websites as they were proven, through previous mailings, to be able to deliver the numbers of responses required from their subscribers.

### 3.2.1 Distribution Method

Postal questionnaires, face-to-face questionnaires and telephone questionnaires would have meant that for each of these methods a significant number of people would need to be approached and being able to access specific contact details may have posed a problem (including data protection). Research has established that on-line surveys "demonstrated superiority over postal surveys in terms of response speed and cost efficiency" (Sheehan, 2001: 2; Mehta and Sivadas, 1995; Jones and Pitt, 1999; in Fricker, 2002). Additionally, if face-to face interviews were conducted there would potentially be a time issue and the majority of the respondents would be local to the
area, which could cause a distortion of the responses that would need to be factored into the analysis. Furthermore, the variable of the respondent's location could pose a problem as in the local area, restaurant choice is relatively limited and so this could impact on dining out habits and ultimately expectations. Another significant point with face-to-face questioning is the interaction factor, "the interviewer effect" with regard to how respondents' perceive the interviewer can affect responses (Denscombe, 2008: 184). It is recognised that all forms of questioning (even on-line questionnaires) will leave respondents with perceptions, which is why the use of the University logo was important to convey the purpose. It is nevertheless recognised that responses to on-line surveys are also recognised to be more candid than answers provided for mail, or phone surveys (Bachmann, Elfrink and Venzana, 1996).

### 3.2.2 Delicious Magazine Website

Delicious Magazine was chosen over other magazines and avenues of subscriber distribution for a number of reasons:

- Cost was a major consideration and whereas other costs came to approximately $£ 4,000$ for the creation and distribution processes (BBC Good Food Magazine) Delicious Magazine charged 8p plus VAT per email sent, resulting in a total cost of $£ 3,171.33$ (Appendix 2).
- The Delicious Magazine organisation designed the email which made the presentation fit with the magazines standard image which was important for consistency and to alleviate respondents concerns over unsolicited email.
- Timings for sending the email and questionnaire could be specified.
- The magazine was content to include the Plymouth University logo and information about research being undertaken at the University.
- There was good communication regarding the research and distribution design; the questionnaire was attached to the email via a link button and Delicious Magazine's marketing and technology departments understood how this would work.
- Other websites suggested 'pop ups' as the distribution method. This did not provide the uptake rate let alone response rate and in all cases cost more (GoodFood, 2008).
- The magazine (Delicious magazine) knew information regarding their subscribers which allowed for pre-questionnaire analysis of the cohort.
- A high possibility that all Delicious Magazine subscribers had an interest in food meant that they were likely to be a knowledgeable target group, as well as, having specific traits, which at a later stage during the analysis, could be accounted for.
- The style of Delicious Magazine is not of a recipe magazine, or associated with buying food, as per a supermarket linked food magazine. This meant the likelihood that the Delicious Magazine subscribers dined out, or had an interest in dining out, whereas as those buying supermarket magazines or recipe orientated magazines may be more likely to buy food to cook and eat in the home.

A survey of this design was appropriate for this research as it covered a number of aspects that would create desirable outcomes:

1] Delicious Magazine had a wide readership of 103,041 as of January to June 2008. The target market was well understood and defined as ABC1 women aged between 25
and 54. Additionally, it was known that the audience had a wide range of interests and obviously a keen awareness of food (Delicious Magazine, 2008).

2] Would generate variable data that could be analysed for relationship patterns.

3] Responses could be processed statistically.

A well-known weakness of internet surveys is that they are essentially providing a convenience sample. However, there are a number of positive factors that can be seen to balance any misgivings relating to the survey:

1] Delicious Magazine research has been able to conclude that their e-subscribers have an awareness of food (Delicious Magazine, 2008). Therefore, those who participated in the survey actually brought meaning to the study because they were likely to have understood the questions relating to dining out, as well as, being able to provide answers based on experience.

2] The survey structure provided large scale data gathering to ensure that outcomes could be generalised to be applicable across all dining out scenarios. The sample size offered scope for the research question to be covered adequately along with balance within the cohort responses. This enhances the representativeness of the sample and allows for confidence in making generalisations based upon the findings (Denscombe, 2007).

3] "Overall evidence suggests that the internet-user populations represent a vast and diverse section of the general population..." (Hewson, 2003: 26). Therefore, the survey only being available in an electronic format was not an obstruction due to the recognised widespread accessibility of internet technologies.

However, as with all surveys there has to be some form of caution exercised with regard to the extrapolation of data and as Meyer (2008) discusses the limitations of research should always be recognised and overgeneralisations avoided.

### 3.2.3 Sampling Strategy

As well as having an appropriate methodology in place, the sample of people who respond and provide the data also have an impact upon the quality of outcomes (Fowler, 1993). To ensure that quality responses were achieved the following four factors were considered:

1] The sample size required.

2] How the UK population would be represented by the sample.

3] Communication with the sample.

4] The plan for distribution.

Through analysis of existing research into customer expectations and similar on-line surveys it was possible to determine the numbers of participants that would be required to provide an appropriate response rate for this study.


The following table (Table 3-6) shows information that was taken into account regarding the use of email communication.

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Delicious Magazine had a distribution list of 34,471 ' e -subscribers'. It was not known how many of these e-subscribers read the emails that the magazine site sent to them, however, it was considered to be high as there was the option to unsubscribe at any time. Research completed (Table 3-5) into on-line questionnaire response rates appear to be at a $5.9 \%$ click-through rate on average. Therefore, with the distribution group being at 34,471 , approximately 2034 responses were predicted.

The list of Delicious Magazine's subscribers was unknown other than by quantity and all 34,471 were sent an email with the on-line survey accessible via a link in the email.

It was decided through analysis of previous emails sent to Delicious Magazine esubscribers that Thursday afternoon appeared to be the day that on average there was the highest level of immediate responses. All subscribers were emailed at the same time with the identical email. In purchasing access to the subscribers a number of other factors were also agreed to by the magazine: that no other emails would be sent by the magazine until at least a week after the email had been sent. Additionally, it was checked that no other emails including survey links had been sent or were due to be sent within a month either side of the email being sent. Other considerations were also made such as seasonal timings - the following month was not recommended for the email to be sent, due to Christmas approaching. The magazine often sends out newsletters and it was ensured that one had not recently been sent and was not due to be sent following the email.

The incentive of winning 1 of 10 books was offered to anyone who submitted the questionnaire. The book was Jamie's America by Jamie Oliver. Jamie Oliver's books have always been popular with those who are interested in food - Jamie Oliver's cookery books have made him one of Britain's biggest selling authors (Adams, 2009). Additionally, the plan was that a high profile name would also drive interest for recipients to read the initial email - many subscription emails are deleted before being read properly and so this was the main purpose of the incentive. Little research has been conducted into whether incentives improve response rates (Sheehan 2001), however, what has been identified is that the majority of email surveys provide no incentive other than having access to the results at a future date (Sheehan, 2001). With the increase of unsolicited mail and the threat of viruses, uptake of email surveys has reduced and therefore, it was planned that a combination of capturing interest (picture of Jamie Oliver), saliency for the topic, the recognised format of the Delicious Magazine
designed email and information linking Plymouth University with the survey would capture respondents' interest.

Seeking a large response rate does not necessarily concur with the theory that after a little over 380 responses the sample responses remain constant (Krejcie and Morgan, 1970: 608). If this were the case however, there would be less interest in sampling error and bodies, such as, The Office for National Statistics would be inclined to conduct far smaller studies than they currently do (see for example, Office for National Statistics, 2005c). Errors in studies often come about due to the gap between the responses from the study and the true value for the population that the study would be applicable to (Trochim, 2006). "The amount of variation can generally be reduced by increasing the size of the sample, and by improving the sample design" (Office for National Statistics, 2005c: 1). Increasing a samples size, which will lessen 'random error' and ensuring the study is free of errors, or influence will ensure that the study can be interpreted accurately and meaningfully for the wider group that the data are being applied to. Knowing how the sample may be biased allows for measurement against a wider group of people, this allows for the lessening of 'systematic error' (Office for National Statistics, 2005c: 1). In addition to trying to remove both random errors and systematic errors from the study, through statistical analysis, it is possible to look for any issues through measurements, such as, standard deviation.

If the survey did not have the aim of improving upon existing low cohort studies, then a lower response rate may fulfil the brief, however, a number of factors, as well as Aim 2, (Chapter 1) encouraged the requirement for a larger number of responses:

1] The number of variables to be generated by the responses

2] Ensuring the sample reflected many categories of the UK population, for example, age, gender, occupation and income.

3] Current information on the impact of expenditure on expectations unavailable to measure if a lower response rate would still provide an accurate reflection of opinions.

What was not overlooked at any stage in the design of the research and questionnaire, was trying to deliver high numbers from the survey and subsequently confusing quality with quantity (Fricker and Schonlau, 2002).

### 3.2.4 Sampling Frame and Response Encouragement

One of the main issues with any questionnaire distribution is the problems associated with trying to access a representative group of the population where everyone has an equal chance of being asked to partake in the study (Dillman and Bowker, 2001). In fact creating such a study is very unrealistic and so deciding who should be targeted needs to be considered carefully, especially as responses from a small number could prove to be conflicting with the responses of those who did not answer the questionnaire (Bean and Roszowski, 1995 in Sheehan, 2001). A sampling frame is required as the basis for sending out email questionnaires. However, a number of aspects were considered when looking to create an appropriate sampling frame. The main aspect was to ensure that the email recipients would show a saliency with the topic, therefore, this led to: a focus on groups interested in food, an up-to-date list being important (as permanency of contact is not as stable through emails as by post) (Denscombe, 2007) and finally knowing some information prior to conducting the research was important,
as this information would help to understand and examine the sampling bias during the data analysis stage.

Management of the questionnaire and a well-considered target group are some of the best ways to ensure interest and responses. Martin (1994) describes salience as the association of importance and or timeliness to a specific topic. Heberlein and Baumgartner (1978) and Bean and Rooszkowski (1995, in Sheehan, 2001) have suggested that salience has more influence on response rates than other factors that are often considered important, such as, questionnaire length. In order for there to be a salience with the questionnaire, a group of people had to be chosen who had an interest in the questionnaire topic. This is another reason that Delicious Magazine e-subscribers were chosen to be asked to complete the on-line questionnaire as, it was predicted, that they would attach some interest to the topic and in-turn this would help completion rates. Furthermore, added to the email was an extract of information highlighting that the research (the questionnaire) was for academic purposes. This again was in an attempt to provide the email recipients with a reason to respond. Ultimately, it was hoped that a recognised academic institution (Plymouth University) along with the proposed use of the data for academic purposes may improve uptake along with completion rates (Manfreda, Batageli and Vehovar, 2002 in Sheehan, 2001). Delicious Magazine also allowed for Plymouth University's logo to be displayed on both the email and questionnaire. Manfreda et al, (2002) identified how logos have been found to make the questionnaire more interesting and to motivate respondents into starting and completing the questions.

### 3.2.5 Questionnaire Design

The design of the questionnaire was completed using the questionnaire design programme Perseus ${ }^{6}$ and it was ensured that in the design of the questionnaire there was consistency, a theme (Plymouth University logo) and that it was a basic enough design so that the graphics did not slow up the loading of electronic pages - this has been known to increase rates of uncompleted surveys (Manfreda et al, 2002). Little research has been conducted regarding design format with regard to how the response is actually inputted (Sheehan, 2001), however, simplicity to aid speed and reduce complication and following a nearly all closed question design format, ready for statistical analysis, was the format reasoned as the most appropriate.

From an early stage it was identified that the method of analysis would be largely through the use of the Statistical Package for the Social Sciences (SPSS) programme. SPSS is among the most widely used computer programs for statistical analysis in social science. Subsequently, questions had to be designed to a specific format so that the data generated would be appropriate for analysis at a later stage.

The questions included within the final questionnaire (Appendix 1) were a combination of the data generated by the two pilot questionnaires (Appendix 3) as can be seen, for example, by questions $2,5 \mathrm{a}, 5 \mathrm{~b}$ and 5 c . Questions, such as 1,3 and 4 contained within the final questionnaire, were originally posed in the pilot questionnaires and were effective in generating data that was deemed to be beneficial to the study. Finally, there were standard socio-economic data gathering questions, such as age, and household

[^3]income that appear in both the pilot and final questionnaires. Generating variables that respondents' believed to be their expectations was an important aspect to the research and it was in contrast to previous studies where diners' inputs and actual attributes have not been taken into consideration with regard to the design of questionnaires. For example, June and Smith (1987) used fifty professionals to undertake the ranking of attributes set against pre-existing hypothetical contexts, and in Lewis' (1981) study only five variables, that had been pre-determined by the author, were addressed in the research for consideration by the research participants'.

The concluding questionnaire design appears more simplistic than the pilot studies and questionnaires from existing research, such as Cullen's (2004), or Parasuraman et al (1988) studies. However, the alteration of the design to the final presentation and the exclusion of certain questions from the pilot studies are related to the format required for on-line completion and this is detailed further in section 3.2.6.

The final questionnaire (Appendix 1) comprised of three sections of questions which each focussed on a different aspect of variables. Section one (questions 1-6) was a mix of short open, Likert scale and closed questions. The open questions were to determine patterns of behaviour when dining out, such as, frequency of dining out, influences of choice and cost per person. The closed and Likert scale questions' content were sourced from the pilot study and existing research in order to provide an accurate list of choices and variables likely to be thought about when dining outside the home.

The next section (questions 7-11) focussed on patterns of behaviour, these questions were included to understand if there was a link between lifestyle patterns, choices and levels of expectations. The second section was again a mix of short open, closed and another Likert scale question. The Likert scale question was included as it provided a
way to include questions that would verify answers to other questions as well as including personality trait insight questions that were taken from The Big-Five Trait Typology (John and Srivastava, 1999) so that the results could be benchmarked against established findings into personality. Other information for the second section was sourced from a mix of existing questionnaires and included questions about behaviours, such as, hobbies, newspaper preference and television viewing habits.

Finally, the last section (questions 12-18) were questions regarding personal information such as gender, income, location and so on. As well as again providing information to link lifestyle with expectations, it was planned for this section to also offer insight into the cohort and allow for analysis of the respondents as a whole against the rest of the UK population.

The final sections accuracy was measured against existing questionnaires and where additional details were required, such as, examples of occupation, UK Government statistics and UK Government population reports (Office for National Statistics, 2009 and Office for National Statistics, 2006) were sourced. This was to ensure that all questions required to build up a picture of demographic, had been included.

Lastly, the respondents' were asked if they wished to take part in the Jamie Oliver book prize draw and whether they would consider taking part in any further studies. A space for an email address and a tick box accompanied these questions respectively.

The following table (Table 3-7) shows the considerations that stemmed from the literature review that needed to be taken into account when designing the questions for the research in order to cover each aspect. The additional column indicates the resulting
responding question/s in the questionnaire (Appendix 1). This demonstrates how the contents of the Introduction Chapter and the Literature Review Chapter have informed the aims and objectives and subsequently the questionnaire contents. The outcome of collecting the data will be to further the process of achieving the aims and objectives and gain additional understanding of dining out customers and their expectations.

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### 3.2.6 Questionnaire Content

The overall style of the questions meant that all information could be entered into SPSS for analysis. Additionally, the design of the questionnaire included the most appropriate
style of questions for such research. John and Lee-Ross (1998) suggest that this type of questioning is the most common way to measure attitudes and expectations; closed questions are understood and answered quickly which means more questions can be included and the analysis of such questions is relatively straightforward, especially when a coding scheme is being used. Overall, as Oppenheim (1992) comments, closed questions have the advantage of being attitudinal, factual and reliable. Nevertheless, some open questions had to be posed throughout the questionnaire to find out specific details, although these were considered carefully at the design stage and space for inputting details was purposely limited in order to guide the respondents' length of answer.

The questionnaire was designed to be interactive and was of a multiple-page design (one question per page). It was important for the respondents not to see the questions as related entities, so as to provide genuine answers for each set of criteria. Additionally, when faced with one page of many questions respondents have been found to significantly increase the rate at which they pick and choose questions to answer (Manfreda et al, 2002). Although multiple-page questionnaires reduce correlations between answers (Reips, 2002, Couper et al 2000 in Manfreda 2002), as Dillman and Bowker (2001) indicated, when participants do not know how far they are from the end of the questionnaire the tendency can be to abandon the questionnaire part-way through. However, as certain design elements could be added to the questionnaire, it was decided to let the respondents know how far they were through the survey and to be able to go back as well as forwards. The decision was taken to only make one question compulsory (question 5), this meant that the questionnaire would not move to question 6 until 5 had been completed. Obviously, this meant that at any other point the
respondent could omit questions, but this was deemed better than the respondent closing down the questionnaire without the submission of any information.

In total the questionnaire took approximately 7 minutes to answer and in comparison to other recent Delicious Magazine on-line questionnaires, such as the 'Scrabble' and 'Marks and Spencer' questionnaires it was a relatively long questionnaire. However, 7 minutes or 18 questions is not extensive in contrast to data gathered from other research into on-line questionnaires (Sheehan, 2001) where some questionnaires had up to 94 questions. Furthermore, researchers are not agreed on whether length of questionnaire is a component for people not completing questionnaires (Bruvold and Comer, 1988; Mason et al, 1961; Herberlien and Baumgartner, 1978; Steele, Schwending and Kipatrick, 1992; Yammarino, Skinner and Childers, 1991). It is recognised that certain groups can be survey length sensitive, such as, business workers (Jobber and Saunders, 1993 in Sheehan, 2001) however, salience is thought to be the key factor in achieving higher response rates (Bean and Roszkowski, 1995).

### 3.3 Ethical Considerations

> "In the formulation, design, conduct and dissemination of social research the research manager will face ethical choices or dilemmas, which will need to be addressed and resolved".

Tarling (2006: 158)

As per all research conducted with support from Plymouth University, the University's ethical guidelines have to be adhered to and an application for ethical approval of research form submitted to the Faculty Research Ethical Approval Committee (FREAC) (Plymouth, 2010).

The application form outlines six areas for consideration: Informed consent, openness and honesty, right to withdraw, protection from harm, debriefing and confidentiality. Of these measures four were applicable to the study and procedures put in place to ensure that the respondents were treated with ethical consideration throughout the process.

1] Informed consent: the email sent to Delicious Magazine subscribers fully detailed the purpose of the questionnaire. Additionally, the questionnaire was only accessible via a link button, this ensured it was the respondents' choice to connect to the questionnaire.

2] Openness and honesty: All details of the research, including information about Plymouth University and the purpose of the research were included in the email.

3] Right to withdraw: At any point a respondent could close down the questionnaire and no information would be exchanged. There were no penalties for only answering and submitting part of the questionnaire, for example, everyone who submitted had an equal chance of winning one of the book prizes, even if they had not fully completed the questionnaire.

4] Confidentiality: Data will not be directly shared with any external bodies other than Plymouth University. Additionally, all responses were anonymous unless the respondent chose to detail their email address. Although this was used as the way to inform respondents if they had won a book, completing this section was not compulsory.

Additional to respondent considerations, ethics of the study data must also be considered. According to Tarling (2006: 161) "researchers have an ethical duty to
promote the public understanding of their discipline and the status and standing of their profession". In line with this, the methodology implemented has been carefully considered in order to provide the best interpretation of the data to answer the research questions, with objectiveness and impartiality a key focus throughout.

### 3.4 Chapter Summary

Understanding the theoretical background to the research has been a fundamental issue in relation to the aims, and objectives and the overall progression of the study. Through analysis of both research theories and aspects raised by the literature review, the direction of the study could be confirmed. Both secondary and primary data were important as the secondary data facilitated the structure and content of the large-scale on-line questionnaire.

The data collection has provided responses which reflect information required to fulfil the research openings posed by the Introduction Chapter. The collated data are analysed and discussed in the following chapters. Chapters 5, 6 and 7 explain and analyse the findings and Chapter 8 subsequently discusses the outcomes in relation to the established secondary data and finally the practical typology and theoretical model are introduced.

## 4 Discussion of Quantitative Data

The purpose of this chapter is to analyse and discuss the information obtained from the on-line questionnaire survey. In total 34,471 questionnaires were electronically sent to Delicious Magazine 'e-subscribers' and 2,226 completed responses (6.5\%) were returned. When the responses were completed they were automatically stored in an Excel spread sheet where they were collected in order of response. All responses were used except for six where no data was entered and obvious nonsensical data had been added for compulsory question 5 . Other than these responses, all other responses were analysed with any missing data being managed through the inputting process in SPSS.

Before statistical analysis can begin it is necessary to have an understanding and overview of the replies. This Chapter therefore identifies the responses that emerged, amalgamating to form the basis of insight into the cohort and initial findings of the research question. Within sections 4.1 to 4.4 of this chapter the answers have been discussed in the context of the questionnaire. At the start of each section the question and answer options have been detailed to set the scene for the commentary.

### 4.1 Cohort Synopsis

### 4.1.1 Gender <br> Q. Please indicate your gender

```
F
Male
```

Data received from 2,220 questionnaires showed that a significantly higher proportion of females than males responded with 1847 (83\%) being female and 373 (16.8\%) male. Although there is a clear gender bias, this is very much in-line with the selected cohort that were approached to answer the questionnaire.

### 4.1.2 Age Q. What is your age?



Ages of those who responded were between 18 and 84, a histogram from these data of ages from under 24-75 and over was developed (Figure 4-1).


Figure 4-1: Age Distribution of Questionnaire Respondents.

The dominant age groups were in the age categories of 25 to 54 representing $73.3 \%$ of all respondents with the mean age being 49 years. A comparison can be seen with regard to the age ranges of those who responded to the questionnaire and the UK population age statistics (Barnes, 2012) in Table 4-1. The main groups that could be seen to be underrepresented by the study are those under 24 and 75 and over. Nevertheless, this is exactly the target market that Delicious Magazine expects its subscribers to be in.

Figure (Text/Chart/Diagram/Image etc.) has been removed due to Copyright restrictions.

### 4.1.3 Household

Q. How many others (excluding yourself) are there living in your household?

Q. If there are others living in your household how many fall into the following age categories:
Under 18
19-40 $\square$
Above 65 $\square$

The data indicated that the age group 'under 18 ' are most likely to be living within a larger family set-up (Table 4-2).

Figure (Text/Chart/Diagram/Image etc.) has been removed due to Copyright restrictions.

### 4.1.4 Occupation

Q. Which best describes the occupation of the main wage earner in your household?

O Traditional occupation (e.g. laborer, cleaner, farm worker)
Processor or machine operative (e.g. manufacturing, assembly)
Sales or customer service (e.g. retail assistant, call centre) Individual services (e.g. hairdresser, travel agent, nursery nurse) Skilled trade (e.g. mechanic, carpenter, electrician, plumber)Administrative or secretarial (e.g. office worker, civil service )
C Semi-professional or technical (e.g. technicians, nursing)
C Professional (e.g. teacher, lawyer, clergy)
C Manager or senior official (e.g. company manager, officers in armed forces/police) $C$ Retired or other (e.g. student, housewife)

A synopsis of the occupation categories that respondents aligned with is presented below (see also Table 4-4):

- The most frequently chosen occupation category was 'professional' and described by the examples of teacher, lawyer and so on. The total of this category made-up $24 \%$ of the responses.
- The next category was that of 'manager or senior official' $(22.5 \%)$ such as, a company manager and officers in the forces.
- The next category with $15.9 \%$ was the category of choice for the retired, or
students and those with job anomalies that do not fit into other categories. It is possible to tally up this category up with ages - Table 4-3 shows that the ages of 55 and over are the most frequent in this category and that of all the occupations this category is most popular for these age groups.
- The people in the next highest job categories (12.5\%) relate to administrative, or secretarial work, for example, a secretary, or someone in the civil service.
- The next two categories are semi-professional and skilled trade, so technicians, electricians etc. ( $8.8 \%$ and $8 \%$ respectively).
- Sales and customer service (3.3\%), traditional work, such as, cleaning, or farm work (2.5\%), individual services like hairdressing, or nursery work (1.5\%) and finally processing work, for example, manufacturing, or assembly ( $0.9 \%$ ) were the least chosen types of work to best describe the occupation of the main wage earner.

A summary table to show occupation by age category is presented below:

| Age |  | $\begin{aligned} & \overline{0} \\ & 0 \\ & 0 . \\ & 0 . \\ & 0 . \end{aligned}$ | $\frac{\sqrt[0]{d}}{\sqrt[\sim]{n}}$ |  | $\begin{aligned} & \stackrel{\rightharpoonup}{0} \\ & \frac{\stackrel{\rightharpoonup}{\bar{z}}}{n} \end{aligned}$ | 荐 |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 24 | 1 | 1 | 3 | 1 | 4 | 17 | 6 | 17 | 10 | 13 | 73 |
| 25-34 | 13 | 4 | 20 | 10 | 37 | 92 | 62 | 181 | 92 | 23 | 534 |
| 35-44 | 15 | 7 | 26 | 12 | 51 | 63 | 58 | 129 | 184 | 21 | 566 |
| 45-54 | 19 | 4 | 11 | 6 | 58 | 59 | 45 | 127 | 151 | 52 | 532 |
| 55-64 | 4 | 4 | 12 | 4 | 26 | 44 | 20 | 67 | 56 | 140 | 377 |
| 65-74 | 2 | 1 | 0 | 1 | 2 | 4 | 1 | 9 | 1 | 79 | 100 |
| Over 75 | 2 | 0 | 1 | 0 | 1 | 0 | 3 | 4 | 7 | 26 | 44 |
| Total | 56 | 21 | 73 | 34 | 179 | 279 | 195 | 534 | 501 | 354 |  |

Table 4-3: Age and Occupation of Respondents

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those at the opposite end of the occupation categories. This, however, is in-line with the expected demographics of Delicious Magazine e-subscribers. Within the study $16 \%$ of people who responded classed themselves as 'other' so this could be retired, an unusual occupation and so on. This is a reasonably reflective number as in the UK $18 \%$ of the population are retired (Barnes, 2012).

### 4.1.5 Household Income

Q. Which of the following best describes your annual household income?

Less than $£ 12,999$
£13,000-£24,999
£25,000-£34,999

- $£ 35,000-£ 45,999$
£46,000-£56,999
£57,000-£67,999
£68,000-£78,999
O
£79,000-£90,999
©
Over £91,000

Within the survey there were questions that enquired about the respondent's occupation as well as household income. Clearly, household income is not just reflective of the respondent's salary. However, the purpose of understanding household income is because it will impact upon everyone in the household and knowing this information may provide evidence for everyday patterns and behaviours.

With regard to income, the most frequently chosen categories were $£ 35,000$ to $£ 45,999$ - the option chosen by $15.9 \%$ of respondents and $£ 25,000-£ 34,000$ chosen by $15.5 \%$ of respondents. $39.2 \%$ of those answering the questionnaire live in households with an income above $£ 46,000$ these being $£ 46,000-£ 56,999$ ( $12.4 \%$ ), $£ 57,000-£ 67,999$ ( $8.8 \%$ ), £68,000 to 78,999 (6.3\%), £79,000 to£90,999 (5.1\%) and over £91,000 (6.6\%). Below the most frequent percentages were $£ 13,000-£ 24,999$ (13.7\%) and less than $£ 12,999$ (5.7\%).

A histogram of household income generated by the questionnaire responses (in GBP) is presented below:


Table 4-5: Annual Household Income

Once again, comparing the data to that of the UK Government figures (Annual Survey of Hours and Earnings, 2009) it can be seen that the median salary for a UK worker is $£ 23,472$ per annum. However, $71 \%$ of the questionnaire respondents lived in a household where the income was above this amount. Only $10 \%$ of the UK population earn more than $£ 46,608$ per year, however, by comparison $39 \%$ of those who took part in the survey lived in a household where this amount was the near to minimum income. Finally, $10 \%$ of the UK population earn less than $£ 13,008$ per year, whereas, only $5 \%$ of those questioned for the survey fell into this income bracket.

Looking at the 9 income categories, they can be split down by reasonably even percentage quartiles.

- The smallest group at $20.1 \%$ is those with a household income of $£ 68,000$ and over.
- Towards the other end of the income categories is the second smallest group (21.6\%) who earn $£ 24,999$ or less.
- The next group ( $23.5 \%$ ) have a household income between $£ 46,000$ and £67,999
- The household incomes that accounts for most responses (34.8\%) is between $£ 25,000$ and $£ 45,999$.
4.1.6 Location
Q. Where do you live?

C East of EnglandEast Midlands
0 IrelandNorth East

North West
Scotland
O South East
C London
C South West
C Wales
C West Midlands
C Yorkshire and The Humber
O Outside UK

The questionnaire was a national survey and all regions as set out by the UK Government (Direct.gov, 2011) are represented by those who partook in the questionnaire as Table 4-6 indicates.

4.1.7 Area
Q. How many of the following food establishments are within a 10 minute walk from your home?


The data collected also indicates the type of area that the respondents live in, for example, urban, or suburban. The results show that the majority of people do not live within a 10 minute walk of any or many restaurants, $38 \%$ do not have any restaurants within this distance and $39.6 \%$ have $1-4$ within a 10 minute walk. For there to be 5 , or more restaurants within a 10 minute walk the respondents would need to live near a town: $11.3 \%$ are within 10 minutes' walk of 5-9 restaurants and $9.3 \%$ are within a 10 minute walk to over 10 restaurants.

16 people did not answer how many pubs were within a 10 minute walk, however, the majority of respondents (64.4\%) do live within a 10 minute walk of 1-4 pubs. $15.4 \%$ live this distance to $5-9$ pubs and $6.8 \%$ of respondents live within a 10 minute walk of over 10 pubs, it is highly probable that such a number of pubs would only exist within a town centre location. The remainder, $12.7 \%$ do not live within a 10 minute walk of any pubs.

Finally, $38.7 \%$ of respondents said that they did not live near to a fast food outlet but a similar number ( $39.7 \%$ ) said that they were within a 10 minute walk of between 1 and 4. Again, due to the market required for fast food outlets, it is highly likely that 5, or more fast food outlets would only occur in a town setting. $12.4 \%$ who answered said that they lived within a 10 minute walk of $5-9$ and $7.1 \%$ said that they lived within this distance of more than 10 fast food outlets.

This question helps to understand location and accessibility as both of which may have an impact upon dining out behaviours. To have over 10 of any of the categories would mean that it would be very likely that the respondent lived within a town, or city location. Subsequently, it could be assumed that those who do not live within a 10 minute walk of a pub are likely to live in more of a rural location.

- The largest group of respondents (39.6\%) live within a 10 minute walk of 1-4 restaurants. However, this is closely followed at $38 \%$ of respondents having no restaurants within this distance.
- A significant number of respondents (64.4\%) live a 10 minute walk away from 1 to 4 pubs.
- There is a similar picture for fast food as there was with restaurants with $39.7 \%$ of respondents living a 10 minute walk to 1-4 fast-food outlets but again very close to this figure were the number of people (38.7\%) who did not live with a 10 minute walk of any such outlets.


### 4.2 Dining Out Behaviours

### 4.2. $\quad$ Frequency of Eating out

Q. Approximately how many times in the last 6 months have you eaten at each of the following:

| Pub restaurant | $\square$ |
| :--- | ---: |
| Café | $\square$ |
| Full service restaurant | $\square$ |

Not eaten at any of the above

Although some respondents did not eat at all of the food outlet options, 2173 responses did include at least 1 dining out visit to a food outlet type, with the mean number of visits being at around 7 times and standard deviation being of an acceptable level (Table 4-7) this meant that the respondents were able to recount a dining out experience within the last 6 months upon which to base their replies.

| Establishment | $\mathbf{N}$ | Minimum | Maximum | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Pub 6 months | 2173 | 0 | 140 | 7.08 | 8.486 |
| Cafe 6 months | 2173 | 0 | 180 | 6.84 | 10.677 |
| Restaurant 6 months | 2173 | 0 | 60 | 6.60 | 8.109 |

Table 4-7: Number of Visits to Pubs, Cafes and Restaurants

Out of a total of 2220 respondents only $2.1 \%$ or 47 persons had not eaten at a pub restaurant, a café, or a full service restaurant in the past 6 months (Figure 7). As it is highly unlikely that this group of people had never eaten out their responses to the rest of the questionnaire were still treated as valid.


Figure 4-2: Number of Respondents Not Eaten Out Within Last 6 Months
4.2.2 Cost of Dining Out
Q. What cost per person do you think represents.....

An inexpensive meal $£$
A mid-priced meal $£$
An expensive meal $£$

Cost of dining out responses ranged from $£ 2$ to $£ 50$ for an inexpensive meal, $£ 3-£ 80$ for a mid-priced meal and $£ 7$ to $£ 250$ for an expensive meal. The standard deviation for an inexpensive meal was 5.13 , 10 for a mid-priced meal and 23 for an expensive meal. The averages from all of the responses appear to be very realistic for an outside of the home dining experience (Table 4-8):

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```
4.2.3 Dining Away from Home
Q. Which FOUR aspects from the following list are most important to you when eating
away from the home?
            Experience nice tableware
\Gamma
    Meal fits into budget
\Gamma ~ M e a l ~ f i t s ~ i n t o ~ t i m e ~ l i m i t a t i o n s
Reason linked with convenience
    To celebrate a special occasion
To experience a different environment
\Gamma
    To experience new foods
\square \text { To have a meal different to home cooked food}
\Gamma
    To have a meal similar to home cooked food
\Gamma
    To provide positive memories
\Gamma
    The social aspect
\Gamma
    Other important factors not listed
```

Dining out establishments can use tableware to convey an image and to highlight the food through presentation, however, it would appear that very few customers view this as an important factor. Potentially, this may be a feature that is part of the overall dining experience as opposed to a separate element. Additionally, if a dining out establishment has tableware that is practical or basic, then customers logically would not see as a special feature to consider.

The question of budget produced some surprising results. $47 \%$ said that budget was not an important factor when dining away from the home, with the other $53 \%$ thinking it was. This near half split could be possibly due to a number of reasons, firstly, if people are dining away from the home out of necessity, such as, lunch breaks and so on then this may be an accepted level of expenditure. Additionally, if people are dining out for pleasure then perhaps they do not worry about the cost as they will visit establishments that fit within their budget. Nevertheless, with the current economic climate nearly half of the respondents saying that they are not concerned with budget was unpredicted.

Only $11.5 \%$ of respondents said that time was a consideration when eating away from the home. Maybe time is important if other family members, like children, are being considered - the family is an aspect that will be looked at in more depth further on in this study. Overall, the majority of people $88.5 \%$ when dining out, do not consider time limitations to be an important factor.

Although, cooking skills of the UK population are declining (Fort, 2003) it would not appear that convenience is a considerable factor for eating out (86.4\%). This could be due to either those who responded to the survey having an interest in food and therefore, not having an issue with cooking at home, or being able to source other fast options of
cooking within the home, such as, ready meals. Additionally, eating out could be seen as an 'occasion' rather than a replacement for cooking at home. However, dining out is not just reserved for special occasions, with half of the respondents answering that a special occasion is not necessary important to them when eating out.

The restaurant environment is considered to be related to aspects, such as, intangible factors of ambience and so on and over recent years has risen in level of importance for restaurateurs (Autun et al, 2010; Finkelstein, 1989). However, the environment is not a particularly big issue for respondents with only $32 \%$ saying that it was an important consideration. Potentially, this is due to a number of factors; firstly, if respondents were dining out due to necessity, for example, a break from shopping, or a lunch break, then the environment might not be a consideration. Or, perhaps the majority think if they did not like the look or feel of a dining out establishment they would not eat there and so the environment would not be an issue. Furthermore, the environment can often be judged, or is known, prior to dining at an establishment, therefore, if the environment did not suit, perhaps the restaurant would not be chosen in the first place.

43\% of respondents' think trying new food is important when dining out. However, that leaves $57 \%$ who do not. Perhaps the split shows that some people are adventurous and seek new experiences, in this case, foods, whereas others prefer what they are familiar with.
$66 \%$ of respondents were looking for a different meal to that which they would have at home. However, $34 \%$ do not think that a different meal from those consumed in the home is important. Possibly this is due to the fact that some meals could be similar to what is often had in the home and so respondents consider other factors to be more
important? Or, maybe the respondents enjoy food and like cooking and eating at home? However, whether food is the same, or different to that cooked at home, the social factor of dining out is important to $66.4 \%$ of respondents.

Despite $34 \%$ of respondents thinking that having a meal similar to that cooked in the home is not an issue, it would appear that only $3.5 \%$ seek the experience of having a meal the same as their usual home cooked food. Therefore, having a meal different to home cooked food is actually the most important factor when dining away from the home.

Dining out is now considered a very 'regular' activity which could be why only $26.8 \%$ think that the reason of creating a positive memory is important. It could also be that a positive memory is tied into special occasions and as these would not be that frequent, this could account for fewer people thinking this reason was important.

Although the majority of responses to 'other reasons that are important when eating outside the home' could have fitted into the listed categories, many respondents still listed them under the 'other' category. The main issues listed that were different were to have a break from cooking, children being able to experience eating out, good food and wine and service of staff.

Looking at the question overall, the four most important aspects when eating away from the home fall into three clear groups.

- Firstly, the social aspect ( $66.4 \%$ ), different to home cooked food ( $66 \%$ ), experiencing new food $(57.1 \%)$, celebrating a special occasion (54.5\%) and budget (53\%).
- The next group includes the experience of a different environment (32.9\%) and to provide positive memories (26.85).
- The final group of responses is obviously considered the least important factors and the response rates clearly show this - reasons linked with convenience (13.6\%), time limitations ( $11.5 \%$ ), other ( $8.4 \%$ ), tableware ( $6.4 \%$ ) and to have a meal similar to home cooked food (3.5\%).

There are 5 clear important factors (see Table 4-9) to customers when eating away from the home:

- The social aspect ( $66.4 \%$ )
- A meal different to that of home cooked food (66\%)
- Experiencing new food (57.1\%)
- Celebrating a special occasion (54.5\%)
- Budget (53\%)

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### 4.2.4 First Time Restaurant Visits

Q. What factors encourage you to visit a restaurant for the first time?


When questionnaire respondents were asked to disclose what makes them visit a restaurant for the first time, less than $1 \%$ chose not to answer the question. After analysis of the qualitative responses, five clear categories are evidently in customers' minds when choosing a restaurant for the first time:

1] Reviews/word of mouth/reputation
2] Look/ambience
3] Offers/promotions
4] The menu
5] Something new/different/originality

### 4.3 Customer Expectations when Dining Out

With regard to what equates to inexpensive, mid-priced and expensive dining, the costs are being linked to the categories of expected amounts, as determined by the respondents, that can be seen in Table $4-8$ in section 4.2.2. Within section 4.3 the questions asked have options that are on a scale. For ease of interpretation the following information regarding the responses will be used in the discussion:

| Question Response Number | Referred to in the discussion as... |
| :---: | :--- |
| 1 | Not Important |
| 2 | Less Important |
| 3 | Neutral |
| 4 | Important |
| 5 | Extremely Important |

Table 4-10: Response Interpretation Information

### 4.3.1 Inexpensive Dining

Q. How do your expectations alter regarding the following aspects when eating at an inexpensive restaurant?

Not Important Extremely Important

Good service by well-trained/experienced staff
Good atmosphere and décor
Cost
Good quality food
Provision made for children, friends/groups
The location of the restaurant is convenient
Cleanliness of restaurant and staff
Menu provides a good range of choices
Good quality beverages
You are recognised or made to feel special/valued
Reliability/consistency of good food and experience
Food not standardised
The restaurant has a good reputation


Looking at customer expectations relating to dining out, in what the respondent considered to be an inexpensive establishment, the service was rated most highly (34.7\%) at the neutral point (3) and then $27 \%$ said it was important (4) and $20.1 \%$ considered the service to be extremely important on their list of expectations. The remaining $16.6 \%$ who answered the question thought service was at an expectation level of less important, or not important.

The most frequent level of expected atmosphere was neutral (3) by a reasonable amount ( $41.7 \%$ ) with the next figure being $25.2 \%$ for it being an important consideration but, unlike with service, the next most popular option was a lower expectation of less important at $15.5 \%$. The next category ( $13.6 \%$ ) considered atmosphere to be extremely important and then finally $2.4 \%$ of those asked did not think atmosphere was important at all.

When eating at an inexpensive restaurant it appears cost is extremely important and the responses to this question (with only $1.9 \%$ not answering) rated cost as an extremely important expectation at $28.9 \%$ and then worked backwards from extremely important to not important: $26.5 \%, 25 \%, 13.6 \%$ and $4.3 \%$ respectively.

Despite the question relating to inexpensive restaurants, food quality is still very important to customers. Only $9.3 \%$ rated food quality as less important, or unimportant and the rest of respondents said food quality was neutral (34.7\%), important (30.9\%), or extremely important (23\%).

The level of customer concern for restaurants making provision for children and groups at inexpensive restaurants was most popular at the neutral level (35.2\%) and the
next highest category above neutral at (important) $22.5 \%$. However, after this the next most popular opinion drops to less important at $16.8 \%$ and then there is a reasonable even split between the two remaining categories with $12.1 \%$ of respondents rating children and groups as extremely important and $11.2 \%$ rating their expectation as not important.

Where the location of the restaurant is does not appear to be an issue as the most frequent response for the location of an inexpensive restaurant was neutral ( $36.8 \%$ ). This was closely followed by it being important at $30.7 \%$ and extremely important was next at $16.8 \%$. Potentially, this could be convenience related as only $14 \%$ said location was not important to them.

Cleanliness is an important issue even when customers consider dining at an inexpensive restaurant and the response rates to this question run in order from extremely important to not important $(45.3 \%, 29.1 \%, 19.5 \%, 3.6 \%$ and $0.8 \%$ respectively). This is only one of two questions in the section, where the most important category is the most popular, the other being cost.

The menu providing a good range of choices at an inexpensive restaurant is considered to be neutral by the majority of respondents (37.7\%). However, when combined more than the neutral percentage think that menu choice is more crucial (44.9\%) with $28.7 \%$ choosing the important category and $16.2 \%$ opting for the extremely important category. Only $15.5 \%$ think that menu choice is less important.

Although, beverages may not always be considered central next to food, in fact this expectation received a neutral response as the most highly chosen option (41\%). This is
higher than the neutral category for food itself, although there was a higher percentage overall for rating of food than for beverages. Nevertheless, $80.6 \%$ still consider good quality beverages as neutral, important, or extremely important ( $41 \%, 26.8 \%$ and $12.8 \%$ respectively).

Being recognised and made to feel special does not appear to be overly important, as although the highest category was neutral at $33.8 \%$, there is a near equal percentage either side of this, so $22.4 \%$ rate this aspect as important, or extremely important but $21.7 \%$ think it is less important than neutral. With $7.1 \%$ considering the aspect to be not important and $13.1 \%$ rating being recognised as extremely important there almost seems to be no trend to what respondents think.

The reliability/consistency of good food and experience does rate highly with respondents. The most popular categories are those above neutral (34.3\%) with $86.2 \%$ in total, thinking that this aspect is neutral, or above. Only $11.6 \%$ think that reliability is lower than neutral.

Although many inexpensive restaurants might be considered to be chains, or high street style restaurants with a consistent format, it would appear that even in this category of restaurants, the food not being standardised is a consideration for customers with $73.3 \%$ thinking that this aspect is neutral, or higher ( $40.8 \%, 22.1 \%$ and $11.9 \%$ respectively). $18.6 \%$ thought food being standardised was less important than neutral and only $6 \%$ considered it as not important.

Only $9.3 \%$ of respondents' rate reputation being less than neutral as acceptable, this is one of the lowest amounts for the two categories below neutral for all of the questions
in the section. $34.3 \%$ of respondents' think reputation is neutral but this is closely followed at $32.6 \%$ for important and $22 \%$ for extremely important. From this it can be seen that reputation is certainly a consideration for customers.

Taking an overview of expectations of the inexpensive dining out category; firstly, there were only three sections to question 5a that were rated either extremely important, or important (as seen in Table 4-11). These are: cost (extremely important), cleanliness of staff and the restaurant (extremely important) and reliability/consistency of good food and experience (important). However, looking at all of the sections together and seeing which had the highest score brings about another set of key aspects for customers and these are: 1] cleanliness of restaurant and staff (45.3\%), 2] good atmosphere and décor $(41.7 \%), 3]$ good quality beverages (41\%) and 4] food not being standardised (39.9\%).

Figure (Text/Chart/Diagram/Image etc.) has been removed due to Copyright restrictions.

Overall the following are the most important expectations that need to be met by an inexpensive restaurant when a customer is dining out:

- Cleanliness of restaurant and staff
- Cost
- Good atmosphere and décor
- Good quality beverages
- Food not being standardised


### 4.3.2 Mid-priced Dining

Q. How do your expectations alter regarding the following aspects when eating at a midpriced restaurant?

Good service by well-trained/experienced staff
Good atmosphere and décor
Cost
Good quality food
Provision made for children, friends/groups
The location of the restaurant is convenient
Cleanliness of restaurant and staff

Menu provides a good range of choices
Good quality beverages
You are recognised or made to feel special/valued
Reliability/consistency of good food and experience
Food not standardised
The restaurant has a good reputation

Not important Extremely important

| 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |

Within mid-priced restaurants service was rated as important (53.6\%), or extremely important (27.3\%) by the majority of respondents. Only $17.5 \%$ of people thought that their expectations of service within a mid-priced restaurant was neutral, or below ( $16.3 \%, 1 \%$ and $0.2 \%$ respectively).

Although the atmosphere rating most popular with respondents was important (57.3\%) there were still $22.2 \%$ who thought that atmosphere was only neutral. $17.3 \%$ did consider atmosphere to be extremely important but the total for neutral and below is $23.7 \%$. So there is a majority of responses falling under the most chosen option of important, than above.

In a mid-priced restaurant the cost of the meal is considered important (45.3\%). Perhaps because there is a large section of the restaurant market that would fall into a mid-priced category of restaurants and so when deciding where to dine customers consider the price of the meal. $32.3 \%$ are neutral as to what their expectations are concerning cost, although only $2.6 \%$ think of it as less important, or not important at all. This then leaves $18 \%$ who think the cost of dining out in a mid-priced restaurant is extremely important.

The provision being made for children and friends/groups in a mid-priced restaurant has not changed from the response for that of inexpensive restaurants. The expectation is neutral for such provision within a mid-priced restaurant - the same as it was for an inexpensive restaurant ( $33.6 \%$ and $35.2 \%$ respectively). Slightly more think that it is important than did previously ( $29.4 \%$ compared with $22.5 \%$ ) but for the extremely important, less important and not important categories the expectation outcomes are very similar $11.9 \%, 13.5 \%$ and $9.2 \%$ respectively for a mid-priced restaurant as compared to $12.1 \%, 16.8 \%$ and $11.2 \%$ for an inexpensive restaurant. It can be identified that the neutral is the most popular response to this question. However, it also highlights consistency/consideration in the responses as children and/or friends/groups are unlikely to change in importance to a respondent and so, although other aspects might change, it is encouraging to see consistency for this variable.

As per the previous statement on expectation for customers considering mid-priced restaurants, the responses have changed very little too for a convenient location as compared to the responses for inexpensive restaurants. The neutral option is still the most agreed with, at $39.7 \%$ (compared to $36.8 \%$ ), important is $32.1 \%$ with extremely important being $12.1 \%$ which is similar to the totals for these ratings for an inexpensive restaurant ( $47.5 \%$ ). Only $14.2 \%$ think the convenience of the location is less important, or not important ( $14 \%$ previously). Once again, however, this shows consistency which indicates that the majority of people are answering genuinely, hence the similarity between the same variable but different priced restaurants.

Although cleanliness has more respondents indicate that their expectations are higher for the cleanliness of a mid-priced restaurant than an inexpensive restaurant the pattern is nevertheless still exactly the same. Cleanliness is rated as being extremely important by $50.5 \%$ and $37.2 \%$ consider it to be important then on a decreasing scale of $9.6 \%$, $0.7 \%$ and $0.1 \%$ from neutral through to not important.

Menu choice has increased in both numbers and overall rating from the inexpensive restaurant expectations. Choice is perhaps an area that is slightly overlooked but it has over $79 \%$ of respondents agreeing that menu choice is either important ( $54.7 \%$ ), or extremely important ( $24.6 \%$ ). $17.1 \%$ think that their expectation is neutral and $1.6 \%$ of respondents are not particularly concerned as they have chosen the less important, or not important categories.

Either side of the important category for customer expectations of beverage quality are two similar sized groups of responses. The total of those who consider beverages to be important is $50 \%$ and extremely important is $19 \%$ and neutral $24.8 \%$. This is a very
similar response pattern to when the question was asked relating to inexpensive restaurants. However, this time the category has moved up from neutral and so it can be seen that the increased price of a restaurant does increase respondents' expectations of the quality of drinks available.

Respondents indicated that recognition, or being made to feel special/valued when visiting a mid-priced restaurant becomes more important. Perhaps this could be because such aspects are tied in with service, or as the style of restaurant changes in peoples' minds the experience aspect is different, or maybe if more money is being spent customers start to require some acknowledgement for their investment. 42.3\% agreed that being recognised, or being made to feel special was important to them and $18 \%$ considered this extremely important. $29.7 \%$, which is $4 \%$ less than when the question was asked concerning inexpensive restaurants, think their expectations are neutral. The movement of numbers from the previous question has occurred due to the lack of responses for less important and not important, just $7.5 \%$ as compared with $28.8 \%$ previously.
$83.7 \%$ of respondents think that the reliability/consistency of good food and experience is important (53.2\%), or extremely important (30.5\%). $12.8 \%$ considered this aspect to be neutral with $1 \%$ thinking it was less important. Out of all respondents none chose not important to describe their expectations of consistency. Only questions relating to cleanliness and menu choice, in the mid-priced category, have had so many respondents' answer that the aspect is either important, or extremely important.

As with opinions of non-standardisation in inexpensive restaurants the numbers of respondents who have expectations that are high, with regard to food not being
standardised, is the most numerous of all of the levels of expectation, $64.3 \%$ of respondents said that in a mid-priced restaurant meeting their expectations was either important (45.8\%), or extremely important (18.5\%). $28.9 \%$ thought that their expectation was neutral, which is $11 \%$ less than for inexpensive restaurants. Previously, $24.6 \%$ did not think non-standardisation was important, whereas for a mid-priced restaurant the number has dropped to just $4.4 \%$. Perhaps this is an indicator as to how respondents' ideas of styles of restaurants alter within different price brackets.

If the respondents are paying more it would appear that they are looking for somewhere that has a good reputation, this aspect becomes more important the more money being spent. Formerly, when considering inexpensive restaurants the majority of respondents considered their expectation level of this aspect to be neutral, however, for mid-priced restaurants it has moved to important and whereas previously only $54.6 \%$ thought reputation was either important, or extremely important, for mid-priced restaurants these two are the main categories and account for $78.8 \%$ of the responses, with just $17.9 \%$ for neutral and $1.3 \%$ and $0.3 \%$ for less important and not important (see Table 4-12).

All of the categories that had high percentages for inexpensive restaurants have either risen in terms of importance, or stayed the same. If they have moved from, for example, neutral to important it would appear that this is in-line with the increase in cost and the rise in expectations. Where categories have stayed the same it is either because the aspect is important whatever the cost of the meal, for example, cleanliness of the restaurant, or it is more of a fixed variable, such as, the consideration of children and friends/groups. When these consistent results have occurred it has allowed for the checking of patterns to ensure that the majority have been responding genuinely and conscientiously. Where it has been possible to check for these patterns it can be
identified that there are similarities between the responses for an inexpensive restaurant as for a mid-priced restaurant.

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Overall the following are the most important expectations that need to be met by a midpriced restaurant when a customer is dining out:

- Good atmosphere and décor
- Good service by well-trained/experienced staff
- Menu provides a good range of choices
- Reliability/consistency of good food and experience
- The restaurant having a good reputation
4.3.3 Expensive Dining
Q. How do your expectations alter regarding the following aspects when eating at an expensive restaurant?

Good service by well-trained/experienced staff
Good atmosphere and décor
Cost
Good quality food
Provision made for children, friends/groups
The location of the restaurant is convenient
Cleanliness of restaurant and staff
Menu provides a good range of choices
Good quality beverages
You are recognised or made to feel special/valued
Reliability/consistency of good food and experience
Food not standardised
The restaurant has a good reputation


Service expectations of customers are very high for expensive restaurants with $96.2 \%$ of respondents' choosing extremely important (88.1\%), or important (8.1\%) as their levels of expectation. Possibly this is because there is an additional element being paid for in an expensive restaurant, such as, staff knowledge, 'theatre' elements and consideration being shown towards customers.

The expectation of atmosphere and décor has increased for each type of priced restaurant - starting at neutral for an inexpensive restaurant and finally extremely important for an expensive restaurant. This category has a significantly higher number of responses than the next category down, which is important, ( $78.8 \%$ and $15.4 \%$ respectively). Only $4.2 \%$ of respondents' considered atmosphere to be neutral, or less.

Cost for mid-priced restaurants was only rated as important, however, for an inexpensive restaurant it is was extremely important and for expensive restaurants it has become an important factor. This could possibly be respondents' considering a restaurant that is expensive carefully before deciding whether to eat there. There is a steady decline from extremely important down to not important (52.2\%, 22.6\%, 16.5\%, $5.2 \%$ and $1.8 \%$ respectively). When the pattern of responses appears logical, as it does for the responses to cost, once again this would indicate that people's responses are considered, rather than just random.

There was a significant increase in numbers and ratings of importance as to how respondents' expectations changed with regard to provisions being made for children and groups. The increase can be seen in a movement from respondents rating this aspect in the main as neutral, or important for inexpensive and mid-priced restaurants to the higher end of being important in expensive restaurants (33.7\%, 20.4\%, 21.4\%, $11.5 \%$ and $10.6 \%$ extremely important to not important). There may always be a group of people who consider this aspect to be not so important mainly due to the fact that not everyone will have children and the number of times that some people may choose to go out in a group could be limited.

The responses relating to the location of the restaurant has previously been mainly rated as being neutral in respect of customers' expectations. However, responses for the importance of location for an expensive restaurant are not clearly defined. The main group of $33.1 \%$ do consider a convenient location to be important, however, $27.3 \%$ remain neutral and although $17.3 \%$ consider this aspect as important, $20.6 \%$ do not, as they have chosen the less important and not important options (13.8\% and 6.8\%
respectively). Potentially, this could indicate that some people want a convenient location if they are paying a lot for a meal, maybe if drinking with the meal is being considered for example, whereas others could in fact be happy to travel in order to reach an expensive restaurant that they wish to eat in. Some respondents may think the experience of particular restaurant is worth investing the time and travel into.

Again, as for previous categories of restaurant, very few customers are willing to accept anything less than a clean restaurant and staff. With $87.2 \%$ rating this as extremely important and $8.1 \%$ indicating it still as an important issue to respondents in an expensive restaurant as it was for mid-priced and inexpensive restaurants. There could also be a rise in expectations because, for previous categories, as long as a restaurant was hygienically clean maybe that was all that concerned the cohort. However, with expensive restaurants potentially there has to be an even greater emphasis of care taken, such as, polished glassware, pressed tablecloths, smart uniforms and so on.

The more expensive the restaurant the more choice respondents expect to have, subsequently rating this aspect as extremely important (70.5\%). The most populated categories have increased a level each time the restaurant scenario has become more costly. It is not possible to tell what respondents have interpreted choice as, but possibly it is to do with style, as well as range, as opposed to just quantity of items on the menu.

The importance of beverage quality has been very surprising in previous restaurant categories. Respondents considering expensive restaurants do not move away from this trend with the majority concluding that beverage quality is either extremely important, or important with $69.5 \%$ and $20.4 \%$ of respondents' choosing these categories
respectively.

The way that the staff treat customers has increased in respondents expectation levels as the cost of the restaurant categories has increased. As previously mentioned this could be due to wanting a form of recognition from staff as the amount being spent increases. Potentially, the more a customer pays the better they expect to be treated, perhaps there is a link between affordability and status which respondents would like acknowledged. Hence, subsequently rating this aspect as extremely important $66.5 \%$ and important $19.5 \%$ and only $12.3 \%$ rating this as neutral, or below.

The reliability/consistency of good food and experience has been significant for all previous categories of restaurant, being important both times. It is no surprise, therefore, that it should increase to the next level when customers are paying more. This time there is a less of a spread of respondents, with $85.2 \%$ indicating that they expect reliability and consistency when visiting an expensive restaurant. $10.1 \%$ of respondents' rated the issue as important. With a mere $3.21 \%$ of respondents saying that their expectations of consistency and reliability in an expensive restaurant were neutral, or below.

An expensive restaurant is very unlikely to have a fixed menu and a la carte is far more expected, or at the very least a menu that is regularly changed and plays to the chefs' strengths. Therefore, food not being standardised is rated as extremely important to respondents and this is possibly a reflection of the style of food that customers expect depending upon the amount they are paying for their meal. $71.7 \%$ and $16.6 \%$ of respondents' considered this aspect to be either extremely important, or important respectively. There were only $9.7 \%$ combined who considered that a restaurant serving
non-standardised food was neutral, or less important.

A good reputation is what traditionally expensive restaurants want to achieve and maintain. It is therefore, not a surprise that respondents' expectations have increased the more expensive the restaurant category becomes. Initially, for an inexpensive restaurant the main level of expectation was neutral, this then moved to important and for expensive restaurants opinion has changed again, with respondents thinking an expensive restaurants reputation is extremely important (76.4\%). Even at the important level of expectation there are still $16.3 \%$ of respondents with only $5.4 \%$ indicating that their expectations on reputation are neutral, or less.

What is evident from the responses to questions relating to dining out at expensive restaurants is that the percentages reclassify into higher levels of expectations in nearly all incidences. Subsequently, there is less of an equal split between categories and certainly less respondents considering neutral, or below as a reflection of their levels of expectations (see Table 4-13).

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Overall, the following are the most important expectations that need to be met by an expensive restaurant when a customer is dining out:

- Good quality food
- Good service by well-trained/experienced staff
- Cleanliness of the restaurant and staff
- Reliability/consistency of good food and experience.

Although there have been studies into expectation and customer satisfaction before, there has not been any research looking at how expectations can change and how the levels of importance move in accordance with the cost of a restaurant meal.

From the questions investigating expectations of dining out, it can clearly be seen that expectations do change depending upon the amount that the meal is costing - there is not a consistent set of requirements from the customer. It can be identified from the
data, that there is more closeness in customer opinion between inexpensive and midpriced restaurants than there is between mid-priced and expensive restaurants. In some cases between inexpensive and mid-priced the numbers for different levels of expectation for various aspects are similar, or although a movement upwards in expectations may occur, the pattern remains the same. However, expensive restaurants appear to be seen by customers in a totally different way, with responses changing pattern so that the majority of respondents consider their expectations to be extremely important, or important for the different aspects posed. This complete change in levels of expectation may be why disappointment can occur quickly in expensive restaurants and customers are very unforgiving, often not returning to the restaurant if any problems arise (Soloman, 2009).

Recommendations from the responses to questions regarding expectations in relation to meal cost have been made for each category of restaurant. However, looking at eating in a restaurant from a customer perspective, there would appear to be some clear aspects that need to be met in order to meet customer expectations, whatever the cost bracket of the meal:

- Good atmosphere and décor
- Cleanliness of the restaurant and staff
- Good service by well-trained/experienced staff
- Reliability/consistency of good food and experience.
- Menu providing a good range of choices


### 4.4 Cohort Personalities

### 4.4.1 Personality and Insights

Q. Please indicate how you feel about the following statements
I carry out tasks efficiently
Eating out with my family is important to me
I would class myself as a 'foodie'
I am trusting
I am interested in food related magazines and/or food
programmes on television
I visit food festivals and food events
I value artistic and creative experiences

The next section of questions in the questionnaire were designed to find out further information about the respondent, as well as, looking at some personality traits. These forms of questions are also often included within questionnaires to check for respondent reliability.
'Conscientiousness' considers responsibility, order and dependability in a person so was included to see if the respondents had these traits which could then indicate as to whether their answers were likely to be reliable (John and Srivastava, 1999). $90 \%$ of the respondents' said that they strongly agreed, or agreed that they carried out tasks efficiently.

To try to have some insight into personalities the next question asked how trusting the respondent was. This eludes to how agreeable a person is, the more trusting the more likely they are to be good natured and cooperative (John and Srivastava, 1999). 72.4\% answered that they strongly agreed, or agreed that they were trusting and $19.2 \%$ said that they were neutral.

Although to ask about artistic experiences may seem unusual, those who agree that they value such experiences are said to show openness to experiences in general (John and Srivastava, 1999). In total $66.3 \%$ said that they strongly agreed, or agreed that they valued artistic experiences and $26.1 \%$ who were neutral on the question. This only left $7.7 \%$ who either disagreed, or did not answer the question (1.2\%).

To find out if children are a big factor when dining out the question of how important is dining out with the family was posed. It does not ask about children specifically as the whole family set-up is important, so potentially answers to this question could also include considerations for groups of people dining out. $81 \%$ said that dining out with the family was important to them (agree and strongly agree) and $15.1 \%$ were neutral and the remainder did not agree with the statement.

The three statements that were food related (shown below):

- Eating out with my family is important to me
- I would class myself as a 'foodie'
- I visit food festivals and food events
were included to firstly, find out levels of food interest from the cohort who had received the email due to being signed up to food magazine related website. Then, secondly, to check for consistency of responses, $89 \%$ agreed, or strongly agreed, that they had food interests, such as, reading food related magazines, or watching food programmes and $7.9 \%$ were neutral on this matter. $71.1 \%$ said that they strongly agreed, or agreed that they would class themselves as a 'foodie' with $21 \%$ being neutral and $62 \%$ said that they strongly agreed, or agreed that they visited food festivals and events with $22.4 \%$ being neutral.

Overall, this question was designed to find out some more information, such as, family importance, which may otherwise prove difficult to ask, along with personality traits that could infer if the group were going to be 'suitable' questionnaire respondents. Another area of investigation, was how interested in different aspects of food, other than eating, people were. By asking three food questions consistency of responses could also be considered. Overall, it was found that: With regard to the food related questions consistency was good with 3 questions all being answered mainly with a strongly agree, or agree response (Table 4-14).

|  |  |  |  |  | Strongly <br> Disagree | Missing |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Tasks efficiently | $39.0 \%$ | $51.0 \%$ | $8.1 \%$ | $0.6 \%$ | $0.4 \%$ | $0.9 \%$ |
| Family important | $35.0 \%$ | $46.0 \%$ | $15.1 \%$ | $2.2 \%$ | $0.9 \%$ | $0.8 \%$ |
| Foodie | $32.5 \%$ | $38.6 \%$ | $21.0 \%$ | $6.2 \%$ | $0.9 \%$ | $0.8 \%$ |
| Trusting | $26.8 \%$ | $45.6 \%$ | $19.2 \%$ | $6.5 \%$ | $0.9 \%$ | $1.1 \%$ |
| Food interests | $54.3 \%$ | $34.7 \%$ | $7.9 \%$ | $1.6 \%$ | $0.9 \%$ | $0.7 \%$ |
| Visit food events | $28.0 \%$ | $34.6 \%$ | $22.4 \%$ | $11.1 \%$ | $2.7 \%$ | $1.3 \%$ |
| Artistic experiences | $24.5 \%$ | $41.8 \%$ | $26.1 \%$ | $5.3 \%$ | $1.2 \%$ |  |

Table 4-14: Measures of Personality Characteristics

The majority of people will indulge their food interest in other ways other than just eating out.

- Family is very significant to the majority of respondents (81\%) so it is highly likely that family aspects, perhaps children, or groups will impact on dining out experiences in some way.
- The personality trait questions indicate that the majority of respondents would consider themselves to be able to carry out tasks efficiently, be trusting and to value artistic experiences. Looking into these traits further suggests that in the main the respondents were a conscientious, good natured group of people who show openness to new experiences (John and Srivastava, 1999).
4.4.2 Newspapers
Q. What newspapers do you regularly read? (Please tick all that apply)


The type of newspaper that a person reads is insightful with regard to looking at certain demographic traits. Newspaper readership can indicate income, education level as well as a person's political view point. The two most popular newspapers were local papers (36.2\%) and the Daily Mail (24.6\%). The next set of most likely newspapers read by the respondents' were The Sunday Times (19.5\%) The Telegraph (16.8\%), The Times (16.4\%), The Mail on Sunday (15.9) as well as the option of not reading a paper (17.3\%). A slight error occurred with the listing of the papers in the questionnaire as the Guardian and Observer papers were missed off the list and this has accounted for the high number of people (18.6\%) choosing the 'other' option and specifying a paper. This option also revealed a number of other newspapers that were not mainstream - as well as, people specifying the name of their local paper, also listed was the Metro, interest papers, such as Farmers Weekly, international papers, for example the New York Times, free papers and most surprisingly listed were internet news sites. The last category of papers is made up of the least popular papers and includes The Sun (8.7\%), the Independent (6.4\%) and the Mirror (4.8\%) (Table 4-15).

|  | \% Uptake |
| :--- | :---: |
| Daily Mail | $24.6 \%$ |
| The Independent | $6.4 \%$ |
| Mail on Sunday | $15.9 \%$ |
| The Mirror | $4.8 \%$ |
| Sunday Times | $19.5 \%$ |
| The Sun | $8.7 \%$ |
| The Telegraph | $16.8 \%$ |
| The Times | $16.4 \%$ |
| Local | $36.2 \%$ |
| No paper | $17.3 \%$ |
| Other paper | $18.6 \%$ |

Table 4-15: Newspaper Choices

The Daily Mail and Mail on Sunday are papers that position themselves aimed at the 'middle market' and with strong conservative values. These papers are considered to be tabloid style and the Daily Mail is the second highest selling newspaper in the UK after The Sun newspaper (Jonathan, 2008). The Times and The Sunday Times are papers that are seen to be 'serious' informative publications with high standards of journalism. The Daily Telegraph and Sunday Telegraph are two of the few 'centre-right' broadsheet papers. The Telegraph is the highest selling British 'quality' paper and the papers take a politically conservative viewpoint, The Telegraph has close links with the Conservative Party (Jonathan, 2008).
4.4.3 Spare Time Activities
Q. Which activities do you enjoy taking part in? (Please tick all that apply)


Twenty-nine options were offered for respondents to indicate what they did in their spare time. These were listed in alphabetical order in the questionnaire but have subsequently been grouped into the categories of food, lifestyle, hobbies, physical activities and other for the purpose of analysis.

Firstly, it was clear to see that the respondents were interested in food in one way or another with $86.6 \%$, the highest response to any activity, enjoying eating out in their spare time and cooking was very close to this at $85.9 \%$. Although not selected as much, the options of gourmet food (53.8\%) and wine (45.7\%) still gained some of the highest responses of all the activities.

Looking at lifestyle, reading at $73.6 \%$ proved to be the most popular option followed by
travel (63.7\%), cultural events (39\%), visiting Trust Properties (27.8\%), wildlife and environmental issues ( $26.1 \%$ ) and camping ( $25 \%$ ). Also in this section, but not quite as popular, were dieting (14.1\%), community work (11.3\%) and cruise holidays (8.4\%).

In the hobbies group of activities the most popular activity was gardening (43.9\%), followed by computers (37.4\%), crafts (30.7\%), photography (26.6\%), DIY (18.1\%) and lastly science and technology with $11.1 \%$.

Finally, the last category of options is those relating to physical activities, using the gym was the most popular option (20\%) followed by cycling at $17 \%$. However, the other options were all rated relatively low - running ( $10 \%$ ), 'other' sports ( $9.2 \%$ ), team sports (8.3\%), horse riding (6.7\%), golf (6.5\%), fishing (4.8\%) and lastly sailing with $4 \%$.

The option to choose and specify another, non-listed activity had a $10.5 \%$ response rate, often included in the specified activities were activities which were a variation of already listed categories. However, other very popular activities, not mentioned previously, were church activities, water sports, winter sports, theatre, cinema, walking, flower arranging, dogs/pets, children, music and lifestyle activities, such as, yoga and Pilates. There were also some more unusual activities, such as, volunteering for a heritage railway, cloud appreciation and mushrooming.

Finding out what activities people enjoy taking part in (Table 4-16) provides an insight into many aspects, such as, lifestyle, age, gender and so on. It also allows for crosschecking of information and consistency between questions answered, for example, cross referencing between if people considered themselves to enjoy food activities and then if they actually chose the food options as the activities that they take part in.

|  | Yes | No |  | Yes | No |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Cultural events | $39.3 \%$ | $60.7 \%$ | Golf | $6.5 \%$ | $93.5 \%$ |
| Camping | $25.0 \%$ | $75.0 \%$ | Gourmet food | $53.8 \%$ | $46.2 \%$ |
| Community work | $11.3 \%$ | $88.7 \%$ | Gym | $20.8 \%$ | $79.2 \%$ |
| Cooking | $85.9 \%$ | $14.1 \%$ | Horse riding | $6.7 \%$ | $93.3 \%$ |
| Computer/games | $37.4 \%$ | $62.6 \%$ | Photography | $26.6 \%$ | $73.4 \%$ |
| Crafts | $30.7 \%$ | $69.3 \%$ | Reading | $73.6 \%$ | $26.4 \%$ |
| Cruise hols | $8.4 \%$ | $91.6 \%$ | Running | $10.6 \%$ | $89.4 \%$ |
| Cycling | $17.0 \%$ | $83.0 \%$ | Sailing | $4.0 \%$ | $96.0 \%$ |
| Dieting | $14.1 \%$ | $85.9 \%$ | Science/technology | $11.1 \%$ | $88.9 \%$ |
| Diy | $18.1 \%$ | $81.9 \%$ | Sports team | $8.3 \%$ | $91.7 \%$ |
| Eating out | $86.6 \%$ | $13.4 \%$ | Sports other | $9.2 \%$ | $90.8 \%$ |
| Travel | $63.7 \%$ | $36.3 \%$ | Nat trust properties | $27.8 \%$ | $72.2 \%$ |
| Fishing | $4.8 \%$ | $95.2 \%$ | Wildlife/environment | $26.1 \%$ | $73.9 \%$ |
| Gardening | $43.9 \%$ | $56.1 \%$ |  |  |  |

Table 4-16: Activities and Pastimes

- The most popular activities by far are eating out ( $86.6 \%$ ), cooking ( $85.9 \%$ ), reading (73.6) and travel (63.7\%).
- The least popular category of activities was those that were physical activities, such as, running (10.6\%).


### 4.4.4 Television Viewing

Q. Please indicate how many hours a week on average you spend watching television?

Number of hours: $\square$

The average number of hours spent watching television per week by the respondents was 15.5. The standard deviation is quite high (10.1) as the responses were anywhere from never watching television to 80 hours per week (Table 4-17). However, around $50 \%$ of questionnaire respondents actually only watch 2 hours or less of television per
day and then the next $25 \%$ do not watch that much more, at just 2-3 hours per day. The age group watching the most television is that of 55-64 year olds and the least is the 3544 year category.

| Age Group | Under 24 | 25-34 | $\mathbf{3 5 - 4 4}$ | $\mathbf{4 5 - 5 4}$ | $\mathbf{5 5 - 6 4}$ | $\mathbf{6 5 - 7 4}$ | over 75 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TV Hours |  |  |  |  |  |  |  |
| Under 7 hours | $4.9 \%$ | $26.7 \%$ | $30.7 \%$ | $22.0 \%$ | $10.9 \%$ | $3.3 \%$ | $1.3 \%$ |
| $\mathbf{8 - 1 4}$ hours | $3.4 \%$ | $27.2 \%$ | $27.0 \%$ | $22.7 \%$ | $14.8 \%$ | $2.7 \%$ | $2.1 \%$ |
| $\mathbf{1 5}$ - 21 hours | $2.2 \%$ | $22.6 \%$ | $24.3 \%$ | $26.3 \%$ | $18.3 \%$ | $4.0 \%$ | $2.2 \%$ |
| $\mathbf{2 2}$ - 31 hours | $2.1 \%$ | $18.3 \%$ | $18.3 \%$ | $24.3 \%$ | $24.3 \%$ | $10.6 \%$ | $2.1 \%$ |
| $\mathbf{3 2}$ and above hours | $5.0 \%$ | $15.8 \%$ | $20.0 \%$ | $23.3 \%$ | $26.7 \%$ | $7.5 \%$ | $1.7 \%$ |

Table 4-17: Age and Television Watching Hours Per Week

### 4.4.5 Further participation

Q. If you are interested in this research and are willing to participate in any further studies please tick this box
I would like to be considered for further studies

The question was asked if questionnaire respondents would take part in further research and it was found that the majority would, with the most likely group being males in the 45-54 age group, closely followed by females aged between 35 and 44 .

|  |  |  | N | + | $\ddagger$ ¢ |  | + | t | ic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | Participate <br> Further | No | 3.8\% | 28.2\% | 23.5\% | 22.5\% | 16.0\% | 3.4\% | 2.8\% |
|  |  | Yes | 3.5\% | 24.3\% | 27.2\% | 24.0\% | 15.9\% | 3.9\% | 1.2\% |
| Male | Participate <br> Further | No | 3.0\% | 17.8\% | 23.0\% | 23.0\% | 20.7\% | 10.4\% | 2.2\% |
|  |  | Yes | .8\% | 13.9\% | 25.2\% | 27.7\% | 22.7\% | 7.6\% | 2.1\% |

Table 4-18: Further Participation Interest

### 4.5 Income Impacts Analysis

To be a customer costs money and therefore the income variable is incredibly important to the study. Income is considered one of the most important socio-economic characteristics within the study and how this influences other factors within customers' lives has been analysed to be able to gain insight into any variations of consumer behaviour.

As expectations in relation to meal cost is a major area for consideration within the study, income, which could contribute to affordability and influence expectations relating to cost, is an important area to analyse. The following section details where income appeared to have an impact upon the responses. Although United Kingdom HM Revenue and Customs (Directgov, 2012) define income through tax bands (Table 4-19). In comparison, for the purposes of this study, it is the data that has been generated through the questionnaire responses that forms a framework for the income brackets (Table 4-20). It is also worth noting that the income for the study has been gathered through household income as opposed to individual income.

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### 4.5.1 Visits to Food Establishments.

As dining out has a cost attached it is logical to assess the correlation between visit frequency and income brackets. The results indicated that mid-earners ate out in cafes the least, whereas, low and higher earners ate in cafes more in comparison. The pub environment was very mixed with regard to visits by income group, however, higher earners visited more than the lower earners. Restaurant visit numbers are definitely related to salary. People earning less, make fewer visits, whereas those who earn towards the higher end of the salary scales dine out much more frequently.

### 4.5.2 Income and Cost of Meal Expectations.

All participants were asked to indicate what they considered to be an expected amount to pay when considering inexpensive, mid-priced and expensive meals. From this data it was possible to create a high, medium and low cost group for each meal category. There was a correlation between income and cost expected to pay for each meal type. Consistently lower earners expected to pay less, mid earners expected to pay a mean amount and higher earners showed that their expectations of meal cost were always in the highest bracket.

### 4.5.3 Reasons to Dine Away from the Home linked to Income

Not all variables related to dining away from the home proved to be significant when looking at income. However, 'budget', 'new food', 'same as home' and the 'social aspect' all showed that there was a significant difference in behaviours between income groups. For those earning $£ 57,000$ or more a year as a household, budget was overall rated low, which is in comparison to $£ 24,999$ or less earners, who rated budget as a high
consideration. All income brackets from $£ 46,000$ and upwards considered 'new food' to be a high priority when dining away from the home. However, the income group of $£ 13,000-£ 24,999$ thought this only to be a low priority. There was a significant difference between the highest and lowest income groups with regard to the importance of the social side of dining out. Those earning $£ 91,000$ or more considered it to be a very important aspect which was an opposite opinion to those who earned $£ 24,999$ or less.

### 4.5.4 Hobbies and Income

Twenty-nine activities were offered as options for participants to indicate their activities and pastimes. Some of these activities have proved to show a significant difference in participation levels between the different income groups. Cultural and art events, and cooking scored low for those with a household income of $£ 12,000$ or less whereas, computer games were of higher importance to those in lower income categories. Eating out showed a trend where there was a pattern between income and the importance of eating out. The increase in importance of eating out was consistent with the increase in salary until the very highest salary bracket of $£ 91,000+$, at which point, the importance of this activity became lower. Following a similar pattern were the categories of wines and gourmet food, these were important to all those earning middle incomes to higher incomes. Perhaps ironically, dieting also followed the same trend as wine and gourmet food. Crafts were most important to those in the middle income brackets and sports including, the gym, running, team sports, tennis, golf, sailing and cycling were important to the middle income and higher income earners. Travel also showed a significant income link where the importance went from low to high in line with income.

### 4.5.5 Newspapers Read Compared with Income

Although many newspapers have a mixed readership, some papers showed significant variance between the reader and their income group. The Mirror's readership mainly came from $£ 34,999$ or less salary bracket with its popularity peaking with those in the $£ 12,000$ or less salary range. The Sunday Times was mixed but showed high readership in the income categories of $£ 57,000$ and above. The Times was very highly rated by those earning $£ 91,000$ and over, had mixed readership for middle earners and a low readership in the $£ 24,999$ category and below. The Sun was mixed but showed a high readership in income groups earning $£ 34,999$ or less and finally the Telegraph was mixed but had a very low readership with those earning $£ 24,999$ or less.

### 4.5.6 Number of Pubs, Cafes and Restaurants within a 10 Minute Walk of Home.

Only one of the groups proved to have a significant outcome when numbers of food outlets and income was assessed. The only category that showed significance between distance from home to eating establishments, was the income category of those earning $£ 91,000$ and above, who had a propensity to live closer to more restaurants than any other group.

### 4.5.7 Income and TV Hours watched.

There was a very simple significant outcome to the combination of TV hours and income variables. That is, the more being earned, the less the television is watched.

### 4.5.8 Dining Away from Home

Questions were asked regarding the influence of tableware, budget, time, convenience, occasion, environment, new food, having different food to home, same food as home, memories, social and other factors as the reason for dining outside the home. Although it has been possible to create frequencies from the data, the groups of people that these variables apply to are not consistent.

### 4.6 Summary and Research Direction

What can be seen from the analysis work of the quantitative data collected is an overview of patterns and trends created by 2,220 responses to the survey distributed through the Delicious Magazine website. The following provides a concise synopsis of some of the central findings from the data generated.

- The cohort that participated in the questionnaire demonstrated characteristics that were expected from Delicious Magazine e-subscribers in terms of sociodemographics.
- The average number of times a respondent has eaten outside the home within the six months prior to the questionnaire was 21 times.
- Only $2.4 \%$ of the cohort had not dined out during the six months before they answered the questionnaire.
- $£ 10.63, £ 21.63$ and $£ 42.62$ were the costs determined for an inexpensive, midpriced and expensive meal respectively.
- The social aspect and experiencing something different are the most important factors when deciding to dine out.
- Information provided by others, or a resource, are key drivers for encouraging a first visit to a restaurant.
- Eating out, cooking and reading proved to be the activities that the cohort enjoyed and participated in the most.
- Expectations that an inexpensive restaurants customers consider to be significant considerations: Cleanliness, cost, atmosphere, beverages and non-standardised food.
- Expectations that a mid-priced restaurants customers consider to be significant considerations: Atmosphere, service, menu choice, reliability and reputation.
- Expectations that an expensive restaurants customers consider to be significant considerations: Food, service, cleanliness and reliability.

Currently, the data are being seen as one group that can be looked at by specific variables, for example, gender, salary, dining out frequency. The data are not however providing insights into customer groups that are designated through similarities, such as, combinations of expectations. This is the subject of discussion in the following chapter, Analysis of Quantitative Data - Statistical Analysis, and it is the outcomes of Chapter 5 that will differentiate the analysis work form what has been undertaken in previous studies. Through statistical analysis, groups (factor groups) of customers can be created that combine together in relation to variables, but which may not at first seem obvious. This analysis will categorise the dining out public, who initially may not appear alike members of groups, but who in fact display close expectations and behaviour traits when dining out.

## 5 Analysis of Quantitative Data - Statistical Analysis

The overarching purpose of this chapter is to establish and demonstrate relationships from the resultant survey data. The data were organised so that expectation related responses were initially analysed separately through factor analysis, and the socioeconomic responses analysed by administering T-tests, correlation and ANOVA tests to the data. The outcomes from the tests have then been combined in order to generate the foundation for the subsequent development of a typology.

### 5.1 Chi-square Tests

Chi-square tests are non-parametric (they do not make assumptions about underlying population distribution) (Pallant, 2007). The test is used to understand the association between two categorical variables. The output is generated by comparing the values being measured against what would be expected if there was no association. The use of chi-square tests was restricted due to the limited nature of the tests. However, chisquare tests were implemented initially for the purposes of assessing the data and providing further information about the cohort. The chi-square tests took place before any factor analysis was undertaken and were then superseded by ANOVA, T-Test and correlation variable test outputs.

### 5.2 Factor Analysis

A set of variables ${ }^{7}$ were repeated three times within the questionnaire (Appendix 1) to establish respondents' ratings of critical factors when dining at inexpensive, mid-priced

[^4]and expensive restaurants. The variables listed in the questionnaire can be seen in Table $5-1$ and were rated by respondents as being 1 (not important) to 5 (extremely important) with regard to their perceived importance.

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### 5.2.1 Correlated Relationships between Variables

Through factor analysis it is possible to split the variables into factor groups that share patterns of correlation. "Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables" (Henriett, 2012). This is the beginning of the process to bring together common variables (of those asked about in the questionnaire) and which start to demonstrate patterns of expectations from dining out customers.

Table 5-2, Table 5-4 and Table 5-6 show the output from the initial factor analysis on the variables at inexpensive, mid-priced and expensive locations respectively. They further demonstrate how, after rotation and examining the Eigenvalue, the variables in each table split into 2 factor groups. Table 5-3, Table 5-5 and Table 5-7 display the variables aligning with each factor groups. The relevant variables have been emboldened to indicate how they have been distributed between the two factor groups for each of the cost categories. The sections following on from the next six tables discuss the process of defining and concluding the factor groups.

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### 5.3 Factor Analysis Process

The method used for the rotation process (the foundation of factor group creation) was 'Varimax' which allowed for the factor group variables to maintain independence. Extraction was tried at both the levels of 2 and 3 but beyond 2 many of the variables did not load onto any of the factors (number of groups able to be formed). Additionally, looking at the 'Eigenvalue', that is, the variances of the factor, to determine factor groups, it was clear from the scree plots, that there were two factor groups (see Figures 5-1, 5-2 and 5-3). Scree plots highlight the number of groups through the distinct shapes related. All of the scree plots show a clear change in direction from a point on the graph, which indicates two different groups within each category. Total variance was also measured for acceptability and the factor groups after rotation were grouped based on being above .44 which is the number that is considered salient (Comery, 1973 in Miller, Acton, Fullerton and Maltby, 2002). The higher the loading of the variable above this point, the more vital within the factor they are.

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Although there are relationships between the factors within each group it is not possible to determine levels of opinions for the different aspects within the groups, nor is it possible to suggest why one person may be more inclined to rate an aspect more highly than another.

The data collected can be manipulated (recoded in SPSS) in various ways to create different sets of raw data, for example, using ordinal data displayed as 1-5 or low to high and so on. However, it was decided to use the data in its original form so that accurate comparative factor groups could be made. Additionally, there is the option to choose the number of rotations (groups) and it was possible to break up the variables into up to 4 factor groups, however, a more accurate outcome is created when a variable loads highly onto one factor and low on the others. It was found that beyond two groups that the variables either did not load onto any factors, or began to fit more than 1 factor which again does not lead to good factor groupings. Table 5-3, Table 5-5 and Table 5-7 show the interpretation of the contents of the factor groups by placing the variables in rank order according to the corresponding component number and aligning them with the appropriate factor group. Although variables below 0.5 are not generally
included in the factor group, the ranking provides an interpretation of the order in which respondents rated the variables. However, it is necessary to note, that the variables within the different factor groups could contain responses from the same respondent. Therefore, although an order can be presented from the figures, a percentage of respondents to each factor cannot. Each of the factor groups encompass variables that the factoring process has aligned. The factor groups therefore propose what variables restaurant customers would combine based on importance. For each of the three restaurant cost categories, two factor groups have been created, with six being produced in total.

### 5.4 Reliability of Groups Used for Factor Analysis

Factor analysis provided a means by which it was possible to group customer expectations based on visiting differently priced food outlets. It was important to ensure that the group of factors were measuring consistently, for example, all responses were positive, or changed into the same format, before being tested. Additionally, research factors can often be brought together with a predetermined outcome and may not actually be relevant to each other. Furthermore, internal reliability allows for reassurance that the re-administration of the questions to the same respondents' would elicit the same responses (Griffin, 2010).

Cronbach's alpha test (Janssens, Wijnen, De Pelsmacker and Van Kenhove, 2008) measures the reliability of factors that are grouped together in the construction of a scale response question. Using Cronbach's alpha test (Jassens et al, 2008) it is possible to produce and subsequently measure the alpha number which indicates the internal consistency of the factors. A high alpha number, such as those found for the inexpensive (.900), mid-priced (.902) and expensive (.849) sets of data, allows for
interpretation of the correlation between factors. This means that respondents who tended to select high scores for one item also tended to select high scores for the others and the reverse of low scores for one and low for another is also true. Conversely, with a low alpha output it would not be possible to distinguish such patterns.

Looking at the Corrected Item-Total Correlation (CITC) column in Table 5-8, Table 5-9 and Table 5-10, each variable has a CITC score and this number is the correlation indicator between the variables. The higher the number the stronger the positive correlation is between the combined scores of the variables. Subsequently, this indicates the factor group's internal consistency. If the correlation is weak, that is, a low number of .30 or below is produced (de Vaus, 2004) then the variable should be removed. All variables have internal consistency with a high CITC number (Table 41, Table 42 and Table 43), this would indicate that the variables being rated by the questionnaire participants work well as a group and are reliable.

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### 5.4.1 Linear Regression

Regression analysis is used in order to determine 'causality' between an explained variable and explanatory variables (Janssens, Wijnen, De Pelsmacker and Van Kenhove, 2008). The variables used were the open data question of the representative cost per person for an inexpensive meal, mid-priced meal and an expensive meal (Q. 5) (Appendix 1) along with the ratings of factors (Q. 6) (Appendix 1) for each of the meal costs. The R Square numbers generated are low and insignificant, indicating that opinions of what costs represent different meal cost brackets do not reflect levels of expectations. Due to the nature of the linear regression test (Janssens et al, 2008) the lack of significance may be due to the combination of cardinal and ordinal data.

The following tables (Table 5-11, Table 5-12 and Table 5-13) have been generated to demonstrate what variables sit within each of the factor groups, along with their factor number and extraction numbers. Extraction numbers indicate the proportion of each variable's variance that can be explained by the retained factors. Variables with high values are well represented in the common factor space, while variables with low values are not well represented. Analysing the extraction number leads to understanding the 'communality' of the variables, that is, the proportion of each variables variance but which should not exceed 1. (UCLA Academic Technology Services, 2011). As can be seen from Table 5-11, Table 5-12 and Table 5-13 there are no numbers generated for the communality that exceed the value of 1 .

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Six factor groups have been recognised - two per cost group, however, these groups are still constrained by the original questionnaire questions of inexpensive, mid-priced and expensive dining out scenarios and as such, the factor groups have been created within these parameters. From the factor group outputs it has been evident that there is a consistent group emerging that shares the variables of 'children' and 'location'. To reduce the number of factor groups and create overriding groups for all of the categories each of the data sets have been collated into one factor analysis (Table 5-14).

In line with Costello and Osborne's (2005) recommendations to create "solid factors" (2005: 5) any variables that factored alone were removed and according to Costello and Osborne (2005) any factors below .5 should be removed and groups ideally made up of 5 or more variables. However, as Janssens et al (2008) highlight the assigning of variables to factors is subjective, so a number of factors were removed, namely: cost (inexpensive), location (inexpensive), non-standardized (mid), beverages (mid), recognition (mid), location (expensive), cost (expensive) and recognition (expensive) on the basis that they made very small, or individual factors. On re-running the factor analysis four very strong groups emerged with all variables being over, or extremely
close to .5 and no 'crossloading', that is, where the variable loads at .32 or higher on two or more factors (Costello and Osborne, 2005), this can be seen in Table 5-14.

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The combination of these data provides factor groups for all restaurant meal cost brackets and this can be seen in the combination of data for the fourth factor group as a factor from each cost category is included. However, it occurred that three of the four
factor groups are made up of variables that are specific to the meal cost bracket, that is, inexpensive, mid-priced and expensive.

The information from the four new overarching factor groups: FG1, FG2, FG3 and FG4 can be combined with the outputs from further statistical tests on the socio-economic data collected. These combined will form the basis of the development of the typology that will consider customer dining out expectations based on meal cost. The following sections will begin the process of the statistical analysis of the socio-economic data.

### 5.5.1 Factor Analysis Route

Factor analysis was the analysis method chosen above other applicable tests for a number of reasons relating to both the study itself and previous research. Principally, when considering the factor groups in Table 5-14, these have been created through the analysis of the three sets of variables (39 variables in total) associated to questions 5a, 5 b and 5 c in the questionnaire (Appendix 1). Although it may have been possible to apply other analysis techniques, such as, clustering to 13 variables, once the variable groups were amalgamated into one large group, the most appropriate method to create new groups, which are the result of reducing a large set of variables to a smaller number of dimensions and components, is factor analysis (Anglim, 2007). Furthermore, this analysis method is commonly used when developing questionnaires to understand the relationship between the items in the questionnaire and underlying dimensions (Anglim, 2007). This consideration has future implications because when planning further research routes for this study, it is likely that the factor groups will be contained within additional questionnaires. An example of the importance of considering reliability when using questionnaires is evident within Parasuraman et al (1988) SERVQUAL model where the groups had been produced from factor analysis. Studies that were
subsequently developed from the SERVQUAL model, but not subject to factor analysis, have been criticised by other researchers in the field for not having reliable groups within their questionnaires on which to base their collected data and findings upon.
"When attempting to refine SERVQUAL, Parasuraman et al., (1991) also failed to replicate their original five-factor structure, as did Knutson et al. (1991), LODGSERV, and Stevens et al. (1995), DINESERV. It is also worth noting that these studies have not reported factor-structures, hence, it is difficult to evaluate the reliability and utility of these models" (Kivela et al, 1999: 5).

However, due to the internal and reliability tests that can be completed on factor groups, the accuracy of factor groupings can be tested and therefore the groups can be justified as being accurate and well founded.

### 5.6 Variable Tests

Once factor groups have been created it is then necessary to understand what other variables looked at by the questionnaire are related to each group. This was the purpose of introducing the socio-economic questions, to identify patterns of behaviour that are significantly reflected by each group.

### 5.6.1 Correlation

Correlation determines if two variables are, without assuming correlation, linearly related (Janssens et al, 2008). The correlation test uses bivariate data, as two variables are involved - independent and dependent. Correlation is used to understand the behaviour of a variable in relation to the value of the second variable (Pallant, 2007).

Table 5-15 is an example of a correlation test where the factor groups have been tested against the number of hours spent watching television per week. It can be seen that there is a significant outcome for factor groups 1 and 4 as both of these show positive correlations.

**. Correlation is significant at the 0.01 level (2-tailed).
Table 5-15: Correlation for Television Watching Hours by Factor Group

### 5.6.2 T-test for independent samples.

The purpose of the T-test is to find out if there is a difference in the preferences between the factor groups and relevant variables. The test is applied to data that is not related, for example, by repetition of responses (Miller et al, 2002). The 'Levene's' test of equality of variances (based on the F-statistic) (Miller et al, 2002) is used to understand if the group variances are equal. The resulting outcome indicates which number from within the generated table needs to be read - whether it is the t-value from the case of equal variances, or unequal variances. From this point, if the number is significant, then the group statistics number can be read to see the difference within the factor group (Miller,
2002).

It needs to be noted that T-tests only show a significant difference and not a particular outcome, nor does the outcome 'predict' trends. For example, in Table 5-16 (sourced from the data in Appendix 4) it is evident that more people in Factor group 1 read, than do not read, the Daily Mail newspaper. However, the outcome does not conclude that this is the only paper read by factor group 1 readers, or that everyone in the group reads this particular paper. It simply indicates that within this group of people significantly more do read this paper than do not. It also does not signify that other groups do not read a particular newspaper, or the frequency that a paper is read, it purely highlights that there is a significant difference within the particular group.

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In addition to which factor groups newspapers have a significant level of readership, or non-readership with, the activities of the factor groups were also analysed through T-
tests (see Appendix 4.8). Where an activity that was on the questionnaire is not presented in Table 5-17 this means that there was no significant outcome for that particular activity with any of the factor groups.

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The reason that T-tests are important is that they begin to build up a picture of the factor groups and provide insight into trends that can then be utilised. For example, if a mail order wine club was advertising, the T-test results could be analysed to see which factor groups were interested in wine. Then the papers that the groups are likely to read could
be established from the T-tests and finally from existing readership demographics, it would be possible to decide which newspaper to target with the advertising.

### 5.6.3 ANOVA Tests (Analysis of Variance)

Analysis of variance (ANOVA) is an extension of the T-test that is used to test categorical data which contains a number of variables within the dataset. The test compares group variance with individual variances. If the gap within the group is larger than between the individuals of the groups, then it is the groups that make the difference which will be demonstrated in the output (Miller et al, 2002). Along with the standard ANOVA test a Scheffe post-hoc test was also run in order to be able to see if any difference showing in the ANOVA table were actually significant.

Table 5-18 to Table 5-20 displays what the output for the ANOVA test looks like and presents clearly some strong significant outcomes for the different factor groups with regard to how many people live within the household.


Table 5-18: Descriptives Section for ANOVA Test

## ANOVA

|  |  | Sum of Squares | Df | Mean Square | F | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Between Groups Within Groups Total | $\begin{array}{r} 5.692 \\ 1878.308 \\ 1884.000 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 1882 \\ 1884 \end{array}$ | $\begin{array}{r} 2.846 \\ .998 \end{array}$ | 2.852 | . 058 |
| REGR factor score 2 for analysis 1 | Between Groups Within Groups Total | $\begin{array}{r} 1.977 \\ 1882.023 \\ 1884.000 \end{array}$ | $\begin{array}{r} 2 \\ 1882 \\ 1884 \end{array}$ | $\begin{array}{r} .988 \\ 1.000 \end{array}$ | . 988 | . 372 |
| REGR factor score 3 for analysis 1 | Between Groups Within Groups Total | $\begin{array}{r} \hline 8.586 \\ 1875.414 \\ 1884.000 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 1882 \\ 1884 \\ \hline \end{array}$ | 4.293 .997 | 4.308 | . 014 |
| REGR factor score 4 for analysis 1 | Between Groups Within Groups Total | $\begin{array}{r} \hline 60.459 \\ 1823.541 \\ 1884.000 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 1882 \\ 1884 \\ \hline \end{array}$ | $\begin{array}{r} 30.229 \\ .969 \end{array}$ | 31.199 | . 000 |

Table 5-19: ANOVA for Numbers Living in the Household

## Multiple Comparisons

Scheffe

| Dependent Variable | (I) new total house |  | (J) new total house | Mean Difference (I-J) | Std. Error | Sig. | 95\% ConfidenceInterval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Lower Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | dimension2 | pto | 3-4 | . 11840933 | . 05538282 | . 102 | -. 0172618 | . 2540804 |
|  |  | 2 | dimension 3 over 5 | -. 12217348 | . 14107044 | . 687 | -. 4677532 | . 2234063 |
|  |  | 3-4 | $\text { dimension3 }{ }_{\text {over }}^{2}$ | $\begin{array}{r} \hline-.11840933 \\ -.24058281 \end{array}$ | .05538282.14680759 | $\begin{aligned} & .102 \\ & .261 \end{aligned}$ | $\begin{array}{\|l\|} \hline-.2540804 \\ -.6002168 \end{array}$ | .0172618 <br> .1190512 |
|  |  |  |  |  |  |  |  |  |
|  |  | over 5 | dimension3 $2^{\text {upto }}$ | . 12217348 | . 14107044 | . 687 | -. 2234063 | . 4677532 |
|  |  |  | 3-4 | . 24058281 | . 14680759 | . 261 | -. 1190512 | . 6002168 |
| REGR factor score 2 for analysis 1 | to |  | dimension3$3-4$ <br>  <br> 5 | $\begin{array}{r} -.03191159 \\ .17301762 \end{array}$ | .05543757 <br> .14120990 | .847.472 | $\begin{array}{\|l\|} \hline-.1677168 \\ -.1729038 \\ \hline \end{array}$ | $\begin{aligned} & \hline .1038936 \\ & .5189390 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |
|  | dimension2 | 3-4 | dimension3 ${ }^{\text {upto }}$ 20 ${ }_{\text {over }}$ | $\begin{aligned} & \hline .03191159 \\ & .20492921 \end{aligned}$ | $\begin{aligned} & .05543757 \\ & .14695273 \end{aligned}$ | $\begin{aligned} & \hline .847 \\ & .378 \end{aligned}$ | $\begin{array}{\|l\|} \hline-.1038936 \\ -.1550603 \\ \hline \end{array}$ | $\begin{aligned} & .1677168 \\ & .5649188 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | dimension3 $\begin{aligned} \text { upto } \\ 2 \\ 3-4\end{aligned}$ | $\begin{array}{r} \hline-.17301762 \\ -.20492921 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 14120990 \\ .14695273 \\ \hline \end{array}$ | $\begin{aligned} & \hline .472 \\ & .378 \end{aligned}$ | $\begin{array}{\|c\|} \hline-.5189390 \\ \\ -.5649188 \\ \hline \end{array}$ | $\begin{aligned} & \hline .1729038 \\ & .1550603 \\ & \hline \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
| REGR factor score 3 for analysis 1 |  |  | dimension3$3-4$ <br> 5 <br> 5 | $\begin{array}{\|c\|} \hline .15520996^{*} \\ \hline .15735978 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline .05534015 \\ .14096175 \\ \hline \end{array}$ | $\begin{array}{r} .020^{*} \\ .536 \end{array}$ | $\begin{array}{\|r\|} \hline .0196434 \\ -.1879537 \\ \hline \end{array}$ | $\begin{aligned} & \hline .2907765 \\ & .5026733 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | dimension2 | 3-4 | $\begin{aligned} & \hline \text { upto } \\ & 2 \\ & \text { dimension3 } \\ & \\ & 5 \\ & \hline \end{aligned}$ | $\begin{gathered} .15520996^{-} \\ .00214983 \end{gathered}$ | $\begin{array}{\|l\|} \hline .05534015 \\ .14669448 \\ \hline \end{array}$ | $\begin{aligned} & \hline .020^{*} \\ & 1.000 \end{aligned}$ | $\begin{array}{\|l\|} \hline-.2907765 \\ -.3572071 \end{array}$ | -.0196434.3615067 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | over5 | upto  <br> dimension3 2 <br> $3-4$  | $\begin{array}{\|l} \hline-.15735978 \\ -.00214983 \\ \hline \end{array}$ | $\begin{aligned} & .14096175 \\ & .14669448 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline .536 \\ 1.000 \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline-.5026733 \\ -.3615067 \\ \hline \end{array}$ | $\begin{aligned} & \hline .1879537 \\ & .3572071 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| REGR factor score 4 for analysis 1 |  |  | dimension3$3-4$ <br> ${ }^{\text {over }}$ <br> 5 | $\begin{aligned} & .42338029^{*} \\ & -.30310635 \end{aligned}$ | $\begin{array}{\|l} \hline .05456944 \\ .13899860 \end{array}$ | $\begin{gathered} .000^{*} \\ .093 \end{gathered}$ | $\begin{array}{\|l} \hline-.5570588 \\ -.6436107 \end{array}$ | -.2897017.0373980 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | dimension2 ${ }^{\text {3-4 }}$ |  | dimension3 ${ }^{2}$upto <br>  <br>  <br> 5 | $\begin{array}{\|l} \hline .42338029^{*} \\ .12027394 \end{array}$ | $\begin{array}{\|l\|} \hline .05456944 \\ .14465149 \end{array}$ | $\begin{gathered} .000^{*} \\ .708 \end{gathered}$ | $\begin{array}{\|c} \hline .2897017 \\ -.2340783 \end{array}$ | $\begin{aligned} & .5570588 \\ & .4746262 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  | $\begin{aligned} & \hline \text { upto } \\ & \text { dimension3 } 2 \\ & 3-4 \end{aligned}$ | .30310635-.12027394 | $\begin{aligned} & .13899860 \\ & .14465149 \\ & \hline \end{aligned}$ | $\begin{aligned} & .093 \\ & .708 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.0373980 \\ & -.4746262 \end{aligned}$ | $\begin{aligned} & \hline .6436107 \\ & .2340783 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

Table 5-20: Scheffe Output

* The mean difference is significant at the 0.05


## level.

All of the tests described have been used to analyse the data collected and combine the information within the four factor groups. This has provided groups with shared behaviours that can now be looked at as distinct customer groups.

### 5.7 Summary

From 2220 data sets based on 17 questions a significant amount of data was generated as can be seen in the appendices (Appendix 4). Through initial factor analysis tests, four customer cohorts emerged. To ensure that the factor groups were well founded a number of additional parameters, such as, a high CITC number were applied.

To be able to attribute identities and behaviours to the factor groups, the most appropriate statistical tests were used to analyse the data relating to the socio-economic aspects of the questionnaire. Combing the statistical test outputs with the factor groups and interpreting the resulting outcomes was the basis for the practical typology. This further analytical work, the subsequent insights and the rationale for the development of the practical typology are discussed in the following chapter, Chapter 6.

## 6 Typology Development

Following on from conducting a range of statistical analyses it was possible to demonstrate how a large customer group can be split up into individuals to statistically assess behavioural traits. After this, the groups can be rebuilt but in a different format creating smaller groups that behave in the same way and share additional socioeconomic variables. These 'factor groups' then demonstrate how different cohorts of customers behave in relation to dining out and their overarching expectations. It is proposed that the development of these customer archetype groups can be employed in both practical and theoretical terms.

Many of the models for the hospitality industry, for example, the framework suggested by Jones and Lockwood (1998) and the Khan and Khan model (2009) are actually focussed on the industry instead of the customer and look at, for example, the content of the industry, or technologies and process. The taxonomies and models that do consider customers are beyond the hospitality sphere and so, although there may be similarities in the overall context, that is customers, what is being evaluated is not relevant (amongst other see Claxton, Fry and Portis, 1974; Jarrat, 1996; Belk, 1975). The difference with this study's typology is that it develops a practical typology for the hospitality industry, whilst demonstrating customer behaviours, and the rationales for these actions, as well as, also building in expectation requirements.

Based on the data collected from 2200 dining out customers, it was evident that by defining the respondents' expectations by meal cost and establishing the parameters of cost brackets, dining out customers can be placed within a number of similarly behaving groups. Although the details of customer opinions of cost along with resulting expectations is of benefit to the hospitality industry, the practical typology is extended
by then considering socio-economic factors. This provides the potential for a more extensive model, with the socio-economic characteristics underpinning and providing a rationale for the different customer groups, and subsequently also providing further information into customer behaviours and habits in general.

### 6.1 Typology

This section first tabulates the data and then explains the 4 customer groups (factor groups) that have been created. This is the accumulation of all of the research data and interpretation of the data through, factor analysis (Table 5-14), ANOVA tests, correlation and T-tests (Appendix 4). This is in addition to much of the initial developmental analysis work that was conducted, which included, work within SPSS, such as, frequency tests, cross-tabulation tables, Chi-square tests and data reorganisation (Appendix 4). What can be seen from Figure 6-1 is all of the information that has been required to create the typology to define customers in the context of socio-economic factors, with specific reference to meal cost and the influence on expectation generation in a dining out context.

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### 6.1.1 Factor Group 1 (FG1)

Members of factor group 1 (FG1) are 45-75 years and over (significant) in age range, which fits in with one of the main occupations of the group of being retired, along with skilled and processing jobs. The general nature of the jobs fitting into the recognised brackets from the Office for National Statistics (2005c) reflects the main earning band of $£ 13,000$ to $£ 34,999$. There appears to be just one other in the home, described as 'other people living at home', whom the age range seems to indicate is likely to be a partner. Considering the age of the group, 45-75 and over, the age range of the other person living at home is likely to be 19-40, 41-65, or over 65 and all of these age groups fit around the respondents' age range. The likely activities that are participated in by this group are DIY, fishing, gardening, wine appreciation and cruise holidays. However, running is an activity that many of this group are unlikely to enjoy. The group numbers are likely to read a paper and definite favourites of the group are the Mail and Mail on Sunday, however, The Times was a paper that was not regularly taken by the group. The group fell into 2 categories of television watchers; those who watched 15-21 hours per week and the heaviest user category of 32 , or more hours per week. When looking at the personality traits of the group there appears to be a split, for example, family is both very important and very unimportant to this group and being a 'foodie' is very important, a neutral issue, or very unimportant. Although the majority of the group say they do not have food interests, actually, food events are something which the group likes to participate in. The group creates 2 sub-groups, when looking at what they consider the price of a meal to be for an inexpensive, mid-priced and expensive meal - this could be reflective of the large salary range of the group. $£ 0-£ 7$ and $£ 16+$ were the price brackets for an inexpensive meal, $£ 0-15$ and $£ 16-£ 20$ for a mid-priced meal and $£ 0-£ 25$ and $£ 26-£ 38$ for an expensive meal and although 2 groups have emerged, each price category moves up logically for each meal price bracket. FG1
live within a 10 minute walk of a number of pubs and a few fast food outlets but not restaurants. This may explain why this group have, on average, visited a pub more than 10 times in the past 6 months and in terms of café visits, these are low at just 2 in the past 6 months although restaurant visits are between 6 and 10 times in the past 6 months. When dining out FG1 consider tableware and budget as important factors but socialising is not a driving factor for going out to eat.

Expectations that are important to this group when dining out (Table 6-1):

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### 6.1.2 Factor Group 2 (FG2)

FG2 is what could stereotypically be described as the 'professional working' group. This group are largely aged 35-44 and earn the highest salaries of all of the groups, that is $£ 46,000$ to $£ 56,999$ per annum. The likely job categories are towards the higher end of the occupations scale with the respondents being managers, semi-professionals, or processors. It is likely that the majority of people in this category do not have children as, although one of the categories of ages of people living at home is under 18 , the other age groups (9-40, 41-65 and over 65) seem to fit in more with the main age group of the respondent. Additionally, as usually there is only 1 other person in the household it is potentially a partner. This is a very active group; they visit pubs, cafes and restaurants
regularly (over 10, over 10 and 6-10 times respectively) and they enjoy cooking, crafts, eating out, travel, gourmet food, reading and wine appreciation. The only trend seen with regard to reading material is that this group has a liking for the Telegraph. This group live in relatively urban areas with there being 5-9 restaurants, $0-9$ pubs and 5-9 fast food outlets within a 10 minute walk of the respondents house. This group like food and when answering if they thought of themselves as a 'foodie, if they had food interests and if they liked food events they fell into the strongly agree as well as the agree categories. FG2, in-line with their salaries, showed the highest expectations of prices likely to be paid for inexpensive, mid-priced and expensive dining, that is, $£ 8-10$ and $£ 16+$ for an inexpensive meal, $£ 27+$ for a mid-priced meal and $£ 51+$ for an expensive meal. This group look to socialise when dining out and as expected with what appear to be busy lifestyles, this group watch the least television at just 8-14 hours per week.

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### 6.1.3 Factor group 3 (FG3)

FG3 are a mixed group in terms of age: 24-34 and 55-75+ and this is also reflected in the most popular occupations of this group which are retired and processors and semiprofessionals. It is evident that FG3 consists of younger people, who are still of employment age, and older people who fall into the retirement category. With regard to
who is also in the house excluding the respondent, the respondent could possibly be single, or has a partner, maybe an older child at home, or even a parent. FG3 are very food orientated and include cooking and gourmet food in their likely list of activities pursued. This is also reflected in the amounts they consider are likely to be paid for an inexpensive, mid-priced and expensive meal: $£ 16+, £ 27+$ and $£ 51+$ respectively which are the highest consistent set of cost expectations. Time and budget are not factors that influence FG3 to dine out and of all the groups FG3 spends the most time in pubs, cafes and restaurants with visits for the past 6 months being over 10 times, 3-10 times and over 10 times respectively. This group also live close to areas where there are pubs, cafes and restaurants as within a 10 minute walk of the house, the most popular number for each of the establishments was $10+$. Cultural events, crafts, travelling, gardening, reading and other activities were also significant activities for FG3 to participate in, although they were not keen on golf. The most likely read paper for this group is The Times and FG3 spend an 'average' amount of time watching television 15-21 hours per week.

Expectations that are important to FG3 group when dining out (Table 6-3):
$\square$

### 6.1.4 Factor group 4 (FG4)

Significantly, FG4 is made up of under 24 year olds, however, the age group 35-44 is closely linked with this group although it is not significant. This group have traditional, processor or individual types of job and the group's earnings vary from less than $£ 12,999$ to $£ 45,999$ per annum. At home there are between 2 and 3 people, other than the respondent, this combined with the age ranges being under 18, 19-40, 41-65 and over 65 show a family set up of perhaps a partner and children, or the respondent being the 'child' and possibly even extended family living in the home. This group have more activities that they are unlikely to do than they actually enjoy partaking in: cooking, cultural event, eating out, travelling, golf, reading, tennis, running and wine appreciation and gourmet food. This unlikeliness to eat out is reflected by the number of times this group visit a pub in 6 months (up to 5 times), visit a café (3-5 times) and eat at restaurants (up to 5 times) these numbers are the lowest visit figures of all the factor groups. The combination of not enjoying eating out and the relatively low salaries may also explain the comparatively low amounts expected to pay when dining out. For an inexpensive meal up to $£ 10$, for a mid-priced meal up to $£ 20$ and for an expensive meal up to £38. These figures are very similar, if slightly lower, than FG1. As with FG1 tableware and budget are important factors considered when dining away from the home, as is time. However, experiencing a different environment, or new food are unlikely to be considerations for FG4. FG4 do not live close to many restaurants, pubs, or fast food outlets ( $0-4,0$ and 1-4 respectively) and although some within the group consider themselves to be foodies, overall, this group are neutral, or even disagree that they are interested in food. From the household set up and age groups it would appear that children are present in FG4 respondents' families and perhaps this accounts for the rating of 'strongly agree' when it comes to considering how important family is. Conversely, it is worth noting that at the other end of the scale 'disagree' is also
significant for this group. FG4 watch the same amount of television as FG1 (15-21 and over 32 hours) per week and these are the highest number of hours of all the responses. Another media interest is The Sun newspaper, although in general, this group are unlikely to read a paper and The Sunday Times, the Telegraph, The Times and 'other' papers are the papers most unlikely to be read by this group. The groups lack of interest in papers may be due to finding information on line as this was the only group who had an interest in computers, along with crafts and DIY.

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### 6.2 Typology Summary and Conclusions

This chapter has analysed the groups that have been produced by attributing variables to the factor groups. The results from the different statistical analysis tests along with the factor analyses have determined that there are four customer groups that each have different expectations when dining out. By differentiating the groups, insight is provided into the type of person who may fit into each of the four factor groups and what varying behavioural and socio-economic traits define them.

The flowing chapter considers these findings, along with the literature review findings and a discussion how all of the research amalgamates to answer the aims and objectives. Furthermore, presentation of the practical typology and a theoretical model, thus providing a contribution to the subject area, is displayed in Chapter 7, the Discussion Chapter.

## 7 Discussion

This chapter explores and discusses the findings generated by the quantitative research as detailed in Chapters 4,5 and 6. Through combining the existing theory, as identified in Chapter 2, with the research outcomes, the chapter proposes to establish links between the two sets of information. The outcomes of the study, discussed here, will provide information for the hospitality industry along with research considerations for the related academic field. Additionally, the information derived from this research into customer expectations of dining out in relation to meal cost will add further knowledge to the currently limited general area of customer expectations.

### 7.1 Review of Study Rationale and Aims

The intention of this chapter is to discuss the study findings and to develop a clearer understanding of customer expectations of dining out whilst also considering the impacts of customers' socio-economic situations. The key topics that can be seen progressing through, and underpinning the study and, therefore, this chapter are 'customer expectation' in relation to dining out, 'socio-economic influences' and their impact upon customer choice and the subsequent development of a practical typology and theoretical model.

Tables 1-1, 1-2 and 2-1 (in Chapters 1 and 2) demonstrate the investigation of information for this study and how the themes from the literature informed the aims and objectives and ultimately the research. Table 7-1, presented here, demonstrates the framework based on the aims and objectives for this chapter and highlights how, in order to discuss customer expectations of dining out, there has to be a synthesis of
understanding between the separate areas of restaurants, customer expectations and socio-economics. All of the aims and objectives set by the study have been addressed by the investigative work, which subsequently provides further insights into the research area, along with the development of a practical typology of customers and theoretical model.

Aims and Objectives as a Framework for the Discussion Chapter and Proposed Models

Aim 1-To analyse and synthesise the body of knowledge related to customer expectations of dining out.

Aim 2 - To undertake a substantial data collection exercise to enable an evaluation of customer expectations of dining out.

Aim 3-To clarify and derive meal costs from a customer perspective.
Evaluate what customers determine as the cost brackets for inexpensive, midpriced and expensive restaurants based on meal cost.

Aim 4-To assess how customer expectations vary between different restaurant types.
Classify customer expectations of different restaurants as determined by cost categories.

Aim 5-To evaluate what influences customer expectations of dining out.
Analyse the influence of socio-economic characteristics on customer expectations.
Assess the extent to which expectations are consistent amongst the different socio-economic groups.

Aim 6-To make an original contribution to knowledge through the development of the study findings in the context of customer expectations of the dining out experience.
Develop a practical typology in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics.
Develop a theoretical model in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics.

Table 7-1: Framework for the Discussion Chapter and Proposed Models

This study took the view from the outset, that being able to afford a meal was fundamental in choice, even if this translated into saving for an occasion. Therefore, although there are many established reasons behind restaurant choice, if the meal cannot
be paid for, it cannot be purchased in the first place. This raised the importance of meal cost and, in turn, identified that there were different price brackets of restaurants for customers to dine in. Consequently, the study needed to explore in-depth pricing and the restaurant variables that customers expect within each price bracket. The combination of generating a significant number of data sets, along with the recognition from existing literature that further customer understanding is required in relation to expectations, provided the opportunity to produce a practical typology and a theoretical model. It is planned for the model to contribute to the theoretical research area, and the typology to provide an industry application opportunity.

In combination with the existing literature considerations, the Discussion Chapter considers the study outcomes that have been generated by the investigative work. To provide structure to the chapter the evaluations have been sectioned by a framework formed by the study's aims and objectives (as discussed in chapter 1). It is within section 7.8 of chapter 7 that the final practical typology and theoretical model are proposed, which are the original contribution outputs of the study.

### 7.2 Expectations Research

The literature reviewed for this study covered many aspects that all related to customer expectations when dining out and a number of questions have been raised, deliberated and posed by the literature. Many motivations and purposes have been identified as driving the requirement and action of dining out. However, no one theory has emerged to answer the questions that surround the action of customers dining out. In particular there are still unanswered questions over the importance of the tangible and intangible aspects of the experience, how to achieve customer satisfaction, ensuring repeat
patronage and questions that potentially affect other areas but may never have a definitive answer, such as, a customer's psychology and physiological impacts upon the experience.

Looking at the restaurant industry it can be seen that research has to move with the fast pace of the market and it is predicted that the UK will continue to consume a higher percentage of food outside the home in coming years (Mintel, 2005). Additionally, patterns of behaviour, such as, seeking convenience, the population's diminishing cooking skills and providing sustenance for a populations increasing appetite will increase (Mintel, 2005).

To progress the study beyond that of existing studies, an on-line questionnaire was developed for distribution amongst the e-subscribers of Delicious Magazine. To initially fulfil methodological objectives the questions were sourced from existing studies, along with information gathered from pilot studies (Appendix 3). Furthermore, consideration was focussed on achieving a UK wide survey along with a high number of respondents. This, as discussed previously, was in contrast to many other hospitality studies. A combination of expectation and socio-economic questions provided responses that have been looked at as a whole, but more importantly, later segmented through factor analysis. From the complete set of data it is feasible to establish aspects, such as, price points for dining out and general customer expectations for differently priced dining out establishments.

Post factor analysis, four groups emerged with varying expectations. This meant that it was possible to segment the respondents into groups who shared similar characteristics with regard to their dining out expectations. Combining the factor groups with the socio-economic outcomes from the questionnaire a practical typology and theoretical
model were created and proposed in section 7.8. The four factor groups were defined by either their choice of dining out establishment based on price, or the requirement to dine with family, or friends. Therefore, it can be seen that the different groups have various motivations driving their behaviour. Although the factor groups motivations for dining out are evident and each factor group shares a set of expectations through ANOVA tests, chi-square tests and T-tests it was also possible to attribute to each group common socio-economic characteristics and behaviours. Subsequently, these four groups demonstrate not only the expectations required by customers when dining out at differently priced restaurants, but also clarify the life characteristics that influence each factor group.

### 7.3 Aim 1-To analyse and synthesise the body of knowledge related to customer expectations of dining out.

From the review of the literature, it is evident why the study questionnaire was positioned to focus on the area of expectations and that the data gathered would be enhancing what Oliver and Winder (1989) describe as a largely neglected area in consumer behaviour research. Furthermore, these authors considered that to thoroughly understand consumer expectations it is necessary to recognise that expectations impact upon decisions being taken by customers in many different consumption settings. Robledo (2001: 23) also considered that customer expectations have not been well understood; "in particular, sources of expectation remain largely unexplored and expectation management is an area of study yet to be developed". Johnson and Mathews (1997: 290) concur "the current state of knowledge regarding expectations appears somewhat limited; they are far from being understood". From the data generated it was found that 2173 respondents had dined out within the past 6 months. When $97.6 \%$ of this study's research sample are found to use dining out establishments outside the
home, it demonstrates how potentially important understanding the customer is and especially so for the associated industry.

Customers choose to dine out for various reasons and this is recognised by a number of authors, for example, Jackson et al (2003) who discussed the drivers of consumption. These included aspects, such as, being social, or to enhance pleasure. Pedraja and Yague (2001) suggested that dining out provides solutions to problems, such as, avoiding cooking. Although surprisingly, what is not a recognised driver for restaurant patrons is biological need (Macht et al, 2005). From the findings of this investigation, five clear factors were identified as being important when choosing to dine outside the home: the social aspect, a change from home cooked food; the chance to experience new food; celebrating a special occasion; and finally budget considerations. Importantly, it was evident that what was frequently discussed in dining out literature was eating out being a social activity, or to do with an occasion and these issues along with the importance of homophily, (see amongst others, Autun et al, 2010) was also demonstrated by the study findings. There was a large gap between the five most important factors and the five lowest rated factors: convenience, time, other, tableware and to have similar food to that cooked at home, which could be seen to be less social, or pleasure based reasons. This concurs with many of the established findings (see, for example work by Mieselman et al, 2000).

Evaluation of restaurants is based on perception of the chosen place to eat (Pavesic, 1989), which can differ between dining out settings, but is related to the food meeting expectations (Moskowitz, 1995). This study demonstrated that across a large cohort group (2200 participants) all types of dining out establishments were being visited, and as the generated mean figures demonstrate, pubs, cafes and restaurants are visited in
fairly equal numbers. This reinforces the notion that customers will frequent dining out establishments that have different variables, such as, service, price, menu range and so on. With regard to expectation, an important finding, therefore, is that people can develop different expectations based on where they have chosen to dine - in other words, an expectation based on a 'fit for purpose' understanding. Subsequently, it is not necessary for all dining out establishments to provide the same offering based on the same set of criteria. Importantly, as Pieters, Koelmeijer and Roest (1995) have recognised for dining out establishments, satisfied customers purchase more, spread positive word of mouth and encourage others to visit.

This study concurred with the findings of Olson and Dover (1976) who suggested that expectations were formed by customers before the actual event happened. As can be seen from the findings, the respondents were able to consider and decide how they would rate their expectations of differently priced dining occasions. This additionally supports the theory that not only can expectations be formed beforehand, but there can be varying levels of expectation placed upon the same variables. This aligns with the theory that higher expectations will lead to better experiences in various contexts, that is, if a customer is paying a higher price for a meal, then it would be logical that they would expect a higher experience and subsequently they would form a higher set of expectations (Pieters, Koelmeijer and Roest, 1995).

The literature and theories examined by this study have provided a framework for the research, as well as, informing the study with regard to what research has been previously undertaken and the perspectives adopted. The key literature for this study (collated in Tables 1-1 and 1-2) has been considered throughout this study. Table 7-2
represents the outcomes and findings of this study in relation to the relevant published academic research.

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### 7.3.1 Customer Related Models

When considering customer expectations it is necessary to reflect on existing behavioural models. There are three models that this study considers to be of importance: Robledo's Expectations Management Model, the Howard Sheth Model and the Engel-Kollat-Blackwell Model.

Each of these models is in some way related to this study. For example, the Robledo Model is focussed upon expectations, and the Howard Sheth model includes social factors, as does the Engel-Kollat-Blackwell model. However, considering comments regarding complexity and how too much complexity can negatively affect understanding (Jackson, 2005), the Howard Sheth model and Engel-Kollat-Blackwell model could certainly be considered within this category. For example, within the Howard Sheth model there are four aspects of customer buyer behaviour being assessed: inputs, perceptual construct, learning constructs and outputs. Within each of these sections there are numerous variables along with forward as well as backward effects. Additionally, this model also tries to understand customer behaviour in circumstances out of scope of this study's purpose. From all of the dining out related literature it is evident that there is little consensus on many aspects of providing a positive meal experience. Additionally, considering Jackson's (2005) opinion, these models challenge the existing work due to factors of complexity, or that they overlook aspects in order to achieve an understanding of a different area. This can be seen with Robledo's model where, although expectation is the starting point of the model and many important influences are considered, the model progresses to understand the outputs of disconfirmation leading to perception outputs. Moreover, although expectation and expectation influence appear within the model there are no specific expectations described. So in addition to using expectations to achieve interpretations of perception, this model is not well detailed.

Both the Howard Sheth and Engel-Kollat-Blackwell models are focussed upon customer behaviour, which means they are not just related to the dining out market. Subsequently, as well as being out of context (Erasmus et al, 2001) they are also complex models that generalise. There are no specific details provided by the models
but instead they propose a pathway to understand how and why customers may purchase and behave in a certain way. Furthermore, expectations are not featured within either model.

### 7.3.2 Section Summary - Aim 1: To analyse and synthesise the body of knowledge related to customer expectations of dining out.

Through this research a number of models have been examined. However, the most relevant models have also been identified as being related to other fields of investigation, or very generic in their purpose. Although the models discussed have been influential, or used to inform an aspect of the study, no single model can be seen as providing a deductive foundation for this research. Therefore, this study has not produced a 'progression model' based on an existing authors' work. Instead, a number of approaches have been taken with regard to the data generated. First, customer expectations of dining out have been tabulated along with the inclusion of socioeconomic characteristics (Table 6-1). From this categorisation of information a practical typology model of customer expectations of dining out (Table7-7) has been created. The final stage has been to propose a theoretical model in relation to customer groups dining out expectations, predicted behaviours and socio-economic influences (Figure 7-1).

### 7.4 Aim 2-To undertake a substantial data collection exercise to enable an evaluation of customer expectations of dining out.

The literature reviewed has raised a number of issues that surround customers and their restaurant meal choices, including, decision making, reasons for dining out and factors directly relating to the restaurant. Indeed work by Cullen, (2011); Clark and Wood,
(1998); Pedraja and Yague,( 2001) and Koo, Tao and Yeung, (1999) to name but a few, have all tried to look at what determines choice and selection of restaurants by customers. However, this study was determined to find out further fundamental information on a more significant scale. Much of the current research, for example, Clark and Woods (1998) study and Hansen, Jensen and Gustafson's (2005) 'Customers' Meal Experience Model' (CMEM) used few participants and this is a recognised limitation issue acknowledged across hospitality research.
'Meal experience' research does not generally discuss customer expectations but does often include variables that this study has considered. Previous work into this area has been actioned to find out what is actually within the meal experience, as opposed to, using factors to decipher the gap between expectation and perception. The Five Aspects Meal Model (FAMM) by Gustafsson (2002) looked at five different areas of a customer's meal experience. The variables used were based on an analysis of Michelin Guide inspectors' meal experiences. The potential issue with this model is that a Michelin Guide inspector will only be frequenting a type of establishment that is already in the guide or seeking to be judged for entry into the guide. By the nature of the guide, these restaurants will be of a certain cost bracket and provide particular types of service and food. The 'Customer Meal Experience Model' which came after the FAMM should have been made up of more diverse variables, however, the variables consisted of data collected from just five focus groups. As defined by Bitner (1992), the existing hospitality literature often lacks sufficient respondents involved as customers in related hospitality research. Additionally, the studies of Andersson and Mossberg (2004), are made up of variables that have been accumulated through reviews of previous related studies, as opposed to any primary data collection. During this study's research to define price brackets for different meal costs, the validity of the
findings was established through a sample sufficiently large and wide (across UK) scale to facilitate analytical statistics.

Russell and Mehrabian's (1976) opinion, with regard to the creation of variables and ensuring that variables do not create redundancy of other variables, was considered when creating the variable list for this study. What was interesting was that the descriptors used by these authors were not variables, or terminology that came to light during the pilot study (Appendix 3). Furthermore, it was considered, during this study, that to allow for descriptors that may infer the variables to be used (as with the Russell and Mehrabian (1976) study) would not be accurate enough. The variables chosen for the respondents to rate when considering their dining out expectations, as discussed previously, were disseminated from many different authors' work along with the results from the pilot study (Appendix 3). The purpose of combining the two sets of data was to develop a concise and accurate list of variables that were considered by dining out customers when forming expectations. It is necessary to recognise the different purposes between this study's lists and the variables of previous researchers. Many of the existing customer expectation variables were formed based on the assumption that they would be the basis for a calculation by which to determine customer satisfaction. Whereas, the list generated for this study, was to understand the associations between customer expectation formation and the cost of the dining out establishment. Subsequently, it can be reasoned that there may, and should, be differences between the expectation variables of this study and those from previous studies.

Many studies highlight (for example, Lewis, 1981) how important the issue of food is within the dining out experience. This study demonstrated that factors move up and down in terms of importance between difference styles of restaurant - family, gourmet
and so on. However, other studies lists often stay the same. When looking at the variables that are important to customers of differently costing establishments some variables do not even feature across all restaurants. Additionally, it would be expected that the most expensive dining options would produce the most extended list of customer expectations. In fact, in terms of number of expectations that are considered significantly important by the corresponding factor groups, it cascades from the inexpensive, followed by expensive, then mid-priced and finally to the fewest variables for restaurants catering for groups and children.

Many studies have suggested numerous factors that can make a visit to a restaurant a successful experience and will encourage return rates. However, in many studies, the outputs are based upon variables that have no rationale, or credence for being within the study. Furthermore, the studies make generalisations across every type of customer and with the assumption that all customers visit the same dining out establishments. From looking at work by Bowen and Morris (1995) there also appears to be information generated by previous research that has almost gone beyond what is important in practical sense. No one questioned in the pilot study for this research (Appendix 3) considered aspects, such as, menu colour and design to be of importance. Although it is recognised that such work may have a specific use, this study considered establishing a customer determined list of expectations, that can be used for further work into customers and dining out, as an important list to achieve consensus over and more applicable to the industry than previous work.

### 7.4.1 Section Summary - Aim 2: To undertake a substantial data collection exercise to enable an evaluation of customer expectations of dining out.

Aim 2 of this study was concerned with completing a quantitative study on a large scale. The rationale for this was based on a number of factors related to previous research. First, in general, much hospitality research is considered to be 'small scale'. Secondly, the generation of data, which formed the basis of many studies, was sometimes second-hand and often an extension of a past research study, as opposed, to being independent and current.

The issue of 'variables' became a focus as an output from this study. In comparison to previous studies there is a sound rationale for the variables put forward as part of this study's questionnaire. It was considered that the variables were of paramount importance if they were to form a list of customer expectations that would provide further information, new knowledge generation and potentially have practical application to the industry.

### 7.5 Aim 3-To clarify and derive meal costs from a customer perspective.

## Evaluate what customers determine as the cost brackets for inexpensive, mid-priced and expensive restaurants based on meal cost.

When questioning respondents regarding the cost of an 'inexpensive' mid-priced' and 'expensive' meal when dining out, no guidance or scenarios were provided, rather the interpretation was left to the respondent. Arora, Singer and Bloch (2006: 90) in their study asked "do people go out to eat or to dine" (2006) they suggest that partially this question can be answered by what the customer aims to achieve from the meal and the type of restaurant chosen. As so many different dining out establishments exist,
gauging what customers considered to be different price brackets for dining out, was the rationale for not intimating the dining out format. Ultimately, the question aimed to define meal cost for an 'average' or 'typical' meal for the person responding. This would result in price points that could be taken as a 'general' picture for the market.

Although average meal prices are often generated, such as, facts for tourist information (for example, The Good Food Guide, (Carter, 2011)) these are sourced from restaurant material, where average meal costs have been calculated from menus, as opposed to what customers consider the meal cost should be. Another layer to the data generated is that it includes three cost points in relation to meal price: inexpensive, mid-priced and expensive. Due to the same participants answering the questions on all of the cost points, it can be considered that these were more accurate. Deliberating the three price points made the respondent consider the relativity of the numbers against each other, as opposed to suggesting a single cost without any parameters.

From the data collected for this study, it was clear that there was a wide gap between the lowest points and the highest points, for what the respondents considered to be an inexpensive, mid-priced and expensive meal. However, this is based on the complete set of responses and before the data had been analysed through factor analysis. Once this data was fitted into the practical typology, what can be seen is that FG1 and FG4 were always at the lower end of the amounts (£) that constituted the differently priced meal options. FG2 and FG3 consistently significantly provided costs at the higher end of the price categories. FG1 expectations aligned with inexpensive dining out establishments, whereas FG2 was purely concerned with expensive restaurants. For all of the groups, the typology provides extra information that could not be sourced from speculation, such as, home life scenarios. Although FG3 had provided higher amounts
for what was expected to pay for their meals, in fact, this group aligned with expectation factors that happened within mid-priced dining establishments. This infers that this group may have the disposable income to spend, but were less likely to frequent expensive restaurants than mid-priced ones. This concurs with further findings of the typology that demonstrated budget was not a consideration for FG3. FG4 indicated that they have expectations relating to inexpensive, mid-priced and expensive, however, this was in relation to providing dining for children and groups. Hence, although this group may visit restaurants across the cost spectrum, their main focus was a form of social, or family dining.

The following table (Table 7-3) shows the average prices for the different price points that were obtained from the data collection.

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Although much work has focussed on customers and restaurants, (see amongst others, Bitner, 1990; Cardello, 1995; Pedraja and Yague, 2001; Tse and Wilton, 1998) what is lacking from the existing literature is how customers viewed the cost of the meal. This information could have significant impacts for the industry because rather than restaurant owners, or managers estimating what the price of a mid-priced meal should be, there is now cost data available for their relative position in the market. With the economy under strain at this present time (Study Perspectives (2012), what is also necessary to consider is that it has been identified that customers do source information
before choosing where to dine (Pedraja and Yague, 2001). Therefore, if the meal cost is checked by a customer, for example, through an on-line menu source prior to booking, or if the meal cost does not align with the price category that the restaurant is perceived to be in, then this may induce the customer to find another venue. Many authors recognise the importance of pre-consumption (for example, Fisk, 1981) and have discussed how there is a pre-consumption period for customers, therefore, available information does have the potential to influence customers even before the restaurant has been frequented. With the expansion of the industry (Caterersearch, 2010) there is considerable competition and if customers are seeking information (active-state) or, for example, over-hear commentary (passive-state) (Pedraja and Yague, 2001) regarding price, and it does not fit into how they perceive the restaurant, this could have a negative impact upon future visit intentions.

Aside from affecting customer decisions on whether, or not, to dine at a restaurant, the price point at which a restaurant sets itself at is a factor that will modify customers' levels of expectation (Clow, et al 1997). Therefore, knowing about customer interpretations of price points could help a restaurant fit into their desired category. This will subsequently align expectations with what is being provided. This is supported by Maskowotz's (1995) work which establishes that, as long as the meal is what was expected, it is judged against these merits and not in comparison to other dining out options.

### 7.5.1 Section Summary - Aim 3: To clarify and derive meal costs from a customer perspective.

The rationale for investigating meal costs from a customer perspective was based on the context that this work had not been completed previously. Although the hospitality industry may be the provider, with regard to dining out provision, it was considered by this study, that meal cost is an aspect that customers should inform the industry on. The rationale being that, as end users, the customers will be the people deciding if the meal cost is appropriate and reflective of their assumptions as to where a restaurant sits in the marketplace.

From the work completed by this study, the cost of dining out has been attached to customer expectations. The subsequent information generated by this research, that is, the practical typology and theoretical model (see Table 7-7 and Figure 7-1) demonstrate how specific dining out cost categories can be aligned with different customer groups with varying expectations.

### 7.6 Aim 4-To assess how customer expectations vary between different restaurant types.

## Classify customer expectations of different restaurants as determined by cost categories.

Assessing the information provided from the respondents for different price categories of restaurants and disseminating the expectations of the three price categories of dining out establishments, it is clear to see that, the general public do not have an issue with distinguishing between different types of eating out venues. The Mintel (2004) study that highlighted how customers choose different eating venues further supports this. In the Mintel (2004) study, diners who ate out regularly chose a restaurant $44 \%$ of the
time, $36 \%$ of the time a pub was chosen and the remaining time was split between fast food outlets and cafes. There was more of an even split between the three establishments for this study, with restaurants being the most popular by a slight margin. Nevertheless, the pattern is similar and potentially there could have been uplift in pub usage due to recent media coverage (Flanders, 2012) of the UK economy, because as Mintel (2004) identified, pubs are seen to provide more value for money. However, the purpose for dining out is more likely to be a driver for deciding which type of restaurant is most suitable for a particular occasion. The importance of budget is an apparent consideration when dining away from home for FG1 and FG4 and this concurs with FG1 looking to spend the least of the factor groups. Tableware (FG1 and FG4) is also important as is time (FG4) to these groups. Social and 'other' reasons are what FG2 and FG3 respectively look for. The recognition that factors are being considered by the respondents when dining away from the home, supports the finding that customers define between different restaurant venues and the distinctions that they can offer. The range of reasons (Table 7-4) and the clear mix of active and passive actions related to choice, as to why respondents dine somewhere for the first time, demonstrates further that customers can distinguish between different dining out environments in-line with their purpose for dining out.

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Establishing that customers have numerous rationales for dining out, combined with various restaurant offerings, is an important platform to then comprehend if, along with different restaurant choices, whether customer expectations change accordingly.

Referring to Table 7-5 it contains the most important variables with regard to customer expectations when dining out. It can be seen that there are clear differences about what variables are important to customers in varying meal cost scenarios.

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Meiselman et al (2000) discussed the relationship between how the environment was perceived and how highly the meal was considered. The work of Steptoe et al (1995) also looked at the impacts of pricing and it was suggested that for those on a higher disposable income, sensory appeal was more important. Additionally, Cardoza's (1965) study also considered cost, however, the cost was described as an 'effort' that is, the more effort that a customer has to put into achieving a product, then the higher level of satisfaction achieved. From Cardoza's (1965) research it would be expected that the higher the meal cost and the more 'effort' being put into the dining out event, the higher the level of expectation and the more important the sensory attributes would be. However, from this study, in the expensive meal expectation scenario, although sensory attributes are shown to be of importance atmosphere and décor appear fifth in the list and are not listed in Table 7-5 due to a reasonably sized gap in significance between the listed important factors and atmosphere and décor. Conversely, atmosphere and décor appear in both lists of expectations for inexpensive and mid-priced meals. Therefore, what these results indicate is an inverted translation of what perhaps would be expected
when combining the considerations of expectation and the work of Meiselman et al (2000), Cardoza (1965) and Steptoe et al (1995).

Perhaps work that aligns more with this study is that of Wakefield and Blodgett (1994) who established a link between choice of restaurant and a customer's susceptibility to environmental aspects. Looking at the different cost categories, it is evident that whatever the reasons are to dine out, and whatever the cost of the restaurant chosen, atmosphere was always a variable that was of some importance. With regard to Wakefield and Blodgett's (1994) work it is however necessary to recognise that they assessed susceptibility and once again, this is an example of research using expectation as a reference point, not for direct interpretation.

When considering the problem of concluding what customer expectations were of different restaurants, as determined by cost categories, then the corresponding factor groups each indicate, what the most likely customer group's (in Table 7-6) expectations would be.

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Percy (1976) wrote about influencing different segments of the population and thus recognised that the population could be segmented and Auty (1992) acknowledged that restaurants could segment themselves for different groups of customers. Furthermore, Auty's (1992) work considers that individual elements of the restaurant environment become the deciding variables when making the final decisions on where to dine. This study aligns with Auty's viewpoint and the outcomes of this study therefore assist in determining the factors that are important to each dining out category.

### 7.6.1 Section Summary - Aim 4: To assess how customer expectations vary between different restaurant types.

It is clear from the diversity of the UK restaurant industry that customers can, and do, view the restaurant market as being segmented. However, little research to date, has established the variations in expectations of different customer groups. As the restaurant industry is so extensive, the most logical way to investigate customers differing expectations was to section the industry by cost.

Recognising what customers expected from varying dining out scenarios could have huge implications for a number of industry aspects, such as, repeat patronage and marketing. Although some researchers have recognised that customers do not all behave in the same way. To date, in previous research, no specific or statistically based recommendations have been made with regard to what is expected from different segments of the restaurant industry by customers.

This research, through statistical analysis, has presented significant information on the expectations of the customer groups who are likely to frequent particular cost categories of dining out establishment.

### 7.7 Aim 5-To evaluate what influences customer expectations of dining out.

Analyse the influence of socio-economic characteristics on customer expectations.
Assess the extent to which expectations are consistent amongst the different socio-economic groups.

Olsen, Warde and Martens (2000) in their study demonstrated that customers dine out in accordance with group belonging linked to age, education, class and income. This study concurs with Olsen, Warde and Martens (2000); Binkley, (2006); Byrne, Capps Jr, and Saha (1998); Kim and Geistfield(2003) and has found that when people dine at an establishment that configures with their opinion of what they would pay for an inexpensive, mid-priced, or expensive meal, they conform to an identified group and each group shares other common traits.

It is important to recognise the traits of each factor group rather than making assumptions. An example of this would be, if considering the original cohort for this study, it could be assumed that those on lower incomes would eat out less and expect to pay less for a meal. However, this basic rationale would not demonstrate the complete picture of how circumstances of certain situations display themselves.

Many authors, for example, Riley (1994); John and Pine, (2002); Auty, (1992); and Finkelstein, (1989) discuss various factors of importance for those dining out.

However, they do not deduce if the variables are consistent, across all dining out options. The output of such general research is that restaurateurs would conclude, if trying to implement any of the research, that they need to encompass every type of variable. However, this study has demonstrated that, dependent upon the cost of the meal offering, the main customer group identified by this research would only consider certain variables to be of importance.

Many of the variables that feature in the lists of expectations for this study need some form of assessment, or interpretation and this is where semiotics comes into effect. It could be argued that semiotics is the start of the disconfirmation process and therefore moves beyond what this study is trying to achieve. However, an important aspect, which is accepted by this study, is that expectations can be based on memories or experiences (Tolman, 1932) and therefore, understanding how those memories of variables were formed, that is, through use of semiotics is important. Semiotics is not an aspect that is being tested by this study, it is instead, an area that is accepted and forms part of the understanding into the way that customers view many variables.

Tse et al (2002) highlighted how customers translate cues from a restaurant in a number of ways. In their example, if a restaurant appears busy, this brings about positive behaviours and interpretations from potential customers. Therefore, understanding what dining out customer expectations are is important so that the right messages can be sent to match what customers are concerned about.

The work of Clark and Wood (1998) concluded that it is the tangible aspects that actually influence customers' choice when deciding where to dine. However, this conflicts with the work of Auty (1992); Bitner (1992) and Millliman (1986) who all
believe that for customers the intangible is just as important. Zellner's (2007) study further added to this conflict of ideas by remarking that it was how the food is presented and in what context the food is consumed that ultimately affects customers' decisions as to whether the food could be classed as 'good'. There is a forward/backward link between expectations and dining out because as suggested by Schmalensee (1976) customers generate expectations due to prior observations. Therefore, what occurs within a dining out establishment will provide development material for future expectations.

Expectations feature in hospitality research to mainly investigate customer satisfaction. The expectation criterion within such studies provides the measure to produce the 'gap' between what was expected and what was experienced. Walker (1995) recognised that service is actually something that is considered prior to the meal and calls this a 'search quality'. However, again this work forms part of the understanding of satisfaction and the experience of service. What can be established from this study's findings is that service is a reoccurring variable amongst FG1, FG2 and FG3 and in each case is considered relatively highly.

Despite the rise of the 'experience economy' (Pine and Gilmore, 1999) and the work that has been conducted into disconfirmation, there is still a lack of parallels between variables this research has created and existing variables. From comparisons with the previous research, this research begins to infer that there are variables that are considered by the customer prior to the dining out experience. However, in terms of judging satisfaction, or the experience and deciding whether, or not, to dine again at an establishment, perhaps there are a different set of reflective variables that need to be experienced once in the venue? To further this observation, in the work of Sommer and

Steel (1997) and Pettinger, Holdsworth and Gerber (2004), the impact of dining in groups and with others is considered and it is shown that there are some negative aspects experienced by customers who dine alone. If these issues were expected beforehand then it would be unlikely customers would dine alone in the first place. Additionally, if customers could not rationalise and attribute such anxieties post the meal experience it would be unlikely that they would ever dine out again. Therefore, this seems to call for some work into whether there are changes in what is measured pre the experience (expectations), during the experience and post the meal.

In Dube and Cantins (2000) work they recognised that there has to be an 'appeal' set out by the restaurant in terms of making customers feel positive about features of the restaurant. This work therefore recognised that there were variables that customers were interested in prior to actually dining within an establishment. Looking at all the responses regarding expectations for this study there have been no variables collected from the pilot study or other authors' past studies that indicated expectations are ever linked to a negative aspect, that is, expecting the possibility of something negative occurring. Therefore, it could be judged that dining out expectations are positive functions and negative aspects are only cited during, or post experience. Murray (1991) highlights the issue of negativity in the study regarding 'risk' and restaurants trying to resolve such feelings. Therefore, such studies along with those of disconfirmation do highlight that negative situations can occur for restaurant customers, however, it would appear from this study and data from past studies that, when planning to dine out, negative variables are not part of the expectation criteria.

Myers and Alport's (1968) work demonstrated that decisions were made on attributes that were not generally expected and this study would agree with that assertion. For
example, food is not at the top of any of the factor groups expectations and possibly this is related to the findings of Myers and Alport's work, as food would be considered to be an expected variable of the experience. Swan and Combs (1976) looked at clothing within their study, not a relevant hospitality aspect, however, they provided information that this study concurs with, that expectations are not always the variables that customers judge the experience on reflectively. Their findings suggested that instrumental performance, as opposed to expectation criteria of a recently purchased car must be fulfilled in order to achieve customer satisfaction. This contradicts all the authors who created models to look at satisfaction and disconfirmation because what Swan and Combs (1976) and Myers and Alport's (1968) work suggests is that expectation variables are in place to induce the uptake, however, a different set of variables are formed during the experience which are judged for perception/satisfaction. Therefore, it has to be questioned how past hospitality research, through calculating the difference between the same two sets of variables, has been able to accurately judge satisfaction, or the propensity to return? Furthermore, as Macht, et al, in their 2005 study showed, physiological factors impacted upon appeal. However, due to the individual nature of physiological factors, much work into disconfirmation does not include, or even consider these important variables. Cardello (1995) suggested that food acceptability is how best to measure customer satisfaction, however, there is no way to interpret individual tastes and preferences. The closest work that explains this is Weber, King and Meiselman's (2004) research, that does take account of individual opinions and recommends providing a good menu variety in order to accommodate a range of requirements.

### 7.7.1 Section Summary - Aim 5: To evaluate what influences customer expectations of dining out.

The purpose of Aim 5 was to understand the influence that a person's life circumstances have on expectations when dining out. Although socio-economic factors will impact upon behaviours, to date, little hospitality research exists that is related to this area. Many of the outcomes from the participant responses indicated that recognised socioeconomic factors did impact upon their expectations and much of these data formed the basis of the subsequently developed practical typology and theoretical model (see section 7.8).

There were also other important outcomes related to Aim 5 that stemmed from the combination of information from the literature review and data generated by this study. Expectation research within a hospitality context is usually related to disconfirmation work. However, this study, with the support of literature, questioned if customer expectations are the same as the variables used to view the dining experience as it occurs, or as the variables used to reflect upon the event. This enquiry has had the subsequent effect of questioning much of the disconfirmation research that has been completed previously.

This study accomplished Aim 5, and although it was not the intention to question earlier disconfirmation research, by investigating expectations, important questions have consequently been raised about the context in which expectations have been used in preceding hospitality research.

### 7.8 Aim 6-To make an original contribution to knowledge through the development of the study findings in the context of customer expectations of the dining out experience.

Develop a practical typology in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics. Develop a theoretical model in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics.

Examining the dining out market, one of the main, if not the main, indicator of restaurant type, is conveyed by price. Price can be a method for segmenting the market (Carter, 2011) and is well understood by customers. Therefore, to establish expectations purely based on price and then further narrowed down by socio-economic factors is logically a coherent way to segment customers, view dining out options, determine expectations and develop this emerging study area.

This research undertook factor analysis as the main statistical enquiry method along with subsequent variance and association tests to clarify and classify customer groups based on dining out expectations and sectioned by meal cost. The four categories determined by the statistical tests were then distinguished further through the inclusion of socio-economic variables and behavioural traits. From the data generated the four established customer groups (factor groups) were applied to both a practical typology, as well as, a theoretical model.

### 7.8.1 Practical Typology

The practical context from which this research originates has not eluded the research purpose of the study. Therefore, a practical taxonomy (Table 7-7), which assists in explaining the various customer groups formed as a result of the research and highlights
the differentiation between the customer groups and their predicted actions, has been developed. The practical model allows for interpretation and identification of the sample of customers, their requirements and behaviours for application and implementation by the industry.

The questionnaire response groups that have been created through factor analysis and used within the practical typology table are not unusual in that they begin to reflect cross-sections of society. The difference between this typology and previous analyses is that the practical typology in this study has enabled customer groups to be sectioned with principal attributes and behaviours emerging from these four groups. Additionally, what can also be identified from the practical typology is that each of the developed customer groups has definitive requirements in terms of expectations when dining out.

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What can be ascertained from the practical typology (Table 7-7) are the four new customer groups and their behaviours in relation to their dining out choices along with certain socio-economic factors. The groups' socio-economic characteristics assist in providing further insight into the group, which in turn, also makes the dining out behaviours more understandable. As can be seen from the constituents of the factor groups in the practical typology, undertaking statistical work on the data gathered was an important step to understanding the groups as, it would otherwise not be possible, to accurately assume the combinations of variables that the practical typology displays.

Although customer behaviour models established through previous research exist, as can be seen in section 1.2 many of these are generic models as is often highlighted through their complexity, for example, the Engel-Kollat-Blackwell Model of Customer

Behaviour. Furthermore, some of the existing models have been established for different purposes, or research contexts, such as, motivation, even though they can be found within relevant customer behaviour literature. Therefore, this study has developed a theoretical model (see Figure 7-1) that reflects customer groups resulting from a survey received by 34,471 individuals in reference to dining out. Moreover, in order to add certainty and meaningfulness to the theoretical model, the characteristics and patterns of the customer groups, as recognised by this research, have also been combined within the model.

### 7.8.2 Theoretical Model

Creating a theoretical model is an important interpretation tool as it provides a framework of overarching groups within which large numbers of activities, behaviours and characteristics can be interpreted in a simplified manner. Furthermore, it is possible to analyse the groups and understand how they interrelate and potential patterns of group member's future behaviours. This study has completed a factor analysis on the respondents from the quantitative study who dined outside the home. With the additional statistical analysis tests, that is, T-tests, correlation and ANOVA tests completed, it has been possible to segment the respondents.

As discussed in section 5.5, the expectation variables from the questionnaire that were amalgamated to develop the four customer groups were subject to a number of tests and considerations during the factor group formation process. In-line with Costello and Osborne's (2005) recommendations, no variables measuring below .5 were included within the factor groups, no variables were shared between factor groups and preferably no groups should constitute of less than five variables.

Subsequently to ensure that the resulting factor groups contained "solid factors" (Costello and Osborne, 2005: 5) the following variables were removed before the factor groupings were finalised.

- Inexpensive variables removed: Cost and location.
- Mid-priced variables removed: Non-standardised food, beverages and recognition.
- Expensive variables removed: Location, cost and recognition.

The consequence of the factor analysis process is that the variables removed, for purposes of creating accurate factor groups, are not included within the final groups identified in the theoretical model.

From the study data, four groups of customers emerged from the analysis based on their expectations of dining out at differently costing restaurants. These four groups have been tabulated (see Figure 6-1) to highlight the patterns of expectations, social situations and preferences. Until now the analytical work has either discussed practical outcomes from the study (see the practical typology), that is, different customer types and their expectations and how these relate to existing literature and models. What differentiates the practical typology and this theoretical model section is that it aims to discuss the factor groups beyond simple interpretation. The ensuing sections of this chapter will consider the customer groups in relation to the theoretical model, insights generated by the model and the different pathways, or movements that can be applied to each of the groups, along with the implications of their positioning.

Identifying customer groups emerging from the study and combining them with statistical analysis allows for each group to be recognised within the customer sphere and also for identification of their distinguishing features. The theoretical model (Figure 7-1) will assist with understanding the groups and their different requirements.

These groups have, for the purposes of the theoretical model, been termed Fledglings (FG4), Occupied (FG2), Frenetic (FG3) and Established (FG1). The theoretical model (Figure 7-1) is replicated at the end of sections 7.8.3, 7.8.4, 7.8.5 and 7.8.6 for ease of reference.

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### 7.8.3 Fledglings

The group was assigned the name Fledglings due to the main age range of those who answered the questionnaire. In comparison to the other groups the Fledglings are the youngest group identified. They come from mixed aged households and as there are 23+ living within the household it would seem that the Fledglings are often part of a traditional family set up and are potentially the 'children' within the household. This group, of all the groups identified, was the 'anomaly' group as their main concerns when dining out were just four variables, that is, eating with family and groups across all three price brackets of restaurants and the location when dining in mid-priced restaurants. As well as having a very narrow list of expectations, this group was the group that ate out the least and has little interest in food whether it is cooking at home, or food interests, such as, food events outside the home.

This group fit into a wide salary bracket that can be summarised as them being 'midearners', however, this is annual household income which therefore could also potentially be/include parental salary. It is worth recognising that parents, or extended family of Fledglings are likely to fit into a different group as identified by the theoretical model. The main occupations of Fledglings fit into the lower bands as set out by the UK Government (The Office for National Statistics, 2000).

The group had some likes with regard to hobbies and one in particular reflects the age range of this group, that is, computer games which are often associated with the ' S Generation' (Potter, 2012). Interestingly, Fledglings had an extensive list of activities that they were significantly unlikely to be engaged in. Possibly these can be assumed to either be activities of an older group of people (especially, as some of the activities do feature in the other groups). They were the only group to take a predominantly

ABC1C2 demographically classified paper and were unlikely to read any papers that fit into the AB category (NMA, 2012). This group also watched a large amount of television with the range being between $15-32+$ hours per week. The model indicates that Fledglings can move forward in one of two ways; based on the age brackets Fledglings move either to the Occupied group or to the Frenetic group.

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### 7.8.4 Occupied

Respondents of the questionnaire who have been identified as belonging to the Occupied group do not start off in this group, they will have either moved from the Fledgling group or from the Frenetic group. Fledglings, once they gain in years, will move to the Occupied group and through moving up the career ladder, or potentially going through life changes, such as divorce, Frenetic group members can also move into the Occupied group. What distinguishes the Occupied group is the impact that their jobs have on their lives. These questionnaire respondents are high earners, people
whose jobs fit into predominantly the higher occupation classification bands (The Office for National Statistics, 2005c) and they are unlikely to have more than one other person living in the household. This group reflects its earning potential in their response as they were most concerned with expectations for expensive restaurants and their assumptions of meal costs for an inexpensive, mid-priced and expensive meal were some of the highest suggested. The Occupied groups main reason for eating out was identified as the social aspect and it can be seen that in many ways they have become the opposite to the Fledglings as they enjoy many of the activities that Fledglings were unlikely to do, such as, cooking, travelling, reading and wine appreciation. Their television viewing hours are dramatically different from Fledglings and are the lowest of all the groups at just 8-14 hours per week. They also read the Telegraph which has a recognised readership of mainly AB and $\mathrm{ABC1}$ adults (NMA, 2012). Respondents within the Occupied group could potentially move in two ways as their circumstances change; as they age they may move to the Established group, or they could move to the Frenetic group if children become significant within the household. With regard to using the term 'significant' this indicates that children have changed the nature of the household, for example, by reducing the household disposable income.

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### 7.8.5 Frenetic

There is assimilation between the Occupied and Frenetic group members due to similarities, such as, their likely activities and the style of newspaper that they read (both The Daily Mail and The Times are extensively read by AB and ABC population categories (NMA, 2012). Additionally, there is some alignment with potential jobs held by those in both the Frenetic and Occupied groups. They also both eat out extensively, more than those in the other groups. The main difference between the questionnaire respondents who are in the Occupied and Frenetic groups is that children appear to be present more within the Frenetic group and the groups salaries are lower, possibly due to one parent remaining at home to look after the child/children. Nevertheless, this group expected to pay at the higher end for each price category of meal, whether it was inexpensive, expensive, or mid-priced, although their main concern with regard to expectations were those centred around mid-priced dining establishments. The study's findings suggest that those who belong to the Frenetic group can move one of two
ways; the natural progression route would be to move onto the Established group, although it would appear that some people who, upon reaching retirement age, remain in the Frenetic group. However, if a life altering event occurred, then it is possible to move back into the Occupied group.

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### 7.8.6 Established

This is the last group of respondents identified and those from Occupied and those who do not stay in the Frenetic group, once they are older, could transfer into the Established group. This group consists of those aged 45 and above and there is a meaningful percentage of retired people in this category. The main difference between this group and the Frenetic group is that the impacts of children do not seem to be a feature. Otherwise, there are a lot of similarities between this and the other groups. Although Established is a predominantly older aged group, a large proportion of the
group still work and the jobs are similar to those of Frenetics. The income starts the same as with the Frenetic group although does go a little higher, they do not eat out as much as the Frenetic, or Occupied groups and their food interests are not as pronounced from the responses. Once people move into the Established group, the study suggests, it is unlikely that they will move unless they become part of a family situation again when, potentially they could move back into the Frenetic group. Many enjoyed activities of the group were leisurely, such as fishing, gardening and cruise holidays and the amount of television watched would also infer that people in this group do not have as many commitments and have more time to pursue activities and leisure time. Even though this group may have average earnings of all of the groups, this is not reflected in dining out, as this group are most concerned with expectations relating to inexpensive dining out establishments and cite 'budget' as a factor for consideration when dining away from the home.

Figure (Text/Chart/Diagram/Image etc.) has been removed due to Copyright restrictions.

### 7.8.7 Theoretical Model Further Considerations

Looking at the theoretical model (Figure 7-1) it can be seen how the respondents of the questionnaire interrelate and can move groups depending on influencing factors, predominately: age, family situation and financial means. However, it is recognised that the model cannot account for every point in people's lives and so an overarching theory, that is Maslow's Hierarchy of Needs (King, 2009), has also been incorporated into the model. This overlays the model and provides insight into what may happen to customers in circumstances that this study has not been able to account for, such as, unemployment, or scenarios of other unfortunate happenings. At the other end of the spectrum, where people may have excessive amounts of money and spare time, but are unlikely to be significant in numbers to be captured by this study, Maslow's Hierarchy of Needs indicates where such customers could be placed in the model. The theoretical model indicates the identified groups and their defining elements, such as, income and frequency of dining out and the positioning of the four groups within Maslow's Hierarchy of Needs parameters reflects these aspects. From the model it can be identified where people who are in need and lack ability, or motivation to partake in dining out may be placed. At the other end of the scale of needs, self-actualisation occurs and a person positioned in this region of the model would account for customers who frequent very exclusive and/or expensive restaurants, due to being able to satisfy altruistic needs.

### 7.8.8 Personality Traits

Within the questions used to generate the data there were four questions included which were designed to produce information on the respondents' personality (as discussed within the Methodology Chapter) and based on work conducted by John and Srivastava
(1999) and Gosling, Rentfrow and Swann (2003). Understanding personality patterns through the application of the statistical tests to the factor groups should have alluded to behaviour traits of each of the customer groups. However, the majority of the responses were significantly mixed. The only customer group that could have any patterns of behaviour drawn from the results was the Occupied group. This group showed a propensity for openness to experiences and extraversion. Gosling et al (2003: 30) describe extravert characteristics as ones that imply "an energetic approach to the material world and include traits such as sociability, activity, assertiveness and positive emotionality". Whereas, openness to experience demonstrates that a person's mental and experiential life are extensive. This outcome can be verified by the responses provided by the Occupied group as one of the group's main reasons to dine away from the home was the social aspect. Although the personality trait questions have been meaningful and correlated with other responses for the Occupied group, for the other customer groups there were no patterns that could be statistically rationalised.

### 7.8.9 Section Summary - Aim 6: To make an original contribution to knowledge through the development of the study findings in the context of customer expectations of the dining out experience.

Although within the restaurant industry it is recognised that varying customer groups exist, no previous research has investigated who is choosing where to dine, what their requirements are and what has influenced these expectations. From an industry relevant perspective an initial practical typology has been developed from Delicious Magazine esubscriber responses. The contents of the practical typology have been maintained at a level that is straightforward and that evidently relates to aspects of dining out that could with further validation be important for the industry. Both the practical typology and the theoretical model contain information from the quantitative survey responses that
were subsequently statistically analysed, the complete set of outcomes can be found in Figure 6-1 and Appendix 4.

To be able to define Fledglings, Occupied, Frenetic and Established customer groups based on the study's questionnaire responses is an important step to recognising and understanding customers before they have even frequented a restaurant. Furthermore, these customers can be specifically targeted by appealing to their requirements in order for businesses to generate custom. Finally, once the customers have been encouraged to dine at an establishment, if expectations can be met, or even exceeded, then it is predicted this would encourage repeat patronage. The aspect of customers returning to dine on more than one occasion is fundamental in the success of the majority of hospitality food businesses.

### 7.9 Discussion Chapter Summary

This chapter documents how the outcomes from the study have been considered and aligned with the aims and objectives. By endeavouring to make an original contribution to knowledge and examine an emerging study area, four customer groups, based on the Delicious Magazine questionnaire responses, have been defined that each hold different expectations of dining out. The evidence demonstrates how socio-economic factors, such as, income, age and others in the household do alter expectations and requirements when dining out and that expectations can be aligned with differently costing dining out establishments. It also explains how socio-economic characteristics affects more than just expectations, it also influences what people will pay for their food, where they like to dine and how often they will dine outside the home.

This research has looked at what Delicious Magazine e-subscribers dining out expectations are and demonstrated how socio-economic characteristics impact upon the outcomes. However, the nature of the study was wider than only just finding out about expectations, it has also created initial practical, as well as theoretical outputs, through understanding restaurant pricing from a customer perspective. Defining what expectations are for the differently identified customer groups, as well as, additional behaviours and traits have also been established. This study has also raised questions with regard to how this work interrelates with existing research that has looked into customer behaviour and expectations. Considering these factors the theoretical model (Figure 7-1) was created to build upon the outputs established for the practical typology.

### 7.9.1 Further Contributions to Knowledge

The work conducted for this study and the outcomes that duly arose have questioned, agreed and extended the current understanding of dining out customers (as segmented groups) with regard to their specific expectations and general behaviours and preferences. Overall, this work has added to the existing research by providing an understanding into an area that has previously not been treated as a separate entity, or where expectation work has been carried out there has been no recognition of customers being part of different customer cohorts. Many of the idiosyncrasies that have been recognised are the result of the impact of socio-economic circumstances, which again, have not been researched in this specific context previously.

From the questionnaire results and analytical work completed four customer groups have been established and to these groups, expectations, behaviours, requirements and influences have been founded. Before this study, research relating to dining out had not looked at what influences customers, or been able to theorise about different customer
groups, build a picture of the different groups, or generate understanding of how customers' can transit between groups. The outcomes from the study provide both insights into customers as well as practical implications for the industry. Until now the main focus of practical research within this area has centred on satisfaction and expectations have been a part of the equation for understanding perception.

Along with building on existing research, this study has had another outcome and that is to raise the question about existing customer satisfaction research. Much of the research relating to this area that has been conducted to date makes an inference that expectation variables are the same as the variables that people use to determine their dining out experience reflectively.

Building a picture of customer consumption during the current economic downturn (Flanders, 2012) has provided both a focus for the research, with considerations for the importance of the practical outputs, as well as, generating a picture of customer behaviours both with regard to dining out intentions, expectations and general lifestyle factors. This reflection of customers was made possible through the use of an extensive data collection exercise which differed from much of the existing research in that it was a large scale study that collected data from across the UK to try to create a relevant interpretation.

The concluding chapter will further evaluate how this research and its findings can benefit practitioners who are working within the realms of both customer behaviour and expectation research. Furthermore, although the practical outputs have been discussed it is necessary to identify routes and means by which the information can reach those working within the industry, so that the facts can influence considerations with regard to
customer expectations and different customer groups dining out. The final part of the Conclusion Chapter will assess the study's strengths and weaknesses along with how the outcomes of the study, and questions raised by the study, could be developed further by researchers.

## 8 Conclusion

The main purpose of this thesis was to gain insight into customer expectations of dining out. To make this achievable and applicable to the industry, dining out was categorised by meal price, (defined as, inexpensive, mid-priced and expensive). What has been considered by previous research, in relation to customer expectations, has mainly focussed on satisfaction, as opposed to many of the other factors of the UK dining out market that link with expectations, such as, customer choice. As much of the research for this study focussed around price, it was rational to consider how customers' socioeconomic characteristics influenced and impacted upon their expectations. This research also noted evidence of previously concluded hospitality primary research that was based on low response rates, or that had judgments based upon secondary data.

This thesis has considered the limitations of previous research and in many aspects used the existing limitations of the research area as a framework to inform the present study. This study collected data from a large cohort, sourced from a questionnaire distributed through the Delicious Magazine website, and developed knowledge and understanding to add to the realm of customer behaviour research. From the data generated, statistical analysis has been completed and four customer groups with varying requirements and behaviours have been, in both practical and theoretical terms, defined. This study has been able to demonstrate that merging these key areas provided important findings that contribute to existing academic knowledge and was able to produce practical implications. As the study was led from the outset by existing literature and the restaurant market, the practical typology developed considered the importance of such information to the industry. Whereas, the theoretical model that has been developed is the outcome that has most potential to assist prospective academic enquiry in this area. As this research is the foundation of enquiry into the study area there is plenty of
opportunity for future developments, which will be discussed later in this chapter.
Reviewing the aims and objectives (Table 8-1) this thesis has demonstrated how each has been the origin for an aspect of the research. Chapters 4, 5, 6, 7 and this concluding chapter exhibit how each of the six aims and six objectives have been achieved.

## Study Aims and Objectives

Aim 1 - To analyse and synthesise the body of knowledge related to customer expectations of dining out.

Aim 2 - To undertake a substantial data collection exercise to enable an evaluation of customer expectations of dining out.

Aim 3 - To clarify and derive meal costs from a customer perspective.
Evaluate what customers determine as the cost brackets for inexpensive, midpriced and expensive restaurants based on meal cost.

Aim 4-To assess how customer expectations vary between different restaurant types.
Classify customer expectations of different restaurants as determined by cost categories.

Aim 5-To evaluate what influences customer expectations of dining out. Analyse the influence of socio-economic characteristics on customer expectations.
Assess the extent to which expectations are consistent amongst the different socio-economic groups.

Aim 6-To make an original contribution to knowledge through the development of the study findings in the context of customer expectations of the dining out experience.
Develop a practical typology in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics. Develop a theoretical model in relation to restaurant customer expectations that combines the factors of meal cost and socio-economic characteristics.
Table 8-1: Study Aims and Objectives

### 8.1 Original Contribution to Knowledge - Practical Typology

A practical application of the outcomes was considered to be an important element of the research due to the industry having little guidance about customer groups and behaviours. Although it is generally accepted that many hospitality businesses will conduct their own research to understand their particular customer base, little collective knowledge exists of such information. Furthermore, much of what is used will not have been statistically tested, or combined with additional important variables that impact upon customers, such as, family situation, or behaviours and choices. With the recognised increase in demand for dining outside the home (Mintel, 2004) and the realistic continuation of this trend, it is important to understand what drives customers to make the decisions that they do, and what their expectations are of the dining out experience.

The characteristics that are present within the practical typology and the specific requirements in relation to expectations for each customer group are not evident within the theoretical model. Nevertheless, it was recognised that certain factors within a typology need disseminating and this was a further rationale behind developing both the practical typology and the theoretical model. It is expected that the detail of the practical typology will assist with the application of the information. Whereas, the theoretical model can be interpreted, used for comparative purposes, or applied as a template to further research scenarios. Customer models exist (as explored in section 1.2), however, a specific practical typology within the specified research area has not been evident within the existing literature. Through the accumulation and analysis of the data the practical typology has been an output (Table 7-1) that has been a contributor in attaining Aims 3 to 6 and Objectives a to e.

With regard to the commercial interpretation of the practical typology, the research has demonstrated the variables that were important to the different customer groups. Therefore, if a restaurant business were aligning their establishment with a customer group, for example, the Frenetic group, providing aspects that would deliver for children and groups would be a priority. In some instances the practical typology infers more specific recommendations, such as, 'non-standardised food'. However, largely, the practical typology provides an overview of the four different customer groups and general conditions to be met to fulfil the expectations of each of the customer groups. The practical typology is not exceptionally specific beyond identifying the relevant variables as it is expected a hospitality business would know what conditions and actions the named variable encompassed.

### 8.2 Original Contribution to Knowledge - Theoretical Model

This study has illustrated that dining out customers belong to defined customer groups and although there is a wide market, in terms of restaurant choice, as the results of this study suggest, each distinct group has a set of expectations and requirements to be fulfilled. This ultimately determines the restaurant category that the customer will choose to frequent. The theoretical model provides an overview and has been created through the generation and combination of outcomes as revealed by the data analysis.

Through the amalgamation of socio-economic variables that influence customer's circumstances and dining out expectations, in relation to cost, it is possible to create initial profiles of customer groups. Through transferring the interpreted data to a model, an overview can be taken, where it is possible to follow customers throughout their life stages and understand how variables influence a person to move from one customer
group to another. Reflecting upon what the model proposes some people may transit between several of the customer groups, whereas others may belong to each of the groups at some point in their lives. There is also the flexibility for customers to move back into groups that they previously frequented.

Although earlier customer behaviour models exist (see section 1.2) this study has developed an alternative model, by which to view the dining out public. The specifics of the model, in comparison to existing models, and its uniqueness, were the driving forces behind the development of the model. The theoretical model (Figure 7-1) that was defined from the study's research outputs illustrates where the four newly defined customer groups are positioned in relation to each other and demonstrates how socioeconomic influences and subsequent dining out expectations place distance between certain groups, such as, Fledglings and Frenetic. However, some similarities, that at first may not be obvious, bring other customer groups closer together, as can be seen between Fledglings and Established. This study did not define if there was a specific driving factor, or a key aspect that determined expectations from the statistical analysis conducted. Nevertheless, it can be seen that the four dining out customer groups can be placed within the theoretical model in relation to salary, frequency of dining out and food interests. Statistically, the variables have been determined for each group, which created a reflective picture of circumstances and rationalises the placement of each group in relation to the variables. Ultimately this created the configuration of the groups and demonstrated their relativity to each other.

It has been established that through a person's life their requirements, interests and behaviours will change and the theoretical model shows the course of direction that customers can take between groups. As it is a theoretical model, further details, such as,
reasons for movement were not incorporated into the model, but the indicated pathways demonstrate potential movements. Customers will interchange between groups throughout their lives, although the model also exhibits visually, that not all groups have to be visited by every person. As movement is indicated between groups and is set against measures of salary, visit frequency and food interests it is intended for this to make the justification for customer movements clear.

The theoretical model suggests patterns of movements, who the customer groups may be and measures (salary, dining out frequency and food interests). It is therefore similar to the well-recognised customer behaviour models that are referred to by hospitality research (see section 1.2). Indeed, the concept of interpretation was influenced by such models for use within this study's theoretical model. However, the theoretical model presented here contributes to knowledge, (Aim 6) through its original context and the intended application for use within hospitality research.

### 8.3 Study Conclusions

The following sections do not describe again the specific customer groups as ascertained by this study, as this information is contained within Chapter 7. What follows here, are core themes that underpin the outcomes specifically from the data collected from delicious magazines e-subscribers responses. The information also demonstrates the association between this study and its relevance to the industry, which was a consideration for the research, from the outset. Nevertheless, it is necessary to recognise that the research sample was generated from a specific target audience and subsequently the data cannot be generalised beyond the sample to reflect the expectations and behaviours of the whole of the UK population.

Customers will identify with one of four broad groups of restaurant patrons. From the research undertaken, four customer groups have been identified: Fledglings, Frenetic, Established and Occupied. It has been possible to establish that the majority of customers will fit into one of these groups and will subsequently display certain identified characteristics of this group. These include specific family requirements, employment situation, life stage and personal expectations. What has also been identified is that restaurant customers will move between groups dependent upon their changing personal circumstances. Understanding 'movement' motivation has yet to be identified but, taking an overview, a distinction between the groups is demonstrable.

Customers do not have an endless list of expectations that the dining out experience must achieve. Customers dine out as individuals and trying to manage their needs must often appear complex to restaurateurs. However, what this study has demonstrated, in particular the practical typology, is that there are overarching requirements that need to be considered for each identified customer group. Moreover, where a restaurant may have a convergence of customer groups, what can be identified from the list of expectations is that a number of variables are applicable to more than one group. This does not infer that these are the only variables that need to be addressed, however, if all of the significant criteria can be met then, this would be a serious step in meeting customer expectations and potentially achieving customer loyalty and repeat custom.

There are common expectations across all customer groups but no expectations that are consistently important across all of the customer groups. Although it has been recognised that there is not an endless list of customer requirements and some
expectations are shared by customer groups, there is not a list of expectations that is of importance and generic across all the customer groups. This promotes the significance of the restaurant industry understanding specific customer bases. Recognising that there is no single list of crucial criteria for all customers demonstrates further the flaws in past research that has looked at dining out customers as a single group and assumed they all have the same shared requirements.

## A restaurant failing to meet customer expectations will not induce a customer to

 change their restaurant choice category. From the research conducted it is evident that the respondents' corresponded to four customer groups. Due to the size of the restaurant industry there will be many restaurants that meet the needs of a particular customer group. Therefore, if customer expectations are not met, it is predicted that, the likelihood of repeat custom is reduced. Instead, the customers are more likely to frequent a competitor establishment, as they are unlikely to deviate from the customer group that they most align with.Customers do distinguish between different restaurant categories. As identified by this study's findings customers and customer groups have particular requirements that need to be met whether this is, for example, the level of spend, or the need to accommodate children. Although patterns of behaviour for one-off occasions, such as, a celebratory meal, have yet to be established, overall, it can be seen that customers choose restaurants that will provide for their requirements. Therefore, it has been found by this study that customers can assess and distinguish between the understood, or expected, merits and nuances of restaurants when choosing where to dine.

Life stages and socio-economic factors determine which group customers will belong to. The customer groups for restaurant patrons have been developed through the inclusion of variables that, in the main, have not been considered by past research. The importance of not considering the population as one un-segmented group is demonstrated by this study through the identified variables that contribute to each of the customer group's formation. What has become evident is that aspects, such as, life stage and socio-economic characteristics are core elements that have considerable meaning to the definition of each of the customer groups.

### 8.4 Application of Research

The work within this study has been founded on aims and objectives that have, in most instances, been generated, or influenced by existing relevant literature. Therefore, the academic outcomes that can provide the foundations for further study should be clearly evident. The practical typology has only been discussed so far in terms of direct consideration for customers frequenting a restaurant. However, with all of the data generated the practical typology actually provides a much wider resource.

Initially interpreting the practical typology would allow a restaurant to put in place measures to ensure that the relevant expectations can be met. This is not only likely to ensure customers will be satisfied with their dining out experience but implementing the variables could potentially attract customers. Furthermore, recognising and applying certain variables will focus the restaurant business on who their target market consists of, as well as, indicating potential competitors in the sector. With the restaurant market growing steadily competition for customers can be fierce and attracting paying customers can be a determining factor as to whether a business survives, or fails.

Therefore, advertising is a key avenue to generate customer interest and the practical typology is based on socio-economic factors, behaviours and interests that could infer how and where to target advertising to a specific customer group. As such, the results of this thesis could be used for application to advertising design to target specific customer types. Additionally, new businesses looking to establish a restaurant could use the study findings to determine their future market, and to inform their decision on whether the opportunity exists in the marketplace for a particular restaurant type.

Considerations have been made with regard to communicating the findings of this study to industry as, although hospitality research outputs have benefits to industry, it is recognised that often the accessibility of the information is what interrupts the application of the findings in a practical sense. This study's questionnaire was distributed through Delicious Magazine's website and so an alliance between the study and a non-academic resource has already been created. It is intended to carry out further work for non-academic channels by producing articles for trade magazines about the study so that industry professionals can disseminate the findings. Furthermore it is planned to contribute, via the inclusion of both the practical typology and the theoretical model, to a hospitality textbook. Potentially the textbook could be used by those who are in the learning stages of understanding the hospitality industry and the information could form part of what underpins their actions once they are established in the workplace.

The intended main purpose for the theoretical model is for inclusion within future academic articles relating to this study's combined research areas. Initially, it will form the basis for distributing these research findings and potentially in the future provide the foundation of work by other researchers. The model will also support future research
relating to a series of comments and conclusions that have emerged from this work regarding previous hospitality satisfaction studies and their limited view of customer expectations.

### 8.5 Limitations

A limitation of both the theoretical model and the practical typology is that the study did not measure customer expectations or behaviours during transition periods. Therefore, the theoretical model takes account of unknown behaviours by not assuming customer behaviours during periods of movement from one customer group to another. Looking at the theoretical model and making general assumptions about the cohort included in the study, it was recognised that the findings would be unlikely to account for anomaly groups. That is, customer groups at either end of the dining out spectrum. After consulting a number of established models, Maslow's Hierarchy of Needs (King, 2009), provided the formulation as to where extremes could be placed within the theoretical model and the likely characteristics and effects that could be applied to each of these groups. In such circumstances, it is expected that, the customer's situation is very different from what has been determined in general by this study. In the theoretical model, examples of considered scenarios, which would be determined by Maslow's Hierarchy of Needs sections, could be an absence of motivation to dine out because of a lack of available funds. At the opposite end of the spectrum, expectations could be extreme due to a very significant event, or high amounts being paid for dining experiences.

Both the practical typology and theoretical model include information that is deemed to be the most significant from the statistical analysis. However, as is highlighted by

Appendix 4 the discussed outcomes were not the only ones produced by the data. Indeed, other outputs were relevant, but not as important, as the elements that have been included within the practical typology and the theoretical model. Further information that has been produced, but was not deemed to be significant, nevertheless demonstrates that although the practical typology and theoretical model provide accurate generalisations for the cohort they cannot account for everyone. Additionally, it is necessary to again acknowledge that the sample used for the study was generated from a target group and subsequently the data and outcomes cannot be generalised to reflect the expectations, situations and behaviours of the whole of the UK population.

Another limitation is that clarification of what happens to customers who have a poor dining out experience was not achieved. It is assumed that customers who experience a negative incident will not leave their customer group. However, currently considered a limitation, this aspect is a potential course for further investigation. The perceived route would be to assess if negative experiences kept occurring for customers when dining out, what would be their subsequent decisions regarding future dining out choices.

### 8.6 Further Research Direction

From the outset of the study and the initial review of the literature, it is clear that the combination of aspects looked at by this study have not featured greatly in previous research outputs. Therefore this study has provided consequential outputs, but at the same time, raised additional questions and issues that could be explored through further investigations. Forthcoming studies could develop this research and expand the context to determine more specific details, or potentially widen the scope of the research, whilst still underpinning the research with this investigations founding concepts.

Two clear recommendations for future research would be to test both the practical typology and the theoretical model. Although both outputs demonstrate the findings of this study, neither has formed the foundation of a research study to validate the accuracy of their contents. Confirmation of the outputs would provide substantiated findings that would be more difficult to reasonably challenge and would subsequently reinforce the original study.

Additional logical next stages for the continuation of the study theme would be to look at the four customer groups and determine further information. For example, are there variables within the factor groups that underpin the formation, whilst other variables have a lesser influence, such as, family being more significant in defining the group than spend?

An important aspect that could provide scope for additional investigative work is what happens to customer expectations and which customer group do people fit into when a significant, but temporary variable, in their lives alters, such as, a change in employment, an inheritance, or a special occasion. A further extension of this theme would be to understand customer expectations, choices and so on when the customers are transiting between the four identified customer groups.

What is also interesting to consider for future research, and could have important applicable outputs for the industry, is what happens to customer expectations when someone dines outside their projected customer group? To gain understanding of the outcomes of scenarios, that are not everyday occurrences, the practical typology and theoretical model could be considered along with additional potential circumstances.

For example, if there was a novelty factor involved in the dining out experience, how does this impact upon the customer? This could be considered as a 'temporary change' of customer group and further research could decipher if, under such circumstances, are customer expectations met, or perhaps even exceeded? Other scenarios that could be investigated are the outcome on expectations of removing the decision making or payment aspects, as when a person is in a 'guest role'. Additionally, expectations may be affected by influences other than the restaurant itself. This could be an outcome of putting emphasis on an event, such as a special occasion, or visiting a restaurant in a location that has a reputation, such as, perceptions of a dynamic city, such as, London.

Aim 3, Objective a. was to understand how customers perceived cost brackets for meals at different price points: inexpensive, mid-priced and expensive. Therefore, measuring the accuracy of the meal costs, as generated by this study, could be undertaken to ensure that the amounts represent either broader, or more specific cohorts.

The cohort for the study has been discussed in the Research Design and Methodology Chapters, however, further investigations could re-administer the questionnaire to a wider and more diverse participant group, although the specified number of participants required should still fall within data saturation guidelines (Mack, Woodsong, McQueen and Guest, 2005). However, it is acknowledged that this may be an ambitious further research recommendation as most studies enlist far lower participant numbers than even this original research, due to manageability of the study.

Over time, it is recognised that trends relating to people change and develop. Furthermore, the business environment also adapts. Subsequently, keeping the findings
up to date by re-conducting the questionnaire and modifying the questions, as necessary, is an important action if the research is to have continued relevance.

The research has encompassed and drawn into the study a number of subject areas, such as, hospitality and customers and furthermore looked at a multitude of sub-topics within the main areas. It would have been impossible to have covered every related area in depth and instead the study's framework was intended to combine areas, drawing together the relevant aspects for a new study area. However, this research structure could be applied to any of the research spheres included in this study and be fully developed within the different specific fields.

### 8.7 Customer Dining Out Expectations in Relation to Meal Cost - Final Notes

Dining out is an activity participated in by a growing number of customers who dine out for a multitude of reasons. It is part of an industry affected by increasing uptake rates and intensifying competition. Principally, dining out is no longer an infrequent, or necessarily indulgent activity, and consequently restaurant customers are not a predictable homogenous group. So many dining out opportunities exist that restaurant patrons are equally different, with varied socio-economic backgrounds, intentions, behaviours, beliefs, and spend capacity. A key driver for customer choice of dining out venue is their expectations. This study and the generated outcomes have provided new insights and understandings into the current UK dining out situation, as well as, developing and proposing concepts in relation to the future of the evolving dining out industry. The results, therefore, have both academic and industrial application.

## 9 References

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## Appendix 1-Questionnaire

Email Sent to Delicious Magazine E-Subscribers


Dear Reader,
delicious. magazine has teamed up with The University of Plymouth to find out why dining out has become one of the main leisure activities here in the UK. With this in mind the University of Plymouth would like to know what your expectations are when you eat out.

So complete our easy online survey by Thursday 26 November 2009, and you'll be in with a chance to win one of 10 copies of Jamie Oliver's latest cookbook, Jamie's America, worth £26. Please click here to start the survey.

The University of Plymouth was voted as one of the top providers of hospitality courses in the UK by both The Times and Guardian newspapers, and its courses in hospitality are designed to produce professional managers who have the skills to function and communicate in one of the world's fastest-growing industries.

Many thanks


Matthew Drennan, Editor

For great recipes for every occasion visit deliciousmagazine.co.uk or why not follow us on twitter.com/deliciousmag

## Prize draw terms and conditions:

1. The prize: winners will each receive a copy of Jamie's America by Jamie Oliver
2. All entries must be received by 6 pm Thursday 26 November 2009. No entries received after that time will be accepted.
3. The winners will be drawn at random and the judge's decision is final.
4. The winners will be notified by email within 28 days.
5. No purchase necessary.
6. It is the responsibility of the winners to ensure they are able to take delivery of their prize.
7. You must be a UK resident, excluding employees (or families of employees) of Seven

Publishing, Michael Joseph or anyone professionally linked to the competition.
8. No cash alternative will be offered; the prize is non-transferable.
9. By entering the competition, competitors have agreed to be bound by these rules.

[^5]

## Consumer Expectation Survey

1. Approximately how many times in the last 6 months have you eaten at each of the following:


Not eaten at any of the above

## 

2. Which FOUR aspects from the following list are most important to you when eating away from the home?

Experience nice tableware
3. What factors encourage you to visit a restaurant for the first time?

4. What cost per person do you think represents.....

An inexpensive meal $£ \square$ $\square$
A mid-priced meal £


An expensive meal $£$ $\square$

5a. How do your expectations alter regarding the following aspects when eating at an inexpensive restaurant?

|  | Low |  |  |  | High5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |  |
| Good service by well trained/experienced staff | 0 | 0 | 0 | C | C |
| Good atmosphere and decor | 0 | 0 | 0 | 0 | C |
| Cost | 0 | 0 | 0 | 0 | 0 |
| Good quality food | 0 | 6 | 0 | 0 | C |
| Provision made for children, friends/groups | 0 | 0 | 0 | 0 | 0 |
| The location of the restaurant is convenient | 0 | 0 | 0 | 0 | 0 |
| Cleanliness of restaurant and staff | 0 | 0 | 0 | 0 | 0 |
| Menu provides a good range of choices | 0 | 0 | 0 | 0 | 0 |
| Good quality beverages | 0 | 0 | 0 | 0 | 0 |
| You are recognised or made to feel special/valued | 0 | 0 | 0 | 0 | 0 |
| Reliability/consistency of good food and experience | 0 | 0 | 0 | 0 | 0 |
| Food not standardised | 0 | 0 | 0 | 0 | 0 |
| The restaurant has a good reputation | 0 | 0 | 0 | 0 | C |

5b. How do your expectations alter regarding the following aspects when eating at a mid-priced restaurant?

|  | Not important |  |  | Extremely important |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 |
| Good service by well trained/experienced staff | 0 | 0 | 0 | 0 | 0 |
| Good atmosphere and decor | C | 0 | 0 | $\bigcirc$ | 0 |
| Cost | C | 0 | 0 | O | 0 |
| Good quality food | 0 | 0 | 0 | 0 | 0 |
| Provision made for children, friends/groups | 0 | 0 | 0 | 0 | 0 |
| The location of the restaurant is convenient | C | 0 | 0 | C | C |
| Cleanliness of restaurant and staff | 0 | 0 | 0 | $\bigcirc$ | 0 |
| Menu provides a good range of choices | 0 | 0 | 0 | C | 0 |
| Good quality beverages | C | 0 | 0 | $\bigcirc$ | C |
| You are recognised or made to feel special/valued | 0 | 0 | 0 | $\bigcirc$ | 6 |
| Reliability/consistency of good food and experience | 0 | 0 | 0 | $\bigcirc$ | 0 |
| Food not standardised | 0 | 0 | 0 | 0 | 0 |
| The restaurant has a good reputation | C | C | 0 | 0 | C |

5c. How do your expectations alter regarding the following aspects when eating at an expensive restaurant?

|  | Not important |  |  | Extremely important |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 | 5 |
| Good service by well trained/experienced staff | f | C | 0 | C | c |
| Good atmosphere and decor | C | 0 | 0 | C | e |
| Cost | 6 | 0 | 0 | 0 | 0 |
| Good quality food | 0 | 0 | 0 | $\bigcirc$ | C |
| Provision made for children, friends/groups | 0 | 0 | 0 | 0 | C |
| The location of the restaurant is convenient | $\bigcirc$ | 0 | 0 | 0 | 0 |
| Cleanliness of restaurant and staff | C | 0 | C | C | 0 |
| Menu provides a good range of choices | C | 0 | 0 | 0 | 0 |
| Good quality beverages | C | 0 | 0 | 0 | C |
| You are recognised or made to feel special/valued | 0 | 0 | 0 | C | 0 |
| Reliability/consistency of good food and experience | 5 | 0 | 0 | 0 | C |
| Food not standardised | 0 | 0 | 0 | 0 | 0 |
| The restaurant has a good reputation | C | 0 | C | C | C |


6. Please indicate how you feel about the following statements
Strongl Agr Neu Disa Strongly
y Agree ee tral gree Disagree

I carry out tasks efficiently
Eating out with my family is important to me

I would class myself as a 'foodie'
I am trusting
I am interested in food related magazines and/or food programmes on television

I visit food festivals and food events
I value artistic and creative experiences

7. How many of the following food establishments are within a 10 minute walk from your home?

|  | 0 | $1-4$ | $5-9$ |
| :--- | :---: | :---: | :---: |
| Restaurants | C | C | C |
| Rubs | C | C | C |
| Past food outlets | C | C | C |

8. What newspapers do you regularly read? (Please tick all that apply)
$\Gamma$
Daily Mail
$\Gamma$
Independent
Mail on
Sunday
$\ulcorner$ Mirror
$\ulcorner$ Sunday Times
$\Gamma$ Sun
$\ulcorner$ Telegraph
$\ulcorner$ Times
$\ulcorner$ Local paper
$\ulcorner$ None
$\begin{array}{ll}\Gamma \text { Other } & \\ \\ \text { newspaper(s) } & \text { Please specify }\end{array}$


9．Which activities do you enjoy taking part in？（Please tick all that apply）

「 Attending cultural／arts
events
$\Gamma$
Camping／hiking
$\Gamma$
Community work
$\Gamma$
Cooking
$\Gamma$
Computer and／or games
「
r
$\ulcorner$ Cruise ship holidays
$\Gamma$
Cycling 「
$\Gamma$
Dieting
$\ulcorner$ DIY
$\Gamma$
Eating out
$\Gamma$
Foreign travel
$\ulcorner$ Fishing
$\Gamma$
Gardening

Golf
$\ulcorner$ Gourmet／fine food
$\Gamma$
Gym
$\ulcorner$ Horse riding
「 Photography
Reading
$\ulcorner$ Running（outdoors）
$\ulcorner$ Sailing
$\ulcorner$ Science／new technology
$\ulcorner$ Team sports
$\ulcorner$ Other sports
$\ulcorner$ Visiting Trust properties
Wildlife／environmental issues
$\ulcorner$ Wines
$\Gamma$
Other activities $\begin{aligned} & \text { Please specify }\end{aligned}$ $\square$
10. Please indicate how many hours a week on average you spend watching television?
Number of hours:

## |hiniminiminilinil

11. Please indicate your gender

Female
C Male
| Mivilivilivilivilivi
12. What is your age?

|riminiliniminimini
13. How many others (excluding yourself) are there living in your household?
| + ח|
14. If there are others living in your household how many fall into the following age categories:
Under 18
19-40
41-65
Above 65
15. Which best describes the occupation of the main wage earner in your household?

Traditional occupation (e.g. laborer, cleaner, farm worker)
Processor or machine operative (e.g. manufacturing, assembly)
Sales or customer service (e.g. retail assistant, call centre)
O Individual services (e.g. hairdresser, travel agent, nursery nurse)
Skilled trade (e.g. mechanic, carpenter, electrician, plumber)
Administrative or secretarial (e.g. office worker, civil service )
Semi-professional or technical (e.g. technicians, nursing)
Professional (e.g. teacher, lawyer, clergy)
Manager or senior official (e.g. company manager, officers in armed forces/police)
Retired or other (e.g. student, housewife)

16. which of the following best describes your annual household income?

Less than £12,999
£13,000-£24,999
© £25,000-£34,999
C £35,000-£45,999
§ $£ 6,000-£ 56,999$
C £57,000-£67,999
£68,000-£78,999
£79,000-£90,999
O Over £91,000
17. Where do you live?

East of England
East Midlands Ireland

North East
North West
ScotlandSouth EastLondonSouth West
Wales
0
West MidlandsYorkshire and The Humber
Outside UK

## MIIIIIIIIIIIIIII

Please fill in your email address so that you can be contacted if you win a copy of 'Jamie's America'.
Email address:

## 

If you are interested in this research and are willing to participate in any further studies please tick this box
I would like to be considered for further studies

## Appendix 2 - Pre-questionnaire Information

## delicious.

University of Plymouth
Drakes Circus
Plymouth
Devon PL4 8AA
Great Britain

## Invoice

Irvoice Date 17/07/09
Irvoice No. A020450
Seven Publishing Group 20 Upper Ground
London
SE1 9PD

For the Attention of Christina Westhead-Lewi

Customer Tel. No. 01752585696

## Description

Solus e-shot: University of Plymouth
Broadcasting of Uni. of Plymouth survey to 34,471
e-subscribers $x £ 0.08$
NOM:5030/S.DMMKT
CLIENT:C2102
Our contact Becca Bailey

Unit Price VAT \%
5 Amount Quantlity

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Total GBP Excl. VAT
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Total GBP Incl. VAT
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## Appendix 3 -Pilot Questionniares Pilot Questionnaire I

Hello, my name is Christina Westhead and I am a doctoral student at the University of Plymouth. This short survey is being conducted in order to gain insight into opinions of eating out.

Your answers will provide a foundation of knowledge in order to understand more about consumer choices and opinions. This will provide the basis for interview questions, the answers to which will aim to establish what food businesses understand about their consumers' opinions and habits and how/if they adapt their businesses to their consumers.

There are 4 different categories of eating out establishments discussed in this questionnaire. The following are indicators of how to best interpret the categories.

Pub - establishment predominantly serving alcohol that also serves food or has a restaurant attached.

Fast-food outlet - where most food is taken off the premises to be consumed, seating likely to be limited in relation to the number of customers the take-away typically serves.

Café - informal eating, seating provided, likely to be 'help yourself' food, may be stand alone establishment or found in other premises, for example, shops.

Restaurant - table service, booking may be required.

Q1. How often do you eat in the following types of eating establishments over an average 3 month period?

No. of Times:
Restaurant $\qquad$
Fast-food $\qquad$
Café $\qquad$
Pub $\qquad$

Q2. Indicate $(1-4)$ where you most regularly dine with 4 being most often and 1 being never.

| Restaurant | $\square$ |
| :--- | :--- |
| Fast-food | $\square$ |
| Café | $\square$ |
| Pub | $\square$ |

Q3. When do you predominantly visit these eating establishments?


Q4. How many people do you eat with on average?

|  | Are others mainly (please tick) |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Number: | Family | Friends Both |  |
| Restaurant | $\square$ | $\square$ | $\square$ | $\square$ |
| Fast-food | $\square$ | $\square$ | $\square$ | $\square$ |
| Café | $\square$ | $\square$ | $\square$ | $\square$ |
| Pub | $\square$ | $\square$ | $\square$ | $\square$ |

Q5. List 4 reason why you are most likely to eat a meal outside the home.
i] $\qquad$
ii] $\qquad$
iii] $\qquad$
iv] $\qquad$

Q6. Do you ever combine other activities with eating out?
Please place activity letter/s against relevant eating out category.

| Restaurant | ( |
| :---: | :---: |
| Fast-food |  |
| Café | ------------------- |
| Pub | -------------------- |

a. Shopping
b. Theatre
c. Cinema
d. Work
e. Travelling
f. Dinking (elsewhere)
g. Attending an event
h. Other (please state)

Q7. List 3 words or thoughts that come to mind when thinking about eating a meal outside the home.
i] $\qquad$
ii] $\qquad$
iii] $\qquad$

Q8. List 4 places you know of to eat. These do not have to eating establishments that you have visited and they can be local to you, national, or global.
i] $\qquad$
ii] $\qquad$
iii] $\qquad$
iv] $\qquad$

Q9. Which 4 aspects from the following list are most important to you when eating away from the home?
a. Fits into time limitations
b. To have a meal similar to that had in the home
c. To have a meal different to that had in the home
d. Friends accommodated
e. Family accommodated-
f. To provide a positive memory
g. To experience new foods-
h. The social aspect


Q10. How did you initially find out about the place that you consider your favourite place to eat?
$\qquad$

Q11. Do you ever use guides to choose a place to eat?
Yes
No

Q12. If yes to question 9, which categories of eating out establishments do you use a guide to help you with your choice?

|  | (pleas |
| :--- | ---: |
| Restaurant | $\square$ |
| Fast-food | $\square$ |
| Café | $\square$ |
| Pub | $\square$ |

Q14. List 2 reasons why you would choose to eat at one of the following eating establishments? (answer can be assumed if you do not actually eat in eating out category).

Restaurant i] $\qquad$
ii] $\qquad$
Fast-food i] $\qquad$
ii]

Café i] $\qquad$
ii] $\qquad$

Pub i] $\qquad$
ii] $\qquad$

Q15. If you have returned to a food establishment for another meal, what 3 factors encouraged your repeat visit?
i] $\qquad$
ii] $\qquad$
iii] $\qquad$

Q16. List 3 factors that make you want to visit a new place to eat.
i] $\qquad$
ii] $\qquad$
iii] $\qquad$

Q17. Which of the following are most important for you in distinguishing between outlets in the same category? For example, a basic restaurant compared with a superior restaurant, or a local fast food outlet compared with a global one?

|  | Restaurant | Pub | Café | Fast-food |
| :---: | :---: | :---: | :---: | :---: |
|  | $\square$ |  | $\square$ |  |
|  | , |  | $\square$ |  |
|  |  |  |  |  |
|  |  |  | $\square$ |  |
| Reputation/chef----------------------------------------------- |  |  |  |  |
|  |  |  |  |  |
|  |  |  | $\square$ |  |
| Time expected to spend consuming meal------- |  |  |  |  |
| Visit preparation (getting ready and so on)------ |  | $\square$ | , |  |
| Knowledge of restaurant décor-------------------------- |  |  | $\square$ |  |
| Staff appearance and attitude------------------------- |  |  | $\square$ |  |
| Cleanliness----------------------------------------------------------- | $\square$ | $\square$ | , |  |
|  |  |  | , |  |
|  |  |  | $\square$ | $\square$ |
| Reputation---------------------------------------------------- | , | $\square$ | $\square$ | $\square$ |

Q18. Describe the atmosphere that you expect to find in the following food establishments

Restaurant $\qquad$
Fast-food $\qquad$
Café $\qquad$
Pub $\qquad$

Q19. How do you rate the following factors when eating out?

|  | 1 not very important -5 very important |
| :--- | :--- |
| Speed of service |  |
| Cleanliness |  |
| Ambiance of restaurant |  |
| Food |  |
| Other guests in restaurant |  |
| Menu choice |  |
| Cost |  |
| Staff competence |  |
| Restaurants ability to resolve any issues |  |
| Children's facilities |  |

Other important factors not listed $\qquad$
$\qquad$

Q20. When looking at these 4 pictures what 4 comments do they make you think regarding the category of eating establishment that they are portraying?
a. Fast-food outlet

i] $\qquad$
ii] $\qquad$
ii] $\qquad$
iv] $\qquad$
b. Pub restaurant

$\qquad$
ii]
ii] $\qquad$
iv]
c. café

$\qquad$
ii] $\qquad$
iii] $\qquad$
iv] $\qquad$
d. Restaurant

$\qquad$
ii] $\qquad$
iii] $\qquad$
iv] $\qquad$

Q21. From the list below what are the 5 most likely reasons that your meal experience would be ruined?
a. Issue with food
b. Issue with staff
c. Time for food to be served
d. Restaurant not what was expected
e. Unclean/untidy
f. Other diners casing a problem
g. Incorrect orders being served.
h. Limited menu
i. Overly expensive
j. Too hot/too cold
k. Noisy

1. A long wait to be seated
m . No provision for children
n. Dishes on menu not available
o. Table poorly laid
p. Waiting a long time for the bill.
q. Unclean toilets $\qquad$
r. Other/s (please specify) $\qquad$

Q22. From the 5 you have chosen please list in order of importance to you

Most important 1 $\qquad$

2 $\qquad$

3 $\qquad$

4 $\qquad$

Least important 5


Q23. List 3 actions that you would take if you were unhappy with your meal/experience
i] $\qquad$
ii] $\qquad$
iii] $\qquad$

Q24. If you had never visited an eating establishment previously what are the 4 main factors that you have preconceived ideas about?
a. Ambience
b. Food
c. Other diners
d. Décor--
e. Service style
f. Cost
g. Speed of service
h. Theme of easting establishment
i. Staff attitude


Q25. How many of these factors would you need to have imagined wrongly before you were disappointed?
(please tick)


Q26. What 4 factors from the list in Q24 that you either saw or heard about would make you think positively about an eating establishment that you had never visited before?

1 $\qquad$

2 $\qquad$
3 $\qquad$
4 $\qquad$

Q27. On a scale of 1-10 ( 1 being slightly disappointing and 10 being appalled) at what disappointment level (1-10) would you not consider returning to a restaurant whatever reasonable apologetic measures were implemented by the restaurant?

1-10: $\qquad$

Q28. If you were disappointed by your restaurant experience, for example, you experienced a cold meal or service was slow, what factors would improve your opinion of the experience?
a. Free drinks
b. An apology
c. Money/refund
d. Replacement food
e. Nothing
f. Other (please specify) $\qquad$

Q29. Are you.....
Male $\square$ Female


Q30. What age are you?

$$
18-25 \quad 26-35 \quad 36-45 \quad 46-55 \quad 56-65 \quad 65+
$$

Q31. How many people live in your household? $\qquad$

Q32. How many people in your household are under 18 years of age? $\qquad$

Q33. What is your nationality? $\qquad$

Q34. What is your occupation? $\qquad$

All information contained in this questionnaire will be treated in the strictest confidence.

Thank you for taking the time to complete this questionnaire.

## Pilot Questionnaire II

## Eating Out Expectations Survey

This survey is to assist with the data collection for a study by the University of Plymouth looking at peoples eating out patterns and expectations. Names or addresses are not required unless you wish to provide them and the questionnaire is strictly confidential.

Q1. Approximately how many times in the past 3 months have you eaten at the following eating establishments?

Restaurant (establishment defined by food being brought to the table)

Fast-food (establishment with limited seating - food usually taken off the premises to consume)

Café (food taken to table by customer. Can be stand alone establishment or within other facility, such as, a shop)

Pub (establishment serving food either in or separate to bar area)

Q2. When do your visits normally take place to the following eating establishments?
Daytime Evening Day and evening equally Never visit


Q3. How many people on average do you eat with?

|  | Are others mainly (please tick) |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number: | Family | Friends | Both |
| Restaurant | $\square$ | $\square$ | $\square$ | $\square$ |
| Fast-food | $\square$ | $\square$ | $\square$ |  |
| Café | $\square$ | $\square$ | $\square$ |  |
| Pub | $\square$ | $\square$ | $\square$ |  |

Q4. What is the most important reason that would make you eat a meal outside the home?
i] $\qquad$

Q5. Please tick any other activities you would normally combine with eating out?

| Restaurant | Fast-food | Café | Pub |
| :---: | :---: | :---: | :---: |
| Shopping_ <br> Theatre $\qquad$ <br> Cinema $\qquad$ <br> Work $\qquad$ <br> Travelling__ <br> Dinking (elsewhere) $\qquad$ <br> Attending an event $\qquad$ <br> Seeing friends/relatives $\qquad$ <br> Holidaying__ <br> Playing sports__ | Shopping__ <br> Theatre $\qquad$ <br> Cinema $\qquad$ <br> Work $\qquad$ <br> Travelling__ <br> Dinking (elsewhere) $\qquad$ <br> Attending an event $\qquad$ <br> Seeing friends/relatives $\qquad$ <br> Holidaying__ <br> Plavino snorts | Shopping_ <br> Theatre $\qquad$ <br> Cinema $\qquad$ <br> Work $\qquad$ <br> Travelling__ <br> Dinking (elsewhere) $\qquad$ <br> Attending an event $\qquad$ <br> Seeing friends/relatives $\qquad$ <br> Holidaying_ <br> م1 ........................ | Shopping__ <br> Theatre $\qquad$ <br> Cinema $\qquad$ <br> Work $\qquad$ <br> Travelling__ <br> Dinking (elsewhere) $\qquad$ <br> Attending an event $\qquad$ <br> Seeing friends/relatives $\qquad$ <br> Holidaying__ <br> n. |

Q6. Which 3 aspects from the following list are most important to you when eating away from the home?
i. Fits into time limitations $\qquad$
j. To have a meal similar to that had in the home


Q7. If you have a favourite place to eat, how did you initially find out about it?


Q8. Has your decision as to where to eat ever been influenced by the following? Please tick all that apply.

Guide book
Restaurant


Magazine


Internet



Q9. Describe the main reason why you choose to eat at the following. (Please leave blank the categories that you do not eat at).

Restaurant $\qquad$

Fast-food $\qquad$

Café $\qquad$

Pub $\qquad$

Q10. If you are going to return to somewhere you have eaten before what encourages you to go back?
$\square$

Q11. What makes you want to visit a new place to eat?.
$\square$

Q12. Which 3 statements best describe what you would you would pay a premium for when dining in the following places?



Q13. Describe the atmosphere that you expect to find in the following food establishments

Restaurant $\qquad$
Fast-food $\qquad$

Café $\qquad$

Pub $\qquad$

Q14. How do you rate the following factors when eating out?

|  | 1 not very important - 5 very important |
| :--- | :--- |
| Speed of service |  |
| Cleanliness |  |
| Ambiance of restaurant |  |
| Food |  |
| Other guests in restaurant |  |
| Menu choice |  |
| Cost |  |
| Staff attitude - welcoming/enthusiastic/helpful |  |
| Staff competence - food \& drink knowledge |  |
| Staff service - skill/manner |  |
| Restaurants ability to resolve any issues |  |
| Children's facilities |  |
| Location |  |
| Otr impor |  |

Other important factors to you not listed

Q15. From the following list which 3 are likely to cause you most concern?
Restaurant Pub Café Fast food outlet
s. Food not meeting expectations
t. Service not meeting expectations
u. Time for food to be served. $\qquad$
v. Interior not what was expected.
w. Unclean/untidy looking eating area
x . Other diners causing a problem
y. Incorrect orders being served
z. Limited menu
aa. Overly expensive.
bb. Restaurant too hot/too cold.
cc. Noisy
dd. A long wait to be seated.
ee. No provision for children
ff. Dishes on menu not available
gg. Table poorly laid
hh. Waiting a long time for the bill.
ii. Unclean/untidy toilets.


Q17. What would you do if you were unhappy with your meal/experience?
First I would......

Secondly, I would... $\qquad$
Thirdly, I would......

Q18. Please tick up to 3 factors that you have preconceived ideas about when choosing to visit an eating establishment for the first time.


Q19. How many of the above factors would it take to cause you disappointment if your preconceptions were not met?
(please tick)
$\square 1$2 $\square$
$\square$

Q20. Which 3 factors from the list in Q18 would make you think positively about an eating establishment that you had never visited before?

Letters from Q18:

1 $\square$
2 $\square$

3 $\square$
Q21. On a scale of 1-10 (1 being slightly disappointing and 10 being appalled) at approximately what number (1-10) would you consider not returning to a restaurant, whatever reasonable apologetic measures were implemented by the restaurant?

1-10: $\square$

Q22. If you were disappointed by your restaurant experience, for example, you experienced a cold meal or service was slow, which 2 options, if offered, would improve your opinion of the experience?
(please tick 2)
a. Free drinks
b. An apology
c. Money/refund

d. Replacement food
e. Other (please specify)
f. Nothing would change your opinion

Q23. Please indicate how you feel about the following statements:

I like to try new and different things...................
It's very important to me to feel part of a group..
I am a 'spender' rather than a 'saver' $\qquad$
I would rather have a quiet evening at home. than go out to a party

My family is important to me $\qquad$
My friends are important to me $\qquad$
Eating out with the family is important. $\qquad$
I would class myself as a 'foodie' $\qquad$
I buy food related magazines $\qquad$
I like to watch cookery shows on television. $\qquad$


I visit food festivals and events $\qquad$

Q24. From your home provide an estimate of the numt 20 minute walk

Restaurants: ${ }^{0} \square_{1-2} \square^{3-5} \square_{6-10} \square^{0+} \quad \square$ Cafes $\quad{ }^{0} \square^{1-2} \square^{3-5} \square_{6-10} \square_{10+} \square$

Pubs: 0

$\square$ ${ }^{6-10} \square^{10+}$ $\square$ Fast food outlets: 0 $0 \quad \square^{1}$ $-2$ $\square^{3-5}$ $\square$ $\square$ 6-10


Q25. What newspaper/s do you regularly read? (please tick all that apply) Sunday papers?


Other newspaper (please specify) $\qquad$

Q26. Please indicate how many hours a week on average you spend watching television
Number of hours: $\square$

Q27. Which interests and activities do you participate in on a regular basis?
Bicycling $\square$
Golf $\square$
Gym $\square$

| Running (outdoors) | $\square$ |
| :--- | :--- |
| Skiing | $\square$ |
| Tennis | $\square$ |
| Camping/hiking | $\square$ |

Fishing $\square$
Sailing $\square$ Fontinued...

Horse riding $\square$
Gardening $\square$
Reading $\square$
Needlework/knitting $\square$
Time with Children $\square$
Time with Grandchildren $\square$
Crafts $\square$
DIY $\square$
Photography $\square$
Attending cultural/arts events $\square$
Fashion $\square$
Art/antiques $\square$
Foreign travel $\square$
Cruise ship holidays $\square$
Cooking $\square$


Q28. Please indicate your gender
Male
$\square$

Q31. What is your age? $\square$

Q32. The approximate ages of all others


Q33. Which best describes the occupation of the principal wage earner in your household?

Traditional occupation(for example labourer, packer, cleaner, storeman, farm worker)
Process, plant and machine operative (for example factory operative, manufacture, assembly)
Sales and customer service (for example retail assistant, cashier, call centre, check out operator)
Personal and service occupation(for example hairdresser, travel agent, lorry driver, care assistant)
Skilled trade (for example mechanic, carpenter, roofer, welder, electrical, plumber)

Administrative or secretarial (for example office worker, civil service, finance)
Semi-professional and technical (for example engineering, design, nursing)
Professional (for example teacher, lawyer, accountant, bank manager, doctor)
Manager or senior official (for example director, company manager)
Retired or other (for example student, long-term unemployed)

Q34. What is your annual household income? (Select one)

| Less than $£ 15,000$ | $\square$ | $£ 16,000-25,000$ | $\square$ |
| :--- | :--- | :--- | :--- |
| $£ 26,000-£ 35,000$ | $\square$ | $£ 36,000-£ 45,000$ | $\square$ |
| $£ 46,000-£ 55,000$ | $\square$ | more than $£ 55,000$ | $\square$ |

Q35. What is you nationality? $\qquad$

Q36. If you are interested in this study and wish to participate further at a later stage please provide your name and address and or email address:

## All information contained in this questionnaire will be treated in the strictest confidence.

Thank you for taking the time to complete this questionnaire.

## Appendix 4 - Quantitative Data Analysis

### 4.1 Correlation Tables for Age by Factor Group

CORRELATIONS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1 age /PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.
Correlations

|  |  | REGR factor score 1 for analysis 1 | REGR factor score 2 for analysis 1 | REGR factor score 3 for analysis 1 |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | 1 1885 | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | 1 1885 | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | 1 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ |
| age of respondent | Pearson Correlation Sig. (2-tailed) N | $\begin{gathered} .170 \\ .000 \\ 1862 \end{gathered}$ | $\begin{gathered} .019 \\ .401 \\ 1862 \end{gathered}$ | -.007 .778 1862 |

Correlations

|  |  | REGR factor score 4 for analysis 1 | age of respondent |
| :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation | . 000 | . 170 |
|  | Sig. (2-tailed) | 1.000 | . 000 |
|  | N | 1885 | 1862 |
| REGR factor score 2 for analysis 1 | Pearson Correlation | . 000 | . 019 |
|  | Sig. (2-tailed) | 1.000 | . 401 |
|  | N | 1885 | 1862 |
| REGR factor score 3 for analysis 1 | Pearson Correlation | . 000 | -. 007 |
|  | Sig. (2-tailed) | 1.000 | . 778 |
|  | N | 1885 | 1862 |
| REGR factor score 4 for analysis 1 | Pearson Correlation | 1 | -. 062 |
|  | Sig. (2-tailed) |  | . 008 |
|  | N | 1885 | 1862 |
| age of respondent | Pearson Correlation | -. 062 | 1 |
|  | Sig. (2-tailed) | . 008 |  |
|  | N | 1862 | 2192 |

[^6]
### 4.2 Correlation Tables for Occupation by Factor Group

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY occup
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

|  |  | Sum of Squares | df | Mean Square |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Between Groups | 39.110 | 9 |  |
|  | Within Groups | 1844.890 | 1875 | $.984$ |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 18.715 | 9 | $\begin{array}{r} 2.079 \\ .995 \end{array}$ |
|  | Within Groups | 1865.285 | 1875 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 13.658 | 9 | $\begin{array}{r} 1.518 \\ .998 \end{array}$ |
|  | Within Groups | 1870.342 | 1875 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 30.620 | 9 | $\begin{array}{r} 3.402 \\ .988 \end{array}$ |
|  | Within Groups | 1853.380 | 1875 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  | ANOVA | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.416 | .000 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 2.090 | .027 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.521 | .135 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 3.442 | .000 |

## Post Hoc Tests

## Multiple Comparisons

| Dependent Variable | (I) main occupation | (J) main occupation | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | traditional | processor | -. 52079832 | . 27051139 | . 652 | -1.3776486 | . 3360520 |
|  |  | sales | -. 02006370 | . 19112191 | 1.000 | -. 6254462 | . 5853188 |
|  |  | individual | . 01656312 | . 24338020 | 1.000 | -. 7543486 | . 7874748 |
|  |  | skilled | -. 15148799 | . 16758134 | . 996 | -. 6823053 | . 3793293 |
|  |  | admin | -. 06058442 | . 15976306 | 1.000 | -. 5666371 | . 4454683 |
|  |  | semiprofessional | -. 05161294 | . 16475458 | 1.000 | -. 5734764 | . 4702505 |
|  |  | professional | . 12004224 | . 15353083 | . 999 | -. 3662698 | . 6063543 |
|  |  | manager | -. 01086992 | . 15382591 | 1.000 | -. 4981166 | . 4763768 |
|  |  | retired/other | -. 30887428 | . 15746323 | . 626 | -. 8076422 | . 1898937 |
|  | processor | traditional | . 52079832 | . 27051139 | . 652 | -. 3360520 | 1.3776486 |
|  |  | sales | . 50073462 | . 25869662 | . 645 | -. 3186922 | 1.3201614 |
|  |  | individual | . 53736144 | . 29938316 | . 739 | -. 4109408 | 1.4856637 |
|  |  | skilled | . 36931033 | . 24182610 | . 881 | -. 3966787 | 1.1352994 |
|  |  | admin | . 46021390 | . 23647535 | . 637 | -. 2888265 | 1.2092543 |


|  | semi- <br> professional <br> professional <br> manager <br> retired/other | .46918538 .64084056 .50992840 .21192404 | $\begin{aligned} & .23987585 \\ & .23231029 \\ & .23250541 \\ & .23492770 \\ & \hline \end{aligned}$ | .630 .152 .462 .996 | $\begin{aligned} & -.2906262 \\ & -.0950070 \\ & -.2265372 \\ & -.5322142 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1.2289970 \\ 1.3766881 \\ 1.2463940 \\ .9560623 \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| sales | traditional | . 02006370 | . 19112191 | 1.000 | -. 5853188 | . 6254462 |
|  | processor | -. 50073462 | . 25869662 | . 645 | -1.3201614 | . 3186922 |
|  | individual | . 03662682 | . 23017700 | 1.000 | -. 6924635 | . 7657171 |
|  | skilled | -. 13142429 | . 14775329 | . 997 | -. 5994358 | . 3365873 |
|  | admin | -. 04052072 | . 13882278 | 1.000 | -. 4802447 | . 3992033 |
|  | semi- <br> professional | -. 03154924 | . 14453927 | 1.000 | -. 4893803 | . 4262818 |
|  | professional | . 14010594 | . 13160261 | . 988 | -. 2767480 | . 5569599 |
|  | manager | . 00919378 | . 13194673 | 1.000 | -. 4087502 | . 4271377 |
|  | retired/other | -. 28881058 | . 13616974 | . 513 | -. 7201310 | . 1425098 |
| individual | traditional | -. 01656312 | . 24338020 | 1.000 | -. 7874748 | . 7543486 |
|  | processor | -. 53736144 | . 29938316 | . 739 | -1.4856637 | . 4109408 |
|  | sales | -. 03662682 | . 23017700 | 1.000 | -. 7657171 | . 6924635 |
|  | skilled | -. 16805111 | . 21103880 | . 999 | -. 8365208 | . 5004185 |
|  | admin | -. 07714754 | . 20488558 | 1.000 | -. 7261268 | . 5718317 |
|  | semi- <br> professional | -. 06817606 | . 20880119 | 1.000 | -. 7295581 | . 5932059 |
|  | professional | . 10347912 | . 20006395 | 1.000 | -. 5302275 | . 7371857 |
|  | manager | -. 02743304 | . 20029048 | 1.000 | -. 6618572 | . 6069911 |
|  | retired/other | -. 32543740 | . 20309736 | . 847 | -. 9687524 | . 3178776 |
| skilled | traditional | . 15148799 | . 16758134 | . 996 | -. 3793293 | . 6823053 |
|  | processor | -. 36931033 | . 24182610 | . 881 | -1.1352994 | . 3966787 |
|  | sales | . 13142429 | . 14775329 | . 997 | -. 3365873 | . 5994358 |
|  | individual | . 16805111 | . 21103880 | . 999 | -. 5004185 | . 8365208 |
|  | admin | . 09090357 | . 10405616 | . 997 | -. 2386964 | . 4205036 |
|  | semi- <br> professional | . 09987506 | . 11156846 | . 997 | -. 2535203 | . 4532704 |
|  | professional | . 27153023 | . 09420810 | . 111 | -. 0268758 | . 5699363 |
|  | manager | . 14061807 | . 09468822 | . 898 | -. 1593088 | . 4405449 |
|  | retired/other | -. 15738629 | . 10048940 | . 864 | -. 4756885 | . 1609159 |
| admin | traditional | . 06058442 | . 15976306 | 1.000 | -. 4454683 | . 5666371 |
|  | processor | -. 46021390 | . 23647535 | . 637 | -1.2092543 | . 2888265 |
|  | sales | . 04052072 | . 13882278 | 1.000 | -. 3992033 | . 4802447 |
|  | individual | . 07714754 | . 20488558 | 1.000 | -. 5718317 | . 7261268 |
|  | skilled | -. 09090357 | . 10405616 | . 997 | -. 4205036 | . 2386964 |
|  | semi- <br> professional | . 00897148 | . 09943968 | 1.000 | -. 3060057 | . 3239487 |
|  | professional | . 18062666 | . 07947261 | . 407 | -. 0711044 | . 4323577 |
|  | manager | . 04971450 | . 08004117 | 1.000 | -. 2038175 | . 3032465 |
|  | retired/other | -. 24828986 | . 08682654 | . 118 | -. 5233147 | . 0267350 |
| semi- | traditional | . 05161294 | . 16475458 | 1.000 | -. 4702505 | . 5734764 |
| professional | processor | -. 46918538 | . 23987585 | . 630 | -1.2289970 | . 2906262 |
|  | sales | . 03154924 | . 14453927 | 1.000 | -. 4262818 | . 4893803 |
|  | individual | . 06817606 | . 20880119 | 1.000 | -. 5932059 | . 7295581 |
|  | skilled | -. 099887506 | . 11156846 | . 997 | -. 4532704 | . 2535203 |
|  | admin | -. 00897148 | . 09943968 | 1.000 | -. 3239487 | . 3060057 |
|  | professional | . 17165518 | . 08908272 | . 651 | -. 1105161 | . 4538265 |
|  | manager | . 04074302 | . 08959031 | 1.000 | -. 2430361 | . 3245221 |
|  | retired/other | -. 25726134 | . 09570101 | . 179 | -. 5603962 | . 0458735 |
| professional | traditional | -. 12004224 | . 15353083 | . 999 | -. 6063543 | . 3662698 |
|  | processor | -. 64084056 | . 23231029 | . 152 | -1.3766881 | . 0950070 |
|  | sales | -. 14010594 | . 13160261 | . 988 | -. 5569599 | . 2767480 |
|  | individual | -. 10347912 | . 20006395 | 1.000 | -. 7371857 | . 5302275 |
|  | skilled | -. 27153023 | . 09420810 | . 111 | -. 5699363 | . 0268758 |
|  | admin | -. 18062666 | . 07947261 | . 407 | -. 4323577 | . 0711044 |
|  | semi- <br> professional | -. 17165518 | . 08908272 | . 651 | -. 4538265 | . 1105161 |
|  | manager | -. 13091216 | . 06673882 | . 626 | -. 3423087 | . 0804844 |
|  | retired/other | -. $42891652^{\circ}$ | . 07474175 | . 000 | -. 6656625 | -. 1921705 |



|  |  | retired/other | . 01271269 | . 10104332 | 1.000 | -. 3073441 | . 3327695 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | admin | traditional | . 39754491 | . 16064371 | 283 | -. 1112973 | . 9063871 |
|  |  | processor | -. 13504901 | . 23777886 | 1.000 | -. 8882184 | . 6181203 |
|  |  | sales | -. 03999732 | . 13958801 | 1.000 | -. 4821452 | . 4021505 |
|  |  | individual | . 00179838 | . 20601496 | 1.000 | -. 6507582 | . 6543549 |
|  |  | skilled | -. 05610594 | . 10462975 | 1.000 | -. 3875228 | . 2753109 |
|  |  | semi- | -. 14267470 | . 09998781 | . 919 | -. 4593881 | . 1740387 |
|  |  | professional | -. 09380529 | . 07991068 | . 976 | -. 3469240 | . 1593134 |
|  |  | manager | -. 18908638 | . 08048238 | . 357 | -. 4440159 | . 0658432 |
|  |  | retired/other | -. 04339325 | . 08730515 | 1.000 | -. 3199341 | 2331476 |
|  | semi- | traditional | . 54021961 | . 16566274 | 038 | . 0154795 | 1.0649597 |
|  | professional | processor | . 00762568 | . 24119811 | 1.000 | -. 7563742 | . 7716256 |
|  |  | sales | . 10267737 | . 14533601 | . 999 | -. 3576774 | . 5630321 |
|  |  | individual | . 14447307 | . 20995216 | 1.000 | -. 5205546 | . 8095008 |
|  |  | skilled | . 08656876 | . 11218345 | . 999 | -. 2687746 | . 4419121 |
|  |  | admin | . 14267470 | . 09998781 | . 919 | -. 1740387 | . 4593881 |
|  |  | professional | . 04886941 | . 08957376 | 1.000 | -. 2348573 | . 3325961 |
|  |  | manager | -. 04641169 | . 09008416 | 1.000 | -. 3317551 | . 2389317 |
|  |  | retired/other | . 09928145 | . 09622854 | . 990 | -. 2055244 | 4040873 |
|  | professional | traditional | 49135020 | . 15437713 | . 048 | . 0023575 | . 9803429 |
|  |  | processor | -. 04124372 | . 23359084 | 1.000 | -. 7811474 | . 6986600 |
|  |  | sales | . 05380797 | . 13232803 | 1.000 | -. 3653438 | . 4729597 |
|  |  | individual | . 09560366 | . 20116675 | 1.000 | -. 5415961 | . 7328034 |
|  |  | skilled | . 03769935 | . 09472740 | 1.000 | -. 2623516 | . 3377503 |
|  |  | admin | . 09380529 | . 07991068 | . 976 | -. 1593134 | . 3469240 |
|  |  | semiprofessional | -. 04886941 | . 08957376 | 1.000 | -. 3325961 | . 2348573 |
|  |  | manager | -. 09528109 | . 06710670 | . 921 | -. 3078429 | . 1172807 |
|  |  | retired/other | . 05041204 | . 07515374 | 1.000 | -. 1876390 | . 2884630 |
|  | manager | traditional | . 58663129 | . 15467383 | . 006 | . 0966988 | 1.0765638 |
|  |  | processor | . 05403737 | . 23378704 | 1.000 | -. 6864878 | . 7945625 |
|  |  | sales | . 14908906 | . 13267405 | . 982 | -. 2711587 | . 5693368 |
|  |  | individual | . 19088476 | . 20139453 | . 995 | -. 4470365 | . 8288060 |
|  |  | skilled | . 13298045 | . 09521017 | . 928 | -. 1685997 | . 4345606 |
|  |  | admin | . 18908638 | . 08048238 | . 357 | -. 0658432 | . 4440159 |
|  |  | semi- | . 04641169 | . 09008416 | 1.000 | -. 2389317 | . 3317551 |
|  |  | professional | . 09528109 | . 06710670 | . 921 | -. 1172807 | . 3078429 |
|  |  | retired/other | . 14569314 | 07576135 | . 653 | -. 0942825 | 3856687 |
|  | retired/other | traditional | . 44093816 | . 15833121 | . 142 | -. 0605791 | . 9424555 |
|  |  | processor | -. 09165577 | . 23622268 | 1.000 | -. 8398959 | . 6565844 |
|  |  | sales | . 00339592 | . 13692035 | 1.000 | -. 4303020 | . 4370939 |
|  |  | individual | . 04519162 | . 20421688 | 1.000 | -. 6016695 | . 6920527 |
|  |  | skilled | -. 01271269 | . 10104332 | 1.000 | -. 3327695 | . 3073441 |
|  |  | admin | . 04339325 | . 08730515 | 1.000 | -. 2331476 | . 3199341 |
|  |  | semi- | -. 09928145 | . 09622854 | . 990 | -. 4040873 | . 2055244 |
|  |  | professional | -. 05041204 | . 07515374 | 1.000 | -. 2884630 | . 1876390 |
|  |  | manager | -. 14569314 | . 07576135 | . 653 | -. 3856687 | . 0942825 |
| REGR factor score 3 | traditional | processor | -. 73139131 | . 27237098 | . 180 | -1.5941319 | . 1313493 |
| for analysis 1 |  | sales | -. 19162821 | . 19243575 | . 993 | -. 8011724 | . 4179159 |
|  |  | individual | -. 20378374 | . 24505328 | . 998 | -. 9799950 | . 5724275 |
|  |  | skilled | -. 29874058 | . 16873335 | . 754 | -. 8332069 | . 2357257 |
|  |  | admin | -. 25017905 | . 16086132 | . 869 | -. 7597105 | . 2593525 |
|  |  | semi- <br> professional | -. 31134646 | . 16588716 | . 685 | -. 8367974 | . 2141045 |
|  |  | professional | -. 28514729 | . 15458625 | . 706 | -. 7748024 | . 2045078 |
|  |  | manager | -. 24181245 | . 15488336 | . 867 | -. 7324086 | . 2487837 |
|  |  | retired/other | -. 40491905 | . 15854569 | . 241 | -. 9071157 | . 0972776 |
|  | processor | traditional | . 73139131 | . 27237098 | . 180 | -. 1313493 | 1.5941319 |
|  |  | sales | . 53976310 | . 26047499 | . 548 | -. 2852967 | 1.3648229 |
|  |  | individual | . 52760758 | . 30144123 | . 766 | -. 4272136 | 1.4824288 |
|  |  | skilled | . 43265073 | . 24348849 | . 750 | -. 3386040 | 1.2039055 |
|  |  | admin | . 48121227 | . 23810096 | . 584 | -. 2729773 | 1.2354019 |
|  |  | semi- <br> professional | . 42004485 | . 24152484 | . 773 | -. 3449900 | 1.1850797 |
|  |  | professional | . 44624402 | . 23390727 | . 664 | -. 2946620 | 1.1871500 |
|  |  | manager | . 48957886 | . 23410373 | . 534 | -. 2519494 | 1.2311072 |
|  |  | retired/other | . 32647227 | . 23654267 | . 933 | -. 4227814 | 1.0757260 |
|  | sales | traditional | . 19162821 | 19243575 | . 993 | -. 4179159 | . 8011724 |


|  | processor | -. 53976310 | . 26047499 | . 548 | -1.3648229 | . 2852967 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | individual | -. 01215552 | . 23175932 | 1.000 | -. 7462579 | . 7219468 |
|  | skilled | -. 10711237 | . 14876900 | . 999 | -. 5783412 | . 3641165 |
|  | admin | -. 05855083 | . 13977710 | 1.000 | -. 5012976 | . 3841960 |
|  | semi- | -. 11971825 | . 14553288 | . 998 | -. 5806966 | . 3412601 |
|  | professional | -. 09351908 | . 13250729 | . 999 | -. 5132386 | . 3262004 |
|  | manager | -. 05018424 | . 13285378 | 1.000 | -. 4710013 | . 3706328 |
|  | retired/other | -. 21329083 | . 13710582 | . 869 | -. 6475763 | . 2209946 |
| individual | traditional | . 20378374 | . 24505328 | . 998 | -. 5724275 | . 9799950 |
|  | processor | -. 52760758 | . 30144123 | . 766 | -1.4824288 | . 4272136 |
|  | sales | . 01215552 | . 23175932 | 1.000 | -. 7219468 | . 7462579 |
|  | skilled | -. 09495684 | . 21248955 | 1.000 | -. 7680218 | . 5781081 |
|  | admin | -. 04639531 | . 20629404 | 1.000 | -. 6998358 | . 6070452 |
|  | semi- <br> professional | -. 10756272 | . 21023656 | 1.000 | -. 7734913 | . 5583659 |
|  | professional | -. 08136355 | . 20143926 | 1.000 | -. 7194265 | . 5566994 |
|  | manager | -. 03802871 | . 20166735 | 1.000 | -. 6768141 | . 6007567 |
|  | retired/other | -. 20113531 | . 20449352 | . 993 | -. 8488727 | . 4466021 |
| skilled | traditional | . 29874058 | . 16873335 | . 754 | -. 2357257 | . 8332069 |
|  | processor | -. 43265073 | . 24348849 | . 750 | -1.2039055 | . 3386040 |
|  | sales | . 10711237 | . 14876900 | . 999 | -. 3641165 | . 5783412 |
|  | individual | . 09495684 | . 21248955 | 1.000 | -. 5781081 | . 7680218 |
|  | admin | . 04856154 | . 10477148 | 1.000 | -. 2833043 | . 3804273 |
|  | semi- <br> professional | -. 01260588 | . 11233542 | 1.000 | -. 3684306 | . 3432188 |
|  | professional | . 01359329 | . 09485572 | 1.000 | -. 2868641 | . 3140507 |
|  | manager | . 05692813 | . 09533914 | 1.000 | -. 2450605 | . 3589168 |
|  | retired/other | -. 10617847 | . 10118020 | . 989 | -. 4266688 | . 2143119 |
| admin | traditional | . 25017905 | . 16086132 | . 869 | -. 2593525 | . 7597105 |
|  | processor | -. 48121227 | . 23810096 | . 584 | -1.2354019 | . 2729773 |
|  | sales | . 05855083 | . 13977710 | 1.000 | -. 3841960 | . 5012976 |
|  | individual | . 04639531 | . 20629404 | 1.000 | -. 6070452 | . 6998358 |
|  | skilled | -. 04856154 | . 10477148 | 1.000 | -. 3804273 | . 2833043 |
|  | semi- <br> professional | -. 06116741 | . 10012326 | 1.000 | -. 3783099 | . 2559750 |
|  | professional | -. 03496825 | . 08001893 | 1.000 | -. 2884298 | . 2184933 |
|  | manager | . 00836660 | . 08059140 | 1.000 | -. 2469083 | . 2636415 |
|  | retired/other | -. 15474000 | . 08742342 | . 754 | -. 4316554 | . 1221754 |
| semi- | traditional | . 31134646 | . 16588716 | . 685 | -. 2141045 | . 8367974 |
| professional | processor | -. 42004485 | . 24152484 | . 773 | -1.1850797 | . 3449900 |
|  | sales | . 11971825 | . 14553288 | . 998 | -. 3412601 | . 5806966 |
|  | individual | . 10756272 | . 21023656 | 1.000 | -. 5583659 | . 7734913 |
|  | skilled | . 01260588 | . 11233542 | 1.000 | -. 3432188 | . 3684306 |
|  | admin | . 06116741 | . 10012326 | 1.000 | -. 2559750 | . 3783099 |
|  | professional | . 02619917 | . 08969510 | 1.000 | -. 2579119 | . 3103102 |
|  | manager | . 06953401 | . 09020619 | . 999 | -. 2161959 | . 3552639 |
|  | retired/other | -. 09357259 | . 09635889 | . 994 | -. 3987913 | . 2116462 |
| professional | traditional | . 28514729 | . 15458625 | . 706 | -. 2045078 | . 7748024 |
|  | processor | -. 44624402 | . 23390727 | . 664 | -1.1871500 | . 2946620 |
|  | sales | . 09351908 | . 13250729 | . 999 | -. 3262004 | . 5132386 |
|  | individual | . 08136355 | . 20143926 | 1.000 | -. 5566994 | . 7194265 |
|  | skilled | -. 01359329 | . 09485572 | 1.000 | -. 3140507 | . 2868641 |
|  | admin | . 03496825 | . 08001893 | 1.000 | -. 2184933 | . 2884298 |
|  | semi- <br> professional | -. 02619917 | . 08969510 | 1.000 | -. 3103102 | . 2579119 |
|  | manager | . 04333484 | . 06719760 | 1.000 | -. 1695149 | . 2561846 |
|  | retired/other | -. 11977175 | . 07525555 | . 852 | -. 3581452 | . 1186017 |
| manager | traditional | . 24181245 | . 15488336 | . 867 | -. 2487837 | . 7324086 |
|  | processor | -. 48957886 | . 23410373 | . 534 | -1.2311072 | . 2519494 |
|  | sales | . 05018424 | . 13285378 | 1.000 | -. 3706328 | . 4710013 |
|  | individual | . 03802871 | . 20166735 | 1.000 | -. 6007567 | . 6768141 |
|  | skilled | -. 05692813 | . 09533914 | 1.000 | -. 3589168 | . 2450605 |
|  | admin | -. 00836660 | . 08059140 | 1.000 | -. 2636415 | . 2469083 |
|  | semiprofessional | -. 06953401 | . 09020619 | . 999 | -. 3552639 | . 2161959 |
|  | professional | -. 04333484 | . 06719760 | 1.000 | -. 2561846 | . 1695149 |
|  | retired/other | -. 16310660 | . 07586398 | . 492 | -. 4034073 | . 0771941 |
| retired/other | traditional | . 40491905 | . 15854569 | . 241 | -. 0972776 | . 9071157 |
|  | processor | -. 32647227 | . 23654267 | . 933 | -1.0757260 | . 4227814 |
|  | sales | . 21329083 | . 13710582 | . 869 | -. 2209946 | . 6475763 |


|  |  | individual <br> skilled <br> admin <br> semi- <br> professiona <br> professiona <br> manager | .20113531 .10617847 .15474000 .09357259 .11977175 .16310660 | $\begin{aligned} & .20449352 \\ & .0118020 \\ & .08742342 \\ & .09635889 \\ & .07525555 \\ & .07586398 \end{aligned}$ | .993 .989 .754 .994 .852 .492 | -.4466021 <br> -.2143119 <br> -.1221754 <br> -.2116462 <br> -.1186017 <br> -.0771941 <br> -.2323 | $\begin{aligned} & .8488727 \\ & .4266688 \\ & .4316554 \\ & .3987913 \\ & .3581452 \\ & .4034073 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score for analysis 1 | 4 traditional | processor | . 13560638 | . 27113310 | 1.000 | -. 7232132 | . 9944260 |
|  |  | sales | . 21724433 | . 19156117 | . 981 | -. 3895295 | . 8240182 |
|  |  | individual | . 16054472 | . 24393956 | 1.000 | -. 6121388 | . 9332282 |
|  |  | skilled | . 26896916 | . 16796649 | . 848 | -. 2630681 | . 8010064 |
|  |  | admin | . 31331679 | . 16013024 | . 630 | -. 1938990 | . 8205326 |
|  |  | semi- <br> professional | . 39644044 | . 16513323 | . 326 | -. 1266224 | . 9195033 |
|  |  | professional | .54030609* | . 15388369 | . 016 | . 0528764 | 1.0277358 |
|  |  | manager | . $51105714^{\circ}$ | . 15417944 | . 032 | . 0226906 | . 9994236 |
|  |  | retired/other | 45198802 | . 15782513 | . 117 | -. 0479263 | 9519023 |
|  | processor | traditional | -. 13560638 | . 27113310 | 1.000 | -. 9944260 | . 7232132 |
|  |  | sales | . 08163795 | . 25929118 | 1.000 | -. 7396721 | . 9029480 |
|  |  | individual | . 02493834 | . 30007123 | 1.000 | -. 9255434 | . 9754200 |
|  |  | skilled | . 13336278 | . 24238188 | 1.000 | -. 6343867 | . 9011123 |
|  |  | admin | . 17771041 | . 23701883 | . 999 | -. 5730515 | . 9284724 |
|  |  | semiprofessional | . 26083405 | . 24042716 | . 986 | -. 5007238 | 1.0223919 |
|  |  | professional | . 40469970 | . 23284420 | . 774 | -. 3328390 | 1.1422384 |
|  |  | manager | . 37545075 | . 23303977 | . 843 | -. 3627074 | 1.1136089 |
|  |  | retired/other | . 31638163 | . 23546763 | . 943 | -. 4294669 | 1.0622301 |
|  | sales | traditional | -. 21724433 | . 19156117 | . 981 | -. 8240182 | . 3895295 |
|  |  | processor | -. 08163795 | . 25929118 | 1.000 | -. 9029480 | . 7396721 |
|  |  | individual | -. 05669961 | . 23070602 | 1.000 | -. 7874656 | . 6740664 |
|  |  | skilled | . 05172483 | . 14809287 | 1.000 | -. 4173623 | . 5208120 |
|  |  | admin | . 09607246 | . 13914184 | 1.000 | -. 3446621 | . 5368070 |
|  |  | semiprofessional | . 17919611 | . 14487146 | . 966 | -. 2796872 | . 6380794 |
|  |  | professional | . 32306176 | . 13190507 | . 297 | -. 0947502 | . 7408737 |
|  |  | manager | . 29381281 | . 13224998 | . 442 | -. 1250917 | . 7127173 |
|  |  | retired/other | . 23474369 | . 13648270 | . 784 | -. 1975680 | . 6670554 |
|  | individual | traditional | -. 16054472 | . 24393956 | 1.000 | -. 9332282 | . 6121388 |
|  |  | processor | -. 02493834 | . 30007123 | 1.000 | -. 9754200 | . 9255434 |
|  |  | sales | . 05669961 | . 23070602 | 1.000 | -. 6740664 | . 7874656 |
|  |  | skilled | . 10842444 | . 21152382 | 1.000 | -. 5615816 | . 7784304 |
|  |  | admin | . 15277207 | . 20535647 | . 999 | -. 4976987 | . 8032428 |
|  |  | semiprofessiona | . 23589572 | . 20928108 | . 982 | -. 4270063 | . 8987978 |
|  |  | professional | . 37976136 | . 20052375 | . 673 | -. 2554017 | 1.0149244 |
|  |  | manager | . 35051242 | . 20075081 | . 769 | -. 2853698 | . 9863947 |
|  |  | retired/other | . 29144330 | . 20356413 | . 917 | -. 3533502 | . 9362368 |
|  | skilled | traditional | -. 26896916 | . 16796649 | 848 | -. 8010064 | . 2630681 |
|  |  | processor | -. 13336278 | . 24238188 | 1.000 | -. 9011123 | . 6343867 |
|  |  | sales | -. 05172483 | . 14809287 | 1.000 | -. 5208120 | . 4173623 |
|  |  | individual | -. 10842444 | . 21152382 | 1.000 | -. 7784304 | . 5615816 |
|  |  | admin | . 04434763 | . 10429531 | 1.000 | -. 2860099 | . 3747051 |
|  |  | semi- <br> professional | . 12747128 | . 11182487 | . 981 | -. 2267363 | . 4816788 |
|  |  | professional | . 27133692 | . 09442462 | . 114 | -. 0277550 | . 5704288 |
|  |  | manager | . 24208798 | . 09490584 | . 242 | -. 0585282 | . 5427042 |
|  |  | retired/other | . 18301886 | . 10072035 | . 724 | -. 1360149 | . 5020526 |
|  | admin | traditional | -. 31331679 | . 16013024 | . 630 | -. 8205326 | . 1938990 |
|  |  | processor | -. 17771041 | . 23701883 | . 999 | -. 9284724 | . 5730515 |
|  |  | sales | -. 09607246 | . 13914184 | 1.000 | -. 5368070 | . 3446621 |
|  |  | individual | -. 15277207 | . 20535647 | . 999 | -. 8032428 | . 4976987 |
|  |  | skilled | -. 04434763 | . 10429531 | 1.000 | -. 3747051 | . 2860099 |
|  |  | semi- <br> professiona | . 08312364 | . 09966822 | . 998 | -. 2325775 | . 3988247 |
|  |  | professional | . 22698929 | . 07965526 | . 121 | -. 0253203 | .4792989 |


|  | manager retired/other | $\begin{aligned} & .19774034 \\ & .13867122 \end{aligned}$ | $\begin{aligned} & .08022513 \\ & .08702609 \\ & \hline \end{aligned}$ | $\begin{array}{r} .288 \\ .852 \\ \hline \end{array}$ | $\begin{array}{r} -.0563744 \\ -.1369857 \\ \hline \end{array}$ | $\begin{aligned} & .4518551 \\ & .4143281 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| semi- | traditional | -. 39644044 | . 16513323 | . 326 | -. 9195033 | . 1266224 |
| professional | processor | -. 26083405 | . 24042716 | . 986 | -1.0223919 | . 5007238 |
|  | sales | -. 17919611 | . 14487146 | . 966 | -. 6380794 | . 2796872 |
|  | individual | -. 23589572 | . 20928108 | . 982 | -. 8987978 | . 4270063 |
|  | skilled | -. 12747128 | . 11182487 | . 981 | -. 4816788 | . 2267363 |
|  | admin | -. 08312364 | . 09966822 | . 998 | -. 3988247 | . 2325775 |
|  | professional | . 14386565 | . 08928745 | . 843 | -. 1389542 | . 4266855 |
|  | manager | . 11461670 | . 08979622 | . 959 | -. 1698146 | . 3990480 |
|  | retired/other | . 05554758 | . 09592096 | 1.000 | -. 2482840 | . 3593792 |
| professional | traditional | -. $5403060{ }^{*}$ | . 15388369 | . 016 | -1.0277358 | -. 0528764 |
|  | processor | -. 40469970 | . 23284420 | . 774 | -1.1422384 | . 3328390 |
|  | sales | -. 32306176 | . 13190507 | . 297 | -. 7408737 | . 0947502 |
|  | individual | -. 37976136 | . 20052375 | . 673 | -1.0149244 | . 2554017 |
|  | skilled | -. 27133692 | . 09442462 | . 114 | -. 5704288 | . 0277550 |
|  | admin | -. 22698929 | . 07965526 | . 121 | -. 4792989 | . 0253203 |
|  | semiprofessional | -. 14386565 | . 08928745 | . 843 | -. 4266855 | . 1389542 |
|  | manager | -. 02924895 | . 06689220 | 1.000 | -. 2411314 | . 1826335 |
|  | retired/other | -. 08831807 | . 07491353 | . 976 | -. 3256082 | . 1489720 |
| manager | traditional | -. 51105714 | . 15417944 | . 032 | -. 9994236 | -. 0226906 |
|  | processor | -. 37545075 | . 23303977 | . 843 | -1.1136089 | . 3627074 |
|  | sales | -. 29381281 | . 13224998 | . 442 | -. 7127173 | . 1250917 |
|  | individual | -. 35051242 | . 20075081 | . 769 | -. 9863947 | . 2853698 |
|  | skilled | -. 24208798 | . 09490584 | . 242 | -. 5427042 | . 0585282 |
|  | admin | -. 19774034 | . 08022513 | . 288 | -. 4518551 | . 0563744 |
|  | semiprofessional | -. 11461670 | . 08979622 | . 959 | -. 3990480 | . 1698146 |
|  | professional | . 02924895 | . 06689220 | 1.000 | -. 1826335 | . 2411314 |
|  | retired/other | -. 05906912 | . 07551919 | . 999 | -. 2982777 | . 1801394 |
| retired/other | traditional | -. 45198802 | . 15782513 | . 117 | -. 9519023 | . 0479263 |
|  | processor | -. 31638163 | . 23546763 | . 943 | -1.0622301 | . 4294669 |
|  | sales | -. 23474369 | . 13648270 | . 784 | -. 6670554 | . 1975680 |
|  | individual | -. 29144330 | . 20356413 | . 917 | -. 9362368 | . 3533502 |
|  | skilled | -. 18301886 | . 10072035 | . 724 | -. 5020526 | . 1360149 |
|  | admin | -. 13867122 | . 08702609 | . 852 | -. 4143281 | . 1369857 |
|  | semiprofessional | -. 05554758 | . 09592096 | 1.000 | -. 3593792 | . 2482840 |
|  | professional | . 08831807 | . 07491353 | . 976 | -. 1489720 | . 3256082 |
|  | manager | . 05906912 | . 07551919 | . 999 | -. 1801394 | . 2982777 |

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
| main occupation | N | 1 | 2 |
| professional | 451 | -.1710314 |  |
| individual | 26 | -.0675523 | -.0675523 |
| traditional | 46 | -.0509892 | -.0509892 |
| manager | 433 | -.0401193 | -.0401193 |
| sales | 65 | -.0309255 | -.0309255 |
| semi-professional | 171 | .0006238 | .0006238 |
| admin | 238 | .0095952 | .0095952 |
| skilled | 147 | .1004988 | .1004988 |
| retired/other | 289 | .2578851 | .2578851 |
| processor | 19 |  | .4698091 |
| Sig. |  | .285 | .062 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=65.335$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 2 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| main occupation | N | Subset for alpha $=0.05$ |  |
| :---: | :---: | :---: | :---: |
|  |  | 1 | 2 |
| traditional | 46 | -. 4804086 |  |
| individual | 26 | -. 0846621 | -. 0846621 |
| admin | 238 | -. 0828637 | -. 0828637 |
| sales | 65 | -. 0428664 | -. 0428664 |
| retired/other | 289 | -. 0394705 | -. 0394705 |
| skilled | 147 | -. 0267578 | -. 0267578 |
| professional | 451 | . 0109416 | . 0109416 |
| processor | 19 | . 0521853 | . 0521853 |
| semi-professional | 171 | . 0598110 | . 0598110 |
| manager | 433 |  | . 1062227 |
| Sig. |  | . 062 | . 985 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=65.335$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 3 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

| main occupation |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| traditional | 46 | -.2857699 |  |
| sales | 65 | -.0941416 | -.0941416 |
| individual | 26 | -.0819861 | -.0819861 |
| manager | 433 | -.0439574 | -.0439574 |
| admin | 238 | -.0355908 | -.0355908 |
| professional | 451 | -.0006226 | -.0006226 |
| skilled | 147 | .0129707 | .0129707 |
| semi-professional | 171 | .0255766 | .0255766 |
| retired/other | 289 | .1191492 | .1191492 |
| processor | 19 |  | .4456214 |
| Sig. |  | .378 | .063 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=65.335$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1
Tukey HSD ${ }^{\mathrm{a}, \mathrm{b}}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| main occupation | N | 1 |
| professional | 451 | -.1167724 |
| manager | 433 | -.0875234 |
| retired/other | 289 | -.0284543 |
| semi-professional | 171 | .0270933 |
| admin | 238 | .1102169 |
| skilled | 147 | .1545646 |
| sales | 65 | .2062894 |
| individual | 26 | .2629890 |
| processor | 19 | .2879273 |
| traditional | 46 | .4235337 |
| Sig. |  | .060 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=65.335$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

### 4.3 ANOVA for Others in Household by Factor Group

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY houseage1940
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

| ANOVA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Sum of Squares | df | Mean Square |
| REGR factor score 1 for analysis 1 | Between Groups | 2.090 | 4 | . 523 |
|  | Within Groups | 769.046 | 816 | . 942 |
|  | Total | 771.136 | 820 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 5.491 | 4 | 1.373 |
|  | Within Groups | 751.252 | 816 | . 921 |
|  | Total | 756.743 | 820 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 5.682 | 4 | 1.420 |
|  | Within Groups | 862.608 | 816 | 1.057 |
|  | Total | 868.290 | 820 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 2.411 | 4 | . 603 |
|  | Within Groups | 788.084 | 816 | . 966 |
|  | Total | 790.495 | 820 |  |

ANOVA

|  | ANOVA | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score <br> analysis 1 for | Between Groups <br> Within Groups <br> Total | .554 | .696 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.491 | .203 |
| REGR factor score <br> analysis 1 for | Between Groups <br> Within Groups <br> Total | 1.344 | .252 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | .624 | .645 |

## Post Hoc Tests

## Multiple Comparisons

Tukey HSD

| Dependent Variable | (I) others in house aged 19-40 | (J) others in house aged 19-40 | Mean Difference (IJ) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper <br> Bound |
| REGR factor score 1 for analysis 1 | 1 | 2 | -. 07789424 | . 09910330 | . 935 | -. 3488314 | . 1930429 |
|  |  | 3 | -. 03569933 | . 18413372 | 1.000 | -. 5391000 | . 4677013 |
|  |  | 4 | -. 44260651 | . 34527377 | . 702 | -1.3865458 | . 5013328 |
|  |  | 6 | -. 12239809 | . 68748524 | 1.000 | -2.0019047 | 1.7571085 |
|  | 2 | 1 | . 07789424 | . 09910330 | . 935 | -. 1930429 | . 3488314 |
|  |  | 3 | . 04219490 | . 20227056 | 1.000 | -. 5107899 | . 5951797 |
|  |  | 4 | -. 36471227 | . 35527754 | . 843 | -1.3360007 | . 6065762 |
|  |  | 6 | -. 04450385 | . 69256343 | 1.000 | -1.9378936 | 1.8488859 |
|  | 3 | 1 | . 03569933 | . 18413372 | 1.000 | -. 4677013 | . 5391000 |
|  |  | 2 | -. 04219490 | . 20227056 | 1.000 | -. 5951797 | . 5107899 |
|  |  | 4 | -. 40690718 | . 38769304 | . 832 | -1.4668159 | . 6530016 |
|  |  | 6 | -. 08669875 | . 70973789 | 1.000 | -2.0270415 | 1.8536440 |
|  | 4 | 1 | . 44260651 | . 34527377 | . 702 | -. 5013328 | 1.3865458 |
|  |  | 2 | . 36471227 | . 35527754 | . 843 | -. 6065762 | 1.3360007 |



## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| others in house aged 19-40 |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
|  | N | 1 |
| 1 | 670 | -.0984167 |
| 3 | 29 | -.0621773 |
| 2 | 112 | -.0205224 |
| 6 | 2 | .0239814 |
| 4 | 8 | .3441898 |
| Sig. |  | .904 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=7.464$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 2 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| others in house aged 19-40 | N | 1 |
| 4 | 8 | -.5306927 |
| 3 | 29 | -.238789 |
| 6 | 2 | -.2310986 |
| 1 | 670 | -.0303680 |
| 2 | 112 | .1091770 |
| Sig. |  | .699 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=7.464$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| others in house aged 19-40 | N | 1 |
| 2 | 112 | -.1493878 |
| 4 | 8 | -.0411325 |
| 3 | 29 | .0126576 |
| 1 | 670 | .0340876 |
| 6 | 2 | 1.1114482 |
| Sig. |  | .125 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=7.464$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 4 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

| others in house aged 19-40 |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
|  | N | 1 |
| 4 | 8 | -.1742540 |
| 1 | 670 | .0376939 |
| 3 | 29 | .1532758 |
| 2 | 112 | .1618869 |
| 6 | 2 | .3978469 |
| Sig. |  | .794 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=7.464$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

### 4.4 ANOVA for Ages in Household (41-65) by Factor Group

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY houseage4165
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

Oneway

ANOVA

|  |  | Sum of Squares | df | Mean Square |
| :--- | :--- | ---: | ---: | ---: |
| REGR factor score 1 for | Between Groups | 2.073 | 3 | .691 |
| analysis 1 | Within Groups | 920.323 | 903 | 1.019 |
|  | Total | 922.396 | 906 |  |
| REGR factor score 2 for | Between Groups | 3.796 | 3 | 1.265 |
| analysis 1 | Within Groups | 946.538 | 903 | 1.048 |
|  | Total | 950.334 | 906 |  |
| REGR factor score 3 for | Between Groups | 6.591 | 3 | 2.197 |
| analysis 1 | Within Groups | 888.240 | 903 | .984 |
|  | Total | 894.831 | 906 |  |
| REGR factor score 4 for | Between Groups | 3.445 | 3 | 1.148 |
| analysis 1 | Within Groups | 893.802 | 903 | .990 |
|  | Total | 897.247 | 906 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | .678 | .566 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.207 | .306 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 2.233 | .083 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.160 | .324 |

### 4.5 ANOVA for Ages in Household (65+) by Factor Group

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY houseage65
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

| ANOVA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Sum of Squares | df | Mean Square |
| REGR factor score 1 for analysis 1 | Between Groups | . 234 | 1 | . 234 |
|  | Within Groups | 147.244 | 138 | 1.067 |
|  | Total | 147.478 | 139 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 2.848 | 1 | 2.848 |
|  | Within Groups | 150.044 | 138 | 1.087 |
|  | Total | 152.892 | 139 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 1.075 | 1 | 1.075 |
|  | Within Groups | 152.341 | 138 | 1.104 |
|  | Total | 153.416 | 139 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 2.027 | 1 | 2.027 |
|  | Within Groups | 154.583 | 138 | 1.120 |
|  | Total | 156.610 | 139 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score <br> analysis 1 for | Between Groups <br> Within Groups <br> Total | .219 | .640 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 2.620 | .108 |
| REGR factor score <br> analysis 1 for | Between Groups <br> Within Groups <br> Total | .974 | .325 |
| REGR factor score  <br> analysis 1 for Between Groups <br> Within Groups <br> Total |  | 1.810 | .181 |

### 4.6 Correlations for Number of Visits to Pubs, Cafes and Restaurants in the Past 6 Months by Factor Group

GET
FILE='F:1301109.sav'.
DATASET NAME DataSet 1 WINDOW=FRONT.
CORRELATIONS
/VARIABLES=pubeat cafeeat resteat FAC1_1 FAC2_1 FAC3_1 FAC4_1
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

Correlations

Correlations

| Correlations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Pub 6 months | Cafe 6 months | Restaurant 6 months |
| Pub 6 months | Pearson Correlation Sig. (2-tailed) <br> N | 1 2173 | $\begin{array}{r} .247 \\ .000 \\ 2173 \end{array}$ | $\begin{array}{r} .304 \\ .000 \\ 2173 \end{array}$ |
| Cafe 6 months | Pearson Correlation Sig. (2-tailed) N | $\begin{gathered} \hline 247 \\ .000 \\ 2173 \end{gathered}$ | 1 2173 | $\begin{array}{r} \hline 270 \\ .000 \\ 2173 \\ \hline \end{array}$ |
| Restaurant 6 months | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} \hline .304 \\ .000 \\ 2173 \end{array}$ | $\begin{gathered} .270 \\ .000 \\ 2173 \end{gathered}$ | 1 2173 |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .038 \\ .101 \\ 1842 \\ \hline \end{array}$ | $\begin{array}{r} -.041 \\ .078 \\ 1842 \end{array}$ | $\begin{array}{r} -.017 \\ .456 \\ 1842 \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .035 \\ .134 \\ 1842 \end{array}$ | $\begin{array}{r} .041 \\ .079 \\ 1842 \\ \hline \end{array}$ | $\begin{array}{r} .015 \\ .513 \\ 1842 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .010 \\ .671 \\ 1842 \end{array}$ | $\begin{gathered} \hline .053 \\ .023 \\ 1842 \end{gathered}$ | $\begin{array}{r} .039 \\ .091 \\ 1842 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) <br> N | $\begin{array}{r} \hline-.111 \\ .000 \\ 1842 \\ \hline \end{array}$ | $\begin{array}{r} \hline .039 \\ .095 \\ 1842 \\ \hline \end{array}$ | $\begin{array}{r\|} \hline-.176 \\ .000 \\ 1842 \\ \hline \end{array}$ |

Correlations

|  |  | REGR factor score 1 for analysis 1 | REGR factor score 2 for analysis 1 |
| :---: | :---: | :---: | :---: |
| Pub 6 months | Pearson Correlation | . 038 | . 035 |
|  | Sig. (2-tailed) | . 101 | . 134 |
|  | N | 1842 | 1842 |
| Cafe 6 months | Pearson Correlation | -. 041 | . 041 |
|  | Sig. (2-tailed) | . 078 | . 079 |
|  | N | 1842 | 1842 |
| Restaurant 6 months | Pearson Correlation | -. 017 | . 015 |
|  | Sig. (2-tailed) | . 456 | . 513 |
|  | N | 1842 | 1842 |
| REGR factor score 1 for analysis 1 | Pearson Correlation | 1 | . 000 |
|  | Sig. (2-tailed) |  | 1.000 |
|  | N | 1885 | 1885 |
| REGR factor score 2 for analysis 1 | Pearson Correlation | . 000 | 1 |
|  | Sig. (2-tailed) | 1.000 |  |
|  | N | 1885 | 1885 |
| REGR factor score 3 for analysis 1 | Pearson Correlation | . 000 | . 000 |
|  | Sig. (2-tailed) | 1.000 | 1.000 |
|  | N | 1885 | 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation | . 000 | . 000 |
|  | Sig. (2-tailed) | 1.000 | 1.000 |
|  | N | 1885 | 1885 |


|  |  | REGR factor score 3 for analysis 1 | REGR factor score 4 for analysis 1 |
| :---: | :---: | :---: | :---: |
| Pub 6 months | Pearson Correlation | . 010 | -.111" |
|  | Sig. (2-tailed) | . 671 | . 000 |
|  | N | 1842 | 1842 |
| Cafe 6 months | Pearson Correlation | . 053 | -. 039 |
|  | Sig. (2-tailed) | . 023 | . 095 |
|  | N | 1842 | 1842 |
| Restaurant 6 months | Pearson Correlation | . 039 | -.176" |
|  | Sig. (2-tailed) | . 091 | . 000 |
|  | N | 1842 | 1842 |
| REGR factor score 1 for analysis 1 | Pearson Correlation | . 000 | . 000 |
|  | Sig. (2-tailed) | 1.000 | 1.000 |
|  | N | 1885 | 1885 |
| REGR factor score 2 for analysis 1 | Pearson Correlation | . 000 | . 000 |
|  | Sig. (2-tailed) | 1.000 | 1.000 |
|  | N | 1885 | 1885 |
| REGR factor score 3 for analysis 1 | Pearson Correlation | 1 | . 000 |
|  | Sig. (2-tailed) |  | 1.000 |
|  | N | 1885 | 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation | . 000 | 1 |
|  | Sig. (2-tailed) | 1.000 |  |
|  | N | 1885 | 1885 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

### 4.7 Correlations for the Number of Dining Establishments within a 10 Minute Walk from Home

CORRELATIONS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1 walkrest walkpub walkfast
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE

## Correlations

|  |  | REGR factor score 1 for analysis 1 | REGR factor score 2 for analysis 1 | REGR factor score 3 for analysis 1 |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | 1 1885 | $\begin{array}{r} \hline .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | 1 1885 | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | 1 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| restaurants 10 min walk | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} -.030 \\ .189 \\ 1860 \\ \hline \end{array}$ | $\begin{array}{r} .012 \\ .597 \\ 1860 \\ \hline \end{array}$ | $\begin{array}{r} .010 \\ .657 \\ 1860 \\ \hline \end{array}$ |
| pub 10 minute walk | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .012 \\ .589 \\ 1879 \\ \hline \end{array}$ | $\begin{array}{r} -.007 \\ .763 \\ 1879 \\ \hline \end{array}$ | $\begin{array}{r} .014 \\ .534 \\ 1879 \\ \hline \end{array}$ |
| fastfood 10 minute walk | Pearson Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} \hline .015 \\ .532 \\ 1855 \end{array}$ | $\begin{array}{r} \hline .018 \\ .447 \\ 1855 \end{array}$ | $\begin{array}{r} \hline .011 \\ .643 \\ 1855 \end{array}$ |

Correlations

|  |  | REGR factor score 4 for analysis 1 | restaurants 10 min walk |
| :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) <br> N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} -.030 \\ .189 \\ 1860 \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .012 \\ .597 \\ 1860 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} \hline .010 \\ .657 \\ 1860 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | 1 1885 | $\begin{array}{r} \hline-.067 \\ .004 \\ 1860 \\ \hline \end{array}$ |
| restaurants 10 min walk | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} \hline-.067 \\ .004 \\ 1860 \\ \hline \end{array}$ | 1 2186 |
| pub 10 minute walk | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} \hline .041 \\ .074 \\ 1879 \end{array}$ | $\begin{array}{r} \hline .644 \\ .000 \\ 2178 \\ \hline \end{array}$ |
| fastfood 10 minute walk | Pearson Correlation Sig. (2-tailed) <br> N | $\begin{array}{r} \hline .002 \\ .931 \\ 1855 \\ \hline \end{array}$ | $\begin{array}{r} \hline .549 \\ .000 \\ 2169 \end{array}$ |


|  |  | pub 10 minute walk | fastfood 10 minute walk |
| :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .012 \\ .589 \\ 1879 \end{array}$ | $\begin{array}{r} -.015 \\ .532 \\ 1855 \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} -.007 \\ .763 \\ 1879 \\ \hline \end{array}$ | $\begin{array}{r} \hline-.018 \\ .447 \\ 1855 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .014 \\ .534 \\ 1879 \\ \hline \end{array}$ | $\begin{array}{r} .011 \\ .643 \\ 1855 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | ```Pearson Correlation Sig. (2-tailed) N``` | $\begin{array}{r} \hline .041 \\ .074 \\ 1879 \\ \hline \end{array}$ | $\begin{array}{r} \hline .002 \\ .931 \\ 1855 \\ \hline \end{array}$ |
| restaurants 10 min walk | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} \hline .644 \\ .000 \\ 2178 \end{array}$ | $\begin{array}{r} \hline .549 \\ .000 \\ 2169 \end{array}$ |
| pub 10 minute walk | Pearson Correlation Sig. (2-tailed) N | 1 2210 | $\begin{array}{r} \hline .557 \\ .000 \\ 2174 \\ \hline \end{array}$ |
| fastfood 10 minute walk | Pearson Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .557 \\ .000 \\ 2174 \end{array}$ | 1 2178 |

**. Correlation is significant at the 0.01 level (2-tailed).

### 4.8 T-tests for Activities by Factor Group

T-TEST GROUPS=cultural(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

T-test

Group Statistics

|  | Cultural Events | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | No | 1141 | . 0266059 | . 99523038 | . 02946326 |
|  | Yes | 744 | -. 0408029 | 1.00657492 | . 03690283 |
| REGR factor score 2 for analysis 1 | No | 1141 | -. 0197634 | 1.04861576 | . 03104371 |
|  | Yes | 744 | . 0303092 | . 92033447 | . 03374110 |
| REGR factor score 3 for analysis 1 | No | 1141 | -. 0449361 | 1.02809258 | . 03043613 |
|  | Yes | 744 | . 0689141 | . 95187843 | . 03489756 |
| REGR factor score 4 for analysis 1 | No | 1141 | . 0638831 | . 98182756 | . 02906648 |
|  | Yes | 744 | -. 0979713 | 1.02015953 | . 03740086 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.409 | . 235 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 6.768 | . 009 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 4.879 | . 027 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 895 | . 344 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | 1.431 | 1883 | . 153 |
|  | Equal variances not assumed | 1.427 | 1575.032 | . 154 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -1.063 | 1883 | . 288 |
|  | Equal variances not assumed | -1.092 | 1726.836 | . 275 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -2.419 | 1883 | . 016 |
|  | Equal variances not assumed | -2.459 | 1672.520 | . 014 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 3.445 | 1883 | . 001 |
|  | Equal variances not assumed | 3.417 | 1544.371 | . 001 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .06740888 \\ & .06740888 \end{aligned}$ | $\begin{aligned} & .04710920 \\ & .04722184 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05007262 \\ & -.05007262 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04712067 \\ & \hline .04584946 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11385022 \\ & -.11385022 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04706172 \\ & .04630548 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .16185440 \\ & .16185440 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04698699 \\ & .04736755 \end{aligned}$ |

## Independent Samples Test

|  |  | 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02498283 \\ & -.02521541 \\ & \hline \end{aligned}$ | $\begin{aligned} & .15980060 \\ & .16003317 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14248685 \\ & -.13999895 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04234160 \\ & .03985371 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.20614883 \\ & -.20467302 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.02155161 \\ & -.02302743 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .06970236 \\ & .06894290 \\ & \hline \end{aligned}$ | $\begin{aligned} & .25400644 \\ & .25476591 \end{aligned}$ |

## T-test

Group Statistics

|  | Camping | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | No | 1399 | . 0094472 | 1.00391203 | . 02684027 |
|  | Yes | 486 | -. 0271948 | . 98917468 | . 04486987 |
| REGR factor score 2 for analysis 1 | no | 1399 | . 0168219 | . 97547434 | . 02607996 |
|  | yes | 486 | -. 0484234 | 1.06702919 | . 04840143 |
| REGR factor score 3 for analysis 1 | no | 1399 | . 0055822 | . 99503424 | . 02660291 |
|  | yes | 486 | -. 0160690 | 1.01502193 | . 04604233 |
| REGR factor score 4 for analysis 1 | no | 1399 | . 0044202 | . 99624979 | . 02663541 |
|  | yes | 486 | -. 0127239 | 1.01164347 | . 04588908 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 015 | . 902 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.036 | . 309 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 032 | . 859 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 001 | . 970 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} .696 \\ .701 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 856.153 \\ \hline \end{array}$ | .487 .484 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 1.239 \\ & 1.187 \end{aligned}$ | $\begin{array}{r} 1883 \\ 784.563 \\ \hline \end{array}$ | $\begin{aligned} & .215 \\ & .236 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .411 \\ & .407 \end{aligned}$ | $\begin{array}{r} 1883 \\ 830.761 \\ \hline \end{array}$ | $\begin{aligned} & .681 \\ & .684 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} .326 \\ .323 \\ \hline \end{array}$ | 1883 834.000 | .745 .747 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error <br> Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .03664207 \\ & .03664207 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .05266088 \\ & .05228485 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .06524525 \\ & .06524525 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05264619 \\ & .05498057 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .02165128 \\ & .02165128 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05266529 \\ & .05317529 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .01714403 \\ & .01714403 \end{aligned}$ | $\begin{aligned} & .05266617 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 06663776 | . 13992189 |
|  | Equal variances not assumed | -. 06597943 | . 13926356 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 03800575 | . 16849625 |
|  | Equal variances not assumed | -. 04268117 | . 17317168 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 08163719 | . 12493974 |
|  | Equal variances not assumed | -. 08272243 | . 12602498 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -. 08614616 | . 12043423 |
|  | Equal variances not assumed | -. 08700075 | . 12128881 |

## T-test

Group Statistics

| Group Statistics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Community Work | N | Mean | Std. Deviation |
| REGR factor score 1 for analysis 1 | No | 1673 | . 0003500 | 1.00374322 |
|  | yes | 212 | -. 0027619 | . 97226322 |
| REGR factor score 2 for analysis 1 | No | 1673 | . 0044230 | . 99982028 |
|  | yes | 212 | -. 0349042 | 1.00309926 |
| REGR factor score 3 for analysis 1 | No | 1673 | -. 0094319 | 1.00095685 |
|  | yes | 212 | . 0744322 | . 99161270 |
| REGR factor score 4 for analysis 1 | No | 1673 | . 0043012 | . 99553758 |
|  | yes | 212 | -. 0339432 | 1.03633935 |

Group Statistics

| Group Statistics |  | Std. Error Mean |
| :--- | :--- | ---: |
| REGR factor score $\quad 1$ for | No | .02454001 |
| analysis 1 | yes | .06677531 |
| REGR factor score $\quad 2$ for | No | .02444410 |
| analysis 1 | yes | .06889314 |
| REGR factor score | 3 for | No |
| analysis 1 | yes | .02447188 |
| REGR factor score | 4 for | No |
| analysis 1 | yes | .06810424 |


| Independent Samples Test |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Levene's Test for Equality of Variances |  |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 006 | . 936 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.549 | . 213 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 252 | . 616 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 768 | . 381 |


| Independent Samples Test |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means |  |  |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .043 \\ & .044 \end{aligned}$ | $\begin{array}{r} 1883 \\ 271.219 \end{array}$ | $\begin{aligned} & .966 \\ & .965 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} .539 \\ .538 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 266.936 \\ \hline \end{array}$ | $\begin{aligned} & .590 \\ & .591 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.150 \\ & -1.159 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 268.441 \\ \hline \end{array}$ | $\begin{array}{r} .250 \\ .248 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .524 \\ & .508 \end{aligned}$ | $\begin{array}{r} 1883 \\ 262.779 \\ \hline \end{array}$ | .600 .612 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.13990327 \\ & -.13694842 \\ & \hline \end{aligned}$ | $\begin{aligned} & .14612712 \\ & .14317226 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10367706 \\ & -.10460103 \\ & \hline \end{aligned}$ | $\begin{aligned} & .18233138 \\ & .18325534 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.22682917 \\ & -.22634428 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05910089 \\ & .05861600 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10476043 \\ & -.10987136 \\ & \hline \end{aligned}$ | $\begin{aligned} & .18124922 \\ & .18636016 \\ & \hline \end{aligned}$ |

## T-test

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cooking | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | $\begin{aligned} & \text { No } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 260 \\ 1625 \\ \hline \end{array}$ | $\begin{array}{r} \hline-.0162891 \\ .0026063 \\ \hline \end{array}$ | $\begin{array}{r} 1.02677478 \\ .99594775 \\ \hline \end{array}$ | $\begin{aligned} & .06367787 \\ & .02470642 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | $\begin{aligned} & \text { No } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 260 \\ 1625 \\ \hline \end{array}$ | $\begin{array}{r} \hline .1824165 \\ .0291866 \\ \hline \end{array}$ | $\begin{array}{r} 1.29202315 \\ .94217321 \\ \hline \end{array}$ | $\begin{aligned} & .08012787 \\ & .02337244 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | $\begin{aligned} & \text { No } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 260 \\ 1625 \\ \hline \end{array}$ | $\begin{array}{r} \hline-1883083 \\ .0301293 \\ \hline \end{array}$ | $\begin{array}{r} 1.03451887 \\ .99137782 \\ \hline \end{array}$ | $\begin{aligned} & .06415814 \\ & .02459306 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | $\begin{aligned} & \text { No } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 260 \\ 1625 \\ \hline \end{array}$ | $\begin{array}{r} .1679842 \\ -.0268775 \\ \hline \end{array}$ | $\begin{array}{r} .96417721 \\ 1.00329294 \\ \hline \end{array}$ | $\begin{aligned} & .05979573 \\ & .02488863 \end{aligned}$ |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
|  |  | Sig. |  |
| REGR factor score <br> analysis 1 | F for | Equal variances assumed <br> Equal variances not assumed | .028 |
| REGR factor score <br> analysis 1 | Equal variances assumed <br> Equal variances not assumed | 30.466 | .866 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | .687 |
| REGR factor score <br> analysis 1 | 4 for | Equal variances assumed <br> Equal variances not assumed | .000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 283 | 1883 | . 777 |
|  | Equal variances not assumed | -. 277 | 341.613 | . 782 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -3.176 | 1883 | . 002 |
|  | Equal variances not assumed | -2.535 | 304.596 | . 012 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -3.279 | 1883 | . 001 |
|  | Equal variances not assumed | -3.179 | 339.534 | . 002 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 2.923 | 1883 | . 004 |
|  | Equal variances not assumed | 3.009 | 354.816 | . 003 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14992687 \\ & -.15324245 \\ & \hline \end{aligned}$ | $\begin{aligned} & .11213614 \\ & .11545172 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.34228798 \\ & -.37584817 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.08091835 \\ & -.04735816 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.34909945 \\ & -.35358879 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.08777577 \\ & -.08328643 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .06412363 \\ & .06748297 \\ & \hline \end{aligned}$ | $\begin{aligned} & .32559960 \\ & .32224027 \\ & \hline \end{aligned}$ |

## T-test

Group Statistics

|  | Computer/games | N | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1188 | -. 0291535 | 1.01033427 |
|  | yes | 697 | . 0496907 | . 98085770 |
| REGR factor score 2 for analysis 1 | no | 1188 | . 0255694 | . 95607465 |
|  | yes | 697 | -. 0435818 | 1.07002522 |
| REGR factor score 3 for analysis 1 | no | 1188 | . 0029535 | 1.00146853 |
|  | yes | 697 | -. 0050341 | . 99819026 |
| REGR factor score 4 for analysis 1 | no | 1188 | -. 0359868 | . 99281473 |
|  | yes | 697 | . 0613377 | 1.00989052 |

Group Statistics

|  | computer/games | Std. Error Mean |
| :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | . 02931277 |
|  | yes | . 03715263 |
| REGR factor score 2 for analysis 1 | no | . 02773854 |
|  | yes | . 04053010 |
| REGR factor score 3 for analysis 1 | no | . 02905555 |
|  | yes | . 03780915 |
| REGR factor score 4 for analysis 1 | no | . 02880448 |
|  | yes | . 03825233 |


|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 319 | . 572 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.870 | . 049 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 016 | . 899 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 285 | . 594 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.653 | 1883 | . 098 |
|  | Equal variances not assumed | -1.666 | 1492.987 | . 096 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | 1.450 | 1883 | . 147 |
|  | Equal variances not assumed | 1.408 | 1329.654 | . 159 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | . 167 | 1883 | . 867 |
|  | Equal variances not assumed | . 168 | 1461.853 | . 867 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -2.042 | 1883 | . 041 |
|  | Equal variances not assumed | -2.032 | 1437.986 | . 042 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.07884419 \\ & -.07884419 \end{aligned}$ | $\begin{aligned} & .04769045 \\ & .04732396 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .06915122 \\ & .06915122 \end{aligned}$ | $\begin{aligned} & .04769843 \\ & .04911329 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .00798759 \\ & .00798759 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04772469 \\ & .04768393 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.09732454 \\ & -.09732454 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04767232 \\ & .04788464 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.17237587 \\ & -.17167269 \\ & \hline \end{aligned}$ | $\begin{aligned} & .01468749 \\ & .01398432 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02439612 \\ & -.02719676 \\ & \hline \end{aligned}$ | $\begin{aligned} & .16269856 \\ & .16549920 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} \hline-.08561125 \\ -.08554864 \\ \hline \end{array}$ | $\begin{aligned} & .10158643 \\ & .10152381 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19082066 \\ & -.19125577 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.00382842 \\ & -.00339331 \\ & \hline \end{aligned}$ |

## T-test

## Group Statistics

|  | Crafts | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1296 | -. 0201866 | . 99141657 | . 02753935 |
|  | yes | 589 | . 0444175 | 1.01807267 | . 04194895 |
| REGR factor score 2 for analysis 1 | no | 1296 | -. 0313979 | 1.04882154 | . 02913393 |
|  | yes | 589 | . 0690860 | . 88002848 | . 03626094 |
| REGR factor score 3 for analysis 1 | no | 1296 | -. 0468070 | 1.01532582 | . 02820350 |
|  | yes | 589 | . 1029913 | . 95823933 | . 03948356 |
| REGR factor score 4 for analysis 1 | no | 1296 | -. 0365440 | 1.01091877 | . 02808108 |
|  | yes | 589 | . 0804093 | . 97155720 | . 04003232 |

Independent Samples Test

| Independent Samples Test |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | :---: | :---: | :---: | :---: |
|  |  | Levene's Test for Equality of <br> Variances |  |  |  |  |  |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed <br> Equal variances not assumed | F |  |  |  |  |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | .869 |  |  |  |  |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.300 | 1883 | . 194 |
|  | Equal variances not assumed | -1.287 | 1110.410 | . 198 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -2.024 | 1883 | . 043 |
|  | Equal variances not assumed | -2.160 | 1338.852 | . 031 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -3.021 | 1883 | . 003 |
|  | Equal variances not assumed | -3.087 | 1199.347 | . 002 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -2.356 | 1883 | . 019 |
|  | Equal variances not assumed | -2.392 | 1179.359 | . 017 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.06460409 \\ & -.06460409 \end{aligned}$ | $\begin{aligned} & .04968393 \\ & .05018098 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10048384 \\ & -.10048384 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04965226 \\ & .04651496 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14979834 \\ & -.14979834 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04958621 \\ & .04852205 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11695331 \\ & -.11695331 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04963311 \\ & .04889922 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.16204543 \\ & -.16306432 \end{aligned}$ | $\begin{aligned} & .03283725 \\ & .03385614 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.19786308 \\ & -.19173399 \end{aligned}$ | $\begin{aligned} & -.00310461 \\ & -.00923370 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.24704804 \\ & -.24499588 \end{aligned}$ | $\begin{aligned} & -.05254864 \\ & -.05460081 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.21429498 \\ & -.21289247 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.01961164 \\ & -.02101415 \end{aligned}$ |

## T-test

Group Statistics

|  | Cruise Holidays | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1730 | -. 0170707 | . 99790939 | . 02399209 |
|  | yes | 155 | . 1905312 | 1.00676545 | . 08086535 |
| REGR factor score 2 for analysis 1 | no | 1730 | . 0012240 | 1.00028934 | . 02404931 |
|  | yes | 155 | -. 0136619 | . 99989545 | . 08031353 |
| REGR factor score 3 for analysis 1 | no | 1730 | . 0049400 | . 99683053 | . 02396615 |
|  | yes | 155 | -. 0551368 | 1.03644386 | . 08324917 |
| REGR factor score 4 for analysis 1 | no | 1730 | -. 0016791 | 1.00227925 | . 02409715 |
|  | yes | 155 | . 0187409 | . 97717474 | . 07848856 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 010 | . 922 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 184 | . 668 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 229 | . 632 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 080 | . 777 |


| Independent Samples Test |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means |  |  |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -2.479 \\ & -2.461 \end{aligned}$ | $\begin{array}{r} 1883 \\ 182.180 \end{array}$ | $\begin{aligned} & .013 \\ & .015 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .178 \\ & .178 \end{aligned}$ | $\begin{array}{r} 1883 \\ 182.724 \end{array}$ | $\begin{aligned} & \hline .859 \\ & .859 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .716 \\ & .693 \end{aligned}$ | $\begin{array}{r} 1883 \\ 180.474 \end{array}$ | .474 .489 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.243 \\ -.249 \end{array}$ | $\begin{array}{r} 1883 \\ 184.254 \end{array}$ | .808 .804 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.20760191 \\ & -.20760191 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08372868 \\ & .08434942 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .01488597 \\ & .01488597 \end{aligned}$ | $\begin{aligned} & .08386455 \\ & .08383694 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .06007679 \\ & .06007679 \end{aligned}$ | $\begin{aligned} & .08385383 \\ & .08663026 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02042002 \\ & -.02042002 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08386393 \\ & .08210437 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.37181266 \\ & -.37402931 \\ & \hline \end{aligned}$ | $\begin{aligned} & -.04339115 \\ & -.04117451 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14959125 \\ & -.15052698 \\ & \hline \end{aligned}$ | $\begin{aligned} & .17936320 \\ & .18029892 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10437939 \\ & -.11086166 \\ & \hline \end{aligned}$ | $\begin{aligned} & .22453298 \\ & .23101525 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.18489603 \\ & -.18240558 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .14405599 \\ & .14156554 \end{aligned}$ |

## T-test

Group Statistics

|  | Cycling | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1561 | -. 0072512 | 1.00299681 | . 02538622 |
|  | yes | 324 | . 0349355 | . 98621839 | . 05478991 |
| REGR factor score 2 for analysis 1 | no | 1561 | . 0171977 | . 96947873 | . 02453787 |
|  | yes | 324 | -. 0828571 | 1.13362227 | . 06297901 |
| REGR factor score 3 for analysis 1 | no | 1561 | -. 0110453 | . 99811384 | . 02526263 |
|  | yes | 324 | . 0532152 | 1.00889436 | . 05604969 |
| REGR factor score 4 for analysis 1 | no | 1561 | . 0073725 | . 98885948 | . 02502840 |
|  | yes | 324 | -. 0355201 | 1.05289102 | . 05849395 |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed <br> Equal variances not assumed |  |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | .153 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | 2.714 |
| REGR factor score <br> analysis 1 | 4 for | Equal variances assumed <br> Equal variances not assumed | .022 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.691 \\ -.699 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 472.066 \\ \hline \end{array}$ | $\begin{array}{r} .490 \\ .485 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 1.640 \\ & 1.480 \end{aligned}$ | $\begin{array}{r} 1883 \\ 426.474 \\ \hline \end{array}$ | $\begin{array}{r} .101 \\ .140 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.053 \\ & -1.045 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 463.602 \\ \hline \end{array}$ | $\begin{aligned} & .293 \\ & .296 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .702 \\ & .674 \end{aligned}$ | $\begin{array}{r} 1883 \\ 448.981 \end{array}$ | $\begin{aligned} & .482 \\ & .501 \end{aligned}$ |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.16193497 \\ & -.16084408 \\ & \hline \end{aligned}$ | $\begin{array}{r} .07756160 \\ .07647072 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01962326 \\ & -.03279699 \\ & \hline \end{aligned}$ | $\begin{aligned} & .21973286 \\ & .23290659 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.18398876 \\ & -.18507416 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05546772 \\ & .05655311 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.07685512 \\ & -.08214437 \\ & \hline \end{aligned}$ | $\begin{aligned} & .16264043 \\ & .16792968 \\ & \hline \end{aligned}$ |

## T-test

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dieting | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 1622 | -. 0145102 | . 98594214 | . 02448082 |
|  | yes | 263 | 0894890 | 1.08037233 | . 06661861 |
| REGR factor score 2 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1622 \\ 263 \\ \hline \end{array}$ | $\begin{array}{r} \hline-.0113958 \\ .0702813 \\ \hline \end{array}$ | $\begin{array}{r} 1.01580810 \\ .89492918 \\ \hline \end{array}$ | $\begin{aligned} & .02522239 \\ & .05518370 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1622 \\ 263 \\ \hline \end{array}$ | $\begin{array}{r} -.0072025 \\ .0444200 \\ \hline \end{array}$ | $\begin{array}{r} 1.01026331 \\ .93480723 \\ \hline \end{array}$ | $\begin{array}{r} .02508471 \\ .05764268 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | no | 1622 263 | $\begin{array}{r} \hline-.0090420 \\ .0557645 \end{array}$ | 1.00110902 .99320612 | .02485741 .06124371 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.844 | . 092 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 5.183 | . 023 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.692 | . 101 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 004 | . 949 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.565 | 1883 | . 118 |
|  | Equal variances not assumed | -1.465 | 336.547 | . 144 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -1.229 | 1883 | . 219 |
|  | Equal variances not assumed | -1.346 | 380.219 | . 179 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 776 | 1883 | . 438 |
|  | Equal variances not assumed | -. 821 | 368.495 | . 412 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -. 975 | 1883 | . 330 |
|  | Equal variances not assumed | -. 980 | 353.880 | . 328 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{\|c\|} \hline-10399923 \\ -.10399923 \end{array}$ | $\begin{aligned} & .06644853 \\ & .07097429 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{gathered} -.08167710 \\ -.08167710 \end{gathered}$ | $\begin{aligned} & .06646509 \\ & .06067462 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.05162255 \\ -.05162255 \\ \hline \end{array}$ | $\begin{array}{r} .06648109 \\ .06286431 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.06480652 \\ & -.06480652 \end{aligned}$ | $\begin{aligned} & .06647496 \\ & .06609602 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.23431972 \\ & -.24360835 \end{aligned}$ | $.02632126$ $.03560989$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.21203007 \\ -.20097692 \\ \hline \end{array}$ | $\begin{aligned} & .04867587 \\ & .03762272 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} \hline-18200690 \\ -.17524035 \\ \hline \end{array}$ | $\begin{array}{r} .07876180 \\ .07199525 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | -.19517885 -.19479691 | $\begin{aligned} & \hline .06556581 \\ & .06518387 \\ & \hline \end{aligned}$ |

## T-test

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | DIY | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1548 \\ 337 \\ \hline \end{array}$ | $\begin{array}{r} \hline .0316967 \\ .1455978 \\ \hline \end{array}$ | $\begin{array}{r} .99074696 \\ 1.03048367 \\ \hline \end{array}$ | $\begin{aligned} & .02518125 \\ & .05613402 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1548 \\ 337 \\ \hline \end{array}$ | $\begin{array}{r} .0090397 \\ -.0415238 \\ \hline \end{array}$ | $\begin{array}{r} .96872693 \\ 1.13328741 \\ \hline \end{array}$ | $\begin{aligned} & .02462158 \\ & .06173410 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1548 \\ 337 \\ \hline \end{array}$ | $\begin{array}{r} -.0067527 \\ .0310182 \\ \hline \end{array}$ | $\begin{array}{r} \hline 1.00454060 \\ .97974223 \\ \hline \end{array}$ | $\begin{aligned} & .02553183 \\ & .05336996 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | $\begin{aligned} & \hline \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1548 \\ 337 \\ \hline \end{array}$ | $\begin{array}{r} \hline-.0230439 \\ .1058514 \\ \hline \end{array}$ | $\begin{aligned} & .99887513 \\ & \hline .99982208 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .02538784 \\ & .05446378 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
| REGR factor score <br> analysis 1 | for | Equal variances assumed <br> Equal variances not assumed | F |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | .553 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | 1.105 |
| REGR factor score <br> analysis 1 | 4 for | Equal variances assumed <br> Equal variances not assumed | .004 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -2.955 | 1883 | . 003 |
|  | Equal variances not assumed | -2.882 | 480.609 | . 004 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 841 | 1883 | . 400 |
|  | Equal variances not assumed | . 761 | 448.928 | . 447 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 628 | 1883 | . 530 |
|  | Equal variances not assumed | -. 638 | 501.686 | . 523 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -2.146 | 1883 | . 032 |
|  | Equal variances not assumed | -2.145 | 492.828 | . 032 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :--- | :--- | ---: | ---: |
|  |  | Mean Difference | Std. Error <br> Difference |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed | -.17729446 |
| REGR factor score <br> analysis 1 | Equal variances not assumed |  |  |$\quad .05998816$


| Independent Samples Test |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 29494472 | -. 05964419 |
|  | Equal variances not assumed | -. 29818245 | -. 05640646 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 06733711 | . 16846424 |
|  | Equal variances not assumed | -. 08005353 | . 18118066 |
| REGR factor score 3 foranalysis 1 | Equal variances assumed | -. 15568132 | . 08013961 |
|  | Equal variances not assumed | -. 15400807 | . 07846636 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -. 24667416 | -. 01111648 |
|  | Equal variances not assumed | -. 24696012 | -. 01083053 |

## T-test

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Eating out | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 243 | . 0758272 | 1.02772612 | . 06592866 |
|  | yes | 1642 | -. 0112217 | . 99566108 | . 02457112 |
| REGR factor score 2 foranalysis 1 | no | 243 | -. 1603928 | 1.31049435 | . 08406825 |
|  | yes | 1642 | . 0237366 | . 94363185 | . 02328713 |
| REGR factor score 3 for analysis 1 | no | 243 | -. 1054520 | 1.06131564 | . 06808343 |
|  | yes | 1642 | . 0156059 | . 98998991 | . 02443117 |
| REGR factor score 4 foranalysis 1 | no | 243 | . 2988255 | . 91666891 | . 05880434 |
|  | yes | 1642 | -. 0442233 | 1.00448156 | . 02478879 |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
|  |  | F | Sig. |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed <br> Equal variances not assumed | .214 |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | 24.089 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | 1.978 |
| REGR factor score <br> analysis 1 | Equal variances assumed <br> Equal variances not assumed | 3.132 | .000 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | 1.267 | 1883 | . 205 |
|  | Equal variances not assumed | 1.237 | 313.006 | . 217 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -2.683 | 1883 | . 007 |
|  | Equal variances not assumed | -2.111 | 280.319 | . 036 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.762 | 1883 | . 078 |
|  | Equal variances not assumed | -1.674 | 307.584 | . 095 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 5.023 | 1883 | . 000 |
|  | Equal variances not assumed | 5.376 | 334.094 | . 000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .08704890 \\ & .08704890 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06872208 \\ & .07035857 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.18412934 \\ & -.18412934 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06862029 \\ & .08723395 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12105788 \\ & -.12105788 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .06869473 \\ & .07233419 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .34304878 \\ & .34304878 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .06829532 \\ & .06381563 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.04773054 \\ & -.05138665 \end{aligned}$ | $\begin{aligned} & .22182834 \\ & .22548444 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.31870913 \\ & -.35584612 \end{aligned}$ | $\begin{aligned} & \hline-.04954955 \\ & -.01241256 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.25578367 \\ & -.26339034 \\ & \hline \end{aligned}$ | $\begin{aligned} & .01366791 \\ & .02127458 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .20910631 \\ & \hline .21751769 \end{aligned}$ | $\begin{aligned} & .47699125 \\ & .46857986 \end{aligned}$ |

## T-test

Group Statistics

|  | Trave I | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 682 | -. 0208299 | . 99317009 | . 03803045 |
|  | yes | 1203 | . 0118088 | 1.00407113 | . 02894887 |
| REGR factor score 2 for analysis 1 | no | 682 | -. 0798331 | 1.14827135 | . 04396958 |
|  | yes | 1203 | . 0452586 | . 90260867 | . 02602356 |
| REGR factor score 3 for analysis 1 | no | 682 | -. 0816337 | 1.05130492 | . 04025655 |
|  | yes | 1203 | . 0462795 | . 96709968 | . 02788293 |
| REGR factor score 4 for analysis 1 | no | 682 | . 2081297 | . 94891164 | . 03633570 |
|  | yes | 1203 | -. 1179921 | 1.00932166 | . 02910025 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 020 | . 888 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 19.913 | . 000 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.667 | . 056 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 4.689 | . 030 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 681 | 1883 | . 496 |
|  | Equal variances not assumed | -. 683 | 1427.323 | . 495 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -2.614 | 1883 | . 009 |
|  | Equal variances not assumed | -2.448 | 1160.950 | . 015 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -2.673 | 1883 | . 008 |
|  | Equal variances not assumed | -2.612 | 1319.130 | . 009 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 6.887 | 1883 | . 000 |
|  | Equal variances not assumed | 7.006 | 1487.937 | . 000 |

## Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.03263866 \\ & -.03263866 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04793939 \\ & .04779490 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12509169 \\ & -.12509169 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04785855 \\ & .05109354 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.12791315 \\ & -.12791315 \end{aligned}$ | $\begin{aligned} & .04785459 \\ & .04896986 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} .32612184 \\ .32612184 \\ \hline \end{array}$ | $\begin{aligned} & .04735260 \\ & .04655221 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.12665858 \\ & -.12639444 \end{aligned}$ | $\begin{aligned} & .06138125 \\ & .06111712 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.21895306 \\ & -.22533770 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.03123032 \\ & -.02484568 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.22176675 \\ & -.22398046 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.03405955 \\ & -.03184584 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .23325275 \\ & .23480691 \end{aligned}$ | $\begin{aligned} & .41899093 \\ & .41743677 \end{aligned}$ |

## T-test

Group Statistics

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fishing | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 1795 | -. 0190694 | . 99678254 | . 02352709 |
|  | yes | 90 | . 3803290 | . 99354339 | . 10472867 |
| REGR factor score 2 for analysis 1 | no | 1795 | . 0041647 | . 99044639 | . 02337754 |
|  | yes | 90 | -. 0830621 | 1.17780280 | . 12415132 |
| REGR factor score 3 for analysis 1 | no | 1795 | -. 0015283 | 1.00249809 | . 02366199 |
|  | yes | 90 | . 0304806 | . 95363196 | . 10052163 |
| REGR factor score 4 for analysis 1 | no | 1795 | . 0004033 | . 99228617 | . 02342096 |
|  | yes | 90 | -. 0080430 | 1.14932503 | . 12114950 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 050 | . 823 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 927 | . 336 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | .439 | . 508 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 5.638 | . 018 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -3.710 | 1883 | . 000 |
|  | Equal variances not assumed | -3.721 | 98.197 | . 000 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 807 | 1883 | . 420 |
|  | Equal variances not assumed | . 690 | 95.417 | . 492 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 296 | 1883 | . 767 |
|  | Equal variances not assumed | -. 310 | 99.121 | . 757 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | . 078 | 1883 | . 938 |
|  | Equal variances not assumed | . 068 | 95.770 | . 946 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.61053493 \\ -.61240342 \\ \hline \end{array}$ | $\begin{aligned} & \hline-.18826190 \\ & -.18639341 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.12464337 \\ -.16356210 \\ \hline \end{array}$ | $\begin{array}{r} .29909681 \\ .33801554 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.24391074 \\ -.23691394 \\ \hline \end{array}$ | $\begin{array}{r} .17989292 \\ .17289612 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{\|c\|} \hline-.20346017 \\ -.23649369 \\ \hline \end{array}$ | $\begin{aligned} & .22035267 \\ & .25338619 \end{aligned}$ |

## T-test

Group Statistics

|  | gardening | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1076 | -. 0443475 | 1.00258355 | . 03056430 |
|  | yes | 809 | . 0589838 | . 99410853 | . 03495099 |
| REGR factor score 2 for analysis 1 | no | 1076 | -. 0310473 | 1.01585190 | . 03096879 |
|  | yes | 809 | . 0412941 | . 97761555 | . 03437113 |
| REGR factor score 3 for analysis 1 | no | 1076 | -. 0491868 | 1.01848712 | . 03104913 |
|  | yes | 809 | . 0654203 | . 97163975 | . 03416103 |
| REGR factor score 4 for analysis 1 | no | 1076 | -. 0145075 | 1.01479981 | . 03093672 |
|  | yes | 809 | . 0192955 | . 98026143 | . 03446416 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 027 | . 869 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 4.855 | . 028 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.008 | . 316 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.235 | . 267 |


| Independent Samples Test |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means |  |  |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -2.223 \\ & -2.226 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 1747.987 \\ \hline \end{array}$ | $\begin{array}{r} .026 \\ .026 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.555 \\ & -1.564 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 1773.763 \\ \hline \end{array}$ | .120 .118 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-2.466 \\ & -2.483 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 1780.899 \\ \hline \end{array}$ | .014 .013 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.726 \\ & -.730 \\ & \hline \end{aligned}$ | 1883 1770.647 | .468 .466 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :--- | :--- | ---: | ---: |
|  |  |  | Std. Error <br> Difference |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed | -.10333133 |
| REGR factor score | 2 for | Equal variances not assumed | -.10333133 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19450068 \\ & -.19439558 \end{aligned}$ | $\begin{aligned} & -.01216198 \\ & -.01226707 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.16357175 \\ & -.16308088 \\ & \hline \end{aligned}$ | $\begin{aligned} & .01888888 \\ & \hline .01839802 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.20574889 \\ & -.20514647 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.02346526 \\ & -.02406768 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12507911 \\ & -.12463616 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .05747310 \\ & .05703015 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=golf(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F: 1301109. sav

Group Statistics

|  | golf | N | Mean | Std. Deviation | Std. Error Mean |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1764 | .0017436 | 1.00037280 | .02381840 |
| analysis 1 |  | yes | 121 | -.0254187 | .99833919 | .09075811 |
| REGR factor score | 2 for | no | 1764 | .0039504 | 1.00064120 | .02382479 |
| analysis 1 |  | yes | 121 | -.0575909 | .99293148 | .09026650 |
| REGR factor score | 3 for | no | 1764 | .0118010 | .99256528 | .02363251 |
| analysis 1 |  | yes | 121 | -.1720408 | 1.09274257 | .09934023 |
| REGR factor score | 4 for | no | 1764 | .0171721 | .99461305 | .02368126 |
| analysis 1 |  | yes | 121 | -.2503438 | 1.04817201 | .09528836 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 022 | . 882 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.088 | . 079 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 883 | . 347 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 275 | . 600 |


| Independent Samples Test |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means |  |  |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .289 \\ & .289 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 137.055 \\ \hline \end{array}$ | $\begin{aligned} & .773 \\ & .773 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .655 \\ & .659 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 137.256 \\ \hline \end{array}$ | $\begin{aligned} & .513 \\ & .511 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 1.958 \\ & 1.800 \end{aligned}$ | $\begin{array}{r} 1883 \\ 133.938 \\ \hline \end{array}$ | $\begin{aligned} & .050 \\ & .074 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline 2.852 \\ & 2.725 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 135.246 \\ \hline \end{array}$ | .004 .007 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :--- | :--- | ---: | ---: |
|  |  | Mean Difference | Std. Error <br> Difference |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed | .02716224 |
| REGR factor score <br> analysis 1 | 2 for | Equal variances not assumed | .09716224 |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.15718927 \\ & -.15838244 \\ & \hline \end{aligned}$ | $\begin{aligned} & .21151375 \\ & .21270691 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12279327 \\ & -.12306403 \\ & \hline \end{aligned}$ | $\begin{aligned} & .24587595 \\ & .24614671 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.00032649 \\ & -.01811997 \\ & \hline \end{aligned}$ | $\begin{aligned} & .36801002 \\ & .38580350 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .08355723 \\ & .07333557 \\ & \hline \end{aligned}$ | $\begin{aligned} & .45147462 \\ & .46169628 \end{aligned}$ |

T-TEST GROUPS=gourmfood(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
$/$ CRITERIA=CI(.95).

## T-test

[DataSet1] F:\301109.sav

Group Statistics

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | gourmet food | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 870 | -. 0315318 | . 98859273 | . 03351643 |
|  | yes | 1015 | . 0270273 | 1.00937730 | . 03168258 |
| REGR factor score 2 for analysis 1 | no | 870 | -. 0886569 | 1.15771969 | . 03925037 |
|  | yes | 1015 | . 0759917 | . 83475230 | . 02620141 |
| REGR factor score 3 for analysis 1 | no | 870 | -. 0806418 | 1.01631959 | . 03445646 |
|  | yes | 1015 | . 0691215 | . 98103213 | . 03079287 |
| REGR factor score 4 for analysis 1 | no | 870 | . 1452019 | . 91814790 | . 03112813 |
|  | yes | 1015 | -. 1244587 | 1.04973548 | . 03294935 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.080 | . 299 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 33.894 | . 000 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.341 | . 247 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 18.301 | . 000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.268 | 1883 | . 205 |
|  | Equal variances not assumed | -1.270 | 1849.974 | . 204 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -3.575 | 1883 | . 000 |
|  | Equal variances not assumed | -3.489 | 1551.937 | . 000 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -3.250 | 1883 | . 001 |
|  | Equal variances not assumed | -3.241 | 1817.719 | . 001 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 5.888 | 1883 | . 000 |
|  | Equal variances not assumed | 5.949 | 1882.227 | . 000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error <br> Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.05855913 \\ & -.05855913 \end{aligned}$ | $\begin{aligned} & .04619480 \\ & .04612090 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.16464858 \\ & -.16464858 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04605848 \\ & .04719222 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14976326 \\ & -.14976326 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04608546 \\ & .04621092 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .26966060 \\ & \hline .26966060 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .04579479 \\ & .04532792 \end{aligned}$ |


| Independent Samples Test |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14915751 \\ & -.14901360 \end{aligned}$ | $\begin{aligned} & .03203925 \\ & .03189534 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.25497961 \\ & -.25721582 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.07431755 \\ & -.07208134 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.24014719 \\ & -.24039534 \end{aligned}$ | $\begin{aligned} & \hline-.05937933 \\ & -.05913118 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .17984672 \\ & .18076235 \\ & \hline \end{aligned}$ | $\begin{aligned} & .35947447 \\ & .35855885 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=gym(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet 1] F:1301109.sav

Group Statistics

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | gym | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 1483 | . 0156156 | . 99310737 | . 02578847 |
|  | yes | 402 | -. 0576070 | 1.02422486 | . 05108369 |
| REGR factor score 2 for analysis 1 | no | 1483 | -. 0064193 | 1.02120145 | . 02651800 |
|  | yes | 402 | . 0236813 | . 91837189 | . 04580423 |
| REGR factor score 3 for analysis 1 | no | 1483 | -. 0002191 | . 99555413 | . 02585201 |
|  | yes | 402 | . 0008083 | 1.01748791 | . 05074768 |
| REGR factor score 4 for analysis 1 | no | 1483 | . 0229740 | 1.00474428 | . 02609065 |
|  | yes | 402 | -. 0847522 | . 97887198 | . 04882170 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 364 | . 546 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 833 | . 361 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 006 | . 940 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 465 | . 495 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score | 1 for | Equal variances assumed | 1.302 | 1883 |
| analysis 1 | Equal variances not assumed | 1.280 | 620.530 | .193 |
| REGR factor score | 2 for | Equal variances assumed | -.535 | 1883 |
| analysis 1 | Equal variances not assumed | -.569 | 693.770 | .201 |
| REGR factor score | 3 for | Equal variances assumed | -.018 | 1883 |
| analysis 1 | Equal variances not assumed | -.018 | 624.749 | .570 |
| REGR factor score | 4 for | Equal variances assumed | 1.917 | 1883 |
| analysis 1 | Equal variances not assumed | 1.946 | 648.440 | .985 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.03703768 \\ & -.03915359 \end{aligned}$ | $\begin{aligned} & .18348292 \\ & .18559884 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14040216 \\ & -.13401624 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08020096 \\ & .07381504 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11133733 \\ & -.11287005 \\ & \hline \end{aligned}$ | $\begin{aligned} & .10928256 \\ & .11081528 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.00247623 \\ & -.00097232 \\ & \hline \end{aligned}$ | $\begin{aligned} & .21792867 \\ & .21642476 \end{aligned}$ |

T-TEST GROUPS=horserid(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | horseriding | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1754 | -. 0081602 | . 99869467 | . 02384613 |
|  | yes | 131 | . 1092596 | 1.01486213 | . 08866892 |
| REGR factor score 2 for analysis 1 | no | 1754 | -. 0010850 | . 99288148 | . 02370733 |
|  | yes | 131 | . 0145268 | 1.09487965 | . 09566008 |
| REGR factor score 3 for analysis 1 | no | 1754 | -. 0102937 | 1.00462177 | . 02398765 |
|  | yes | 131 | . 1378253 | . 92854037 | . 08112695 |
| REGR factor score 4 for analysis 1 | no | 1754 | . 0084326 | . 99416861 | . 02373806 |
|  | yes | 131 | -. 1129069 | 1.07270519 | . 09372269 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 240 | . 625 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 184 | . 668 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 871 | . 351 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.598 | . 107 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.297 | 1883 | . 195 |
|  | Equal variances not assumed | -1.279 | 149.427 | . 203 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 172 | 1883 | . 863 |
|  | Equal variances not assumed | -. 158 | 146.418 | . 874 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.636 | 1883 | . 102 |
|  | Equal variances not assumed | -1.751 | 153.638 | . 082 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 1.340 | 1883 | . 180 |
|  | Equal variances not assumed | 1.255 | 147.169 | . 211 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11741984 \\ & -.11741984 \\ & \hline \end{aligned}$ | $\begin{aligned} & .09055798 \\ & .09181947 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01561177 \\ & -.01561177 \\ & \hline \end{aligned}$ | $\begin{aligned} & .09059768 \\ & .09855399 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14811900 \\ & -.14811900 \\ & \hline \end{aligned}$ | $\begin{aligned} & .09053407 \\ & .08459899 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .12133947 \\ & .12133947 \\ & \hline \end{aligned}$ | $\begin{aligned} & .09055524 \\ & .09668215 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.29502438 \\ & -.29885207 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06018471 \\ & .06401240 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19329418 \\ & -.21038386 \\ & \hline \end{aligned}$ | $\begin{aligned} & .16207064 \\ & .17916032 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.32567666 \\ & -.31524642 \\ & \hline \end{aligned}$ | $\begin{aligned} & .02943866 \\ & .01900842 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05625969 \\ & -.06972518 \\ & \hline \end{aligned}$ | $\begin{aligned} & .29893863 \\ & .31240413 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=photo(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:\301109.sav

Group Statistics

|  | photography | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1369 | -. 0110999 | . 99990448 | . 02702445 |
|  | yes | 516 | . 0294490 | 1.00062618 | . 04405011 |
| REGR factor score 2 for analysis 1 | no | 1369 | . 0138698 | . 94802860 | . 02562239 |
|  | yes | 516 | -. 0367980 | 1.12650044 | . 04959142 |
| REGR factor score 3 for analysis 1 | no | 1369 | -. 0138307 | 1.00188142 | . 02707788 |
|  | yes | 516 | . 0366941 | . 99502740 | . 04380364 |
| REGR factor score 4 for analysis 1 | no | 1369 | . 0135716 | . 99704108 | . 02694706 |
|  | yes | 516 | -. 0360068 | 1.00789358 | . 04437004 |



Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 785 | 1883 | . 433 |
|  | Equal variances not assumed | -. 785 | 926.224 | . 433 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 981 | 1883 | . 327 |
|  | Equal variances not assumed | . 908 | 805.058 | . 364 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 978 | 1883 | . 328 |
|  | Equal variances not assumed | -. 981 | 932.530 | . 327 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | . 960 | 1883 | . 337 |
|  | Equal variances not assumed | . 955 | 917.959 | . 340 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.04054888 \\ & -.04054888 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05166226 \\ & .05167913 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .05066778 \\ & .05066778 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05165751 \\ & .05581949 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05052479 \\ & -.05052479 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05165759 \\ & .05149728 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .04957838 \\ & .04957838 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05165807 \\ & .05191189 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14187017 \\ & -.14197066 \end{aligned}$ | $\begin{aligned} & .06077240 \\ & .06087289 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05064421 \\ & -.05890115 \end{aligned}$ | $\begin{aligned} & .15197976 \\ & .16023670 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.15183692 \\ & -.15158878 \end{aligned}$ | $\begin{aligned} & .05078734 \\ & .05053920 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05173470 \\ & -.05230138 \end{aligned}$ | $\begin{aligned} & .15089146 \\ & .15145815 \end{aligned}$ |

T-TEST GROUPS=read(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet 1] F:\301109.sav

Group Statistics

|  |  | reading | N | Mean | Std. Deviation | Std. Error Mean |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | No | 477 | -.0116237 | 1.02821807 | .04707887 |
| analysis 1 |  | Yes | 1408 | .0039379 | .99059942 | .02639956 |
| REGR factor score | 2 for | No | 477 | -.1751781 | 1.22136718 | .05592256 |
| analysis 1 | Yes | 1408 | .0593465 | .90577236 | .02413891 |  |
| REGR factor score | 3 for | no | 477 | -.0996695 | 1.05055138 | .04810144 |
| analysis 1 | yes | 1408 | .0337659 | .98037417 | .02612706 |  |
| REGR factor score | 4 for | no | 477 | .0911713 | 1.01822672 | .04662140 |
| analysis 1 | yes | 1408 | -.0308869 | .99221629 | .02644265 |  |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 366 | . 545 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 39.474 | . 000 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.211 | . 073 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 586 | . 444 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.294 \\ -.288 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 795.794 \\ \hline \end{array}$ | $\begin{aligned} & .769 \\ & .773 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-4.449 \\ & -3.850 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 662.126 \\ \hline \end{array}$ | $\begin{aligned} & .000 \\ & .000 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-2.522 \\ & -2.438 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 775.465 \end{array}$ | $\begin{aligned} & .012 \\ & .015 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 2.307 \\ & 2.277 \end{aligned}$ | $\begin{array}{r} 1883 \\ 803.383 \\ \hline \end{array}$ | .021 .023 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01556154 \\ & -.01556154 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05299080 \\ & .05397552 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.23452459 \\ & -.23452459 \end{aligned}$ | $\begin{aligned} & .05271569 \\ & .06090993 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.13343540 \\ & -.13343540 \end{aligned}$ | $\begin{aligned} & .05290272 \\ & .05473913 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .12205823 \\ & .12205823 \end{aligned}$ | $\begin{aligned} & .05291731 \\ & .05359822 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.11948840 \\ & -.12151276 \end{aligned}$ | $\begin{aligned} & .08836533 \\ & .09038969 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.33791191 \\ & -.35412449 \end{aligned}$ | $\begin{aligned} & -. .13113728 \\ & -.11492469 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.23718953 \\ & -.24088984 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.02968128 \\ & -.02598097 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .01827549 \\ & .01684915 \end{aligned}$ | $\begin{aligned} & .22584096 \\ & .22726730 \end{aligned}$ |

T-TEST GROUPS=running(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  |  | running | Group Statistics | Mean | Std. Deviation | Std. Error Mean |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1684 | .0185624 | 1.00266572 | .02443347 |
| analysis 1 |  | yes | 201 | -.1555177 | .96585108 | .06812588 |
| REGR factor score | 2 for | no | 1684 | .0030158 | 1.01120868 | .02464165 |
| analysis 1 |  | yes | 201 | -.0252665 | .90254223 | .06366042 |
| REGR factor score | 3 for | no | 1684 | -.0060531 | 1.00375870 | .02446010 |
| analysis 1 |  | yes | 201 | .0507135 | .96888024 | .06833954 |
| REGR factor score | 4 for | no | 1684 | .0276207 | .98877981 | .02409509 |
| analysis 1 |  | yes | 201 | -.2314096 | 1.06420609 | .07506331 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.331 | . 249 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 613 | . 434 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 670 | . 413 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.899 | . 089 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | 2.335 | 1883 | . 020 |
|  | Equal variances not assumed | 2.405 | 254.262 | . 017 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 379 | 1883 | . 705 |
|  | Equal variances not assumed | . 414 | 263.719 | . 679 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 761 | 1883 | . 447 |
|  | Equal variances not assumed | -. 782 | 254.030 | . 435 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 3.481 | 1883 | . 001 |
|  | Equal variances not assumed | 3.286 | 243.032 | . 001 |

Independent Samples Test

|  | T-test for Equality of Means |  |  |
| :--- | :--- | ---: | ---: |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .02789568 \\ & .03154943 \\ & \hline \end{aligned}$ | $\begin{aligned} & .32026455 \\ & .31661080 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11810816 \\ & -.10612792 \\ & \hline \end{aligned}$ | $\begin{aligned} & .17467269 \\ & .16269245 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.20314012 \\ & -.19971171 \end{aligned}$ | $\begin{aligned} & .08960693 \\ & .08617852 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .11310315 \\ & .10374178 \end{aligned}$ | $\begin{aligned} & .40495744 \\ & .41431881 \end{aligned}$ |

T-TEST GROUPS $=\operatorname{sailing}(01)$
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | sailing | N | Mean | Std. Deviation | Std. Error Mean |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1806 | .0034322 | .99509573 | .02341564 |
| analysis 1 |  | yes | 79 | -.0784638 | 1.11028606 | .12491694 |
| REGR factor score | 2 for | no | 1806 | -.0004356 | .99860312 | .02349817 |
| analysis 1 | yes | 79 | .0099591 | 1.03794070 | .11677745 |  |
| REGR factor score | 3 for | no | 1806 | -.0025146 | 1.00501892 | .02364914 |
| analysis 1 |  | yes | 79 | .0574852 | .88116881 | .09913924 |
| REGR factor score | 4 for | no | 1806 | .0049126 | .99837672 | .02349284 |
| analysis 1 |  | yes | 79 | -.1123056 | 1.03660760 | .11662747 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.357 | . 125 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 029 | . 865 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.987 | . 159 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 252 | . 616 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .712 \\ & .644 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 83.573 \\ \hline \end{array}$ | $\begin{array}{r} .476 \\ .521 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.090 \\ -.087 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 84.438 \end{array}$ | $\begin{array}{r} .928 \\ .931 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.522 \\ & -.589 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 87.117 \end{array}$ | $\begin{aligned} & \hline .602 \\ & .558 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} 1.020 \\ .985 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 84.452 \\ \hline \end{array}$ | $\begin{aligned} & .308 \\ & .327 \\ & \hline \end{aligned}$ |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14356281 \\ & -.17086039 \\ & \hline \end{aligned}$ | $\begin{array}{r} .30735497 \\ .33465255 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.23588357 \\ & -.24725636 \\ & \hline \end{aligned}$ | $\begin{aligned} & .21509399 \\ & \hline .22646678 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.28547276 \\ & -.26257478 \\ & \hline \end{aligned}$ | $\begin{aligned} & .16547317 \\ & .14257518 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10820887 \\ & -.11934839 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .34264518 \\ & .35378469 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=science ( 01 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | science/technology | N | Mean | Std. Deviation |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1671 | .0036039 | 1.00018814 |
| analysis 1 | yes | 214 | -.0281406 | 1.00042331 |  |
| REGR factor score 2 for | no | 1671 | .0140475 | .96777612 |  |
| analysis 1 | yes | 214 | -.1096889 | 1.21992295 |  |
| REGR factor score | 3 for | no | 1671 | .0032192 | 1.01011538 |
| analysis 1 | yes | 214 | -.0251369 | .91899932 |  |
| REGR factor score | 4 for | no | 1671 | .0102132 | .99897472 |
| analysis 1 | yes | 214 | -.0797492 | 1.00675497 |  |

Group Statistics

|  | science/technology | Std. Error Mean |
| :--- | :--- | ---: |
| REGR factor score 1 for | no | .02446772 |
| analysis 1 | yes | .06838753 |
| REGR factor score 2 for | no | .02367482 |
| analysis 1 | yes | .08339222 |
| REGR factor score 3 for | no | .02471057 |
| analysis 1 | yes | .06282150 |
| REGR factor score 4 for | no | .02443803 |
| analysis 1 | yes | .06882035 |


|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 300 | . 584 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 7.932 | . 005 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 4.652 | . 031 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 015 | . 904 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | . 437 | 1883 | . 662 |
|  | Equal variances not assumed | . 437 | 270.456 | . 662 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | 1.705 | 1883 | . 088 |
|  | Equal variances not assumed | 1.427 | 248.512 | . 155 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | . 390 | 1883 | . 696 |
|  | Equal variances not assumed | . 420 | 283.145 | . 675 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 1.239 | 1883 | . 215 |
|  | Equal variances not assumed | 1.232 | 269.557 | . 219 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .03174451 \\ & .03174451 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07261959 \\ & .07263280 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .12373642 \\ & .12373642 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07256728 \\ & .08668771 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .02835610 \\ & .02835610 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07262034 \\ & .06750669 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .08996249 \\ & .08996249 \end{aligned}$ | $\begin{aligned} & .07259368 \\ & .07303053 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11067882 \\ & -.11125306 \\ & \hline \end{aligned}$ | $\begin{aligned} & .17416785 \\ & .17474209 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01858430 \\ & -.04699985 \\ & \hline \end{aligned}$ | $\begin{aligned} & .26605715 \\ & .29447270 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11406869 \\ & -.10452255 \\ & \hline \end{aligned}$ | $\begin{aligned} & .17078090 \\ & .16123476 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05241002 \\ & -.05382028 \\ & \hline \end{aligned}$ | $\begin{aligned} & .23233501 \\ & .23374526 \end{aligned}$ |

T-TEST GROUPS=teamsport(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
$/$ CRITERIA $=\mathrm{CI}(.95)$

## T-test

[DataSet1] F:\301109.sav

Group Statistics

|  | sports team | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1725 | -. 0077232 | 1.00382775 | . 02416933 |
|  | yes | 160 | . 0832655 | . 95681754 | . 07564307 |
| REGR factor score 2 foranalysis 1 | no | 1725 | . 0024507 | 1.01282881 | . 02438605 |
|  | yes | 160 | -. 0264215 | . 85178491 | . 06733951 |
| REGR factor score 3 for analysis 1 | no | 1725 | -. 0018502 | . 99936863 | . 02406197 |
|  | yes | 160 | . 0199477 | 1.00972231 | . 07982556 |
| REGR factor score 4 for analysis 1 | no | 1725 | . 0123699 | . 99643831 | . 02399142 |
|  | yes | 160 | -. 1333633 | 1.03142199 | . 08154107 |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.101 | 1883 | . 271 |
|  | Equal variances not assumed | -1.146 | 192.937 | . 253 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 349 | 1883 | . 727 |
|  | Equal variances not assumed | . 403 | 203.116 | . 687 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 264 | 1883 | . 792 |
|  | Equal variances not assumed | -. 261 | 189.063 | . 794 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 1.764 | 1883 | . 078 |
|  | Equal variances not assumed | 1.715 | 187.591 | . 088 |

Independent Samples Test

|  |  | T-test for Eq | Means |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error <br> Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.09098863 \\ & -.09098863 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08263740 \\ & .07941052 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .02887215 \\ & .02887215 \end{aligned}$ | $\begin{aligned} & .08266132 \\ & .07161906 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02179792 \\ & -.02179792 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08266248 \\ & .08337324 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .14573319 \\ & .14573319 \end{aligned}$ | $\begin{aligned} & .08259575 \\ & \hline .08499726 \end{aligned}$ |


| Independent Samples Test |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | T-test for Equality of Means |  |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} \hline-.25305914 \\ -.24761283 \\ \hline \end{array}$ | $\begin{aligned} & .07108188 \\ & .06563557 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.13324527 \\ & -.11234001 \\ & \hline \end{aligned}$ | $\begin{aligned} & .19098958 \\ & .17008431 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.18391760 \\ & -.18625922 \\ & \hline \end{aligned}$ | $\begin{aligned} & .14032176 \\ & .14266338 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01625563 \\ & -.02194010 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .30772202 \\ & .31340648 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=tennis $\left(\begin{array}{ll}0 & 1)\end{array}\right.$
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:\301109.sav

Group Statistics

|  |  | tennis | N | Mean | Std. Deviation | Std. Error Mean |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1706 | .0121137 | 1.00305715 | .02428489 |
| analysis 1 |  | yes | 179 | -.1154527 | .96547968 | .07216334 |
| REGR factor score | 2 for | no | 1706 | -.0017978 | 1.00056975 | .02422467 |
| analysis 1 |  | yes | 179 | .0171345 | .99718291 | .07453295 |
| REGR factor score | 3 for | no | 1706 | .0098005 | .99388455 | .02406281 |
| analysis 1 |  | yes | 179 | -.0934056 | 1.05485597 | .07884364 |
| REGR factor score | 4 for | no | 1706 | .0230046 | .99828885 | .02416945 |
| analysis 1 |  | yes | 179 | -.2192509 | .99245041 | .07417923 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 085 | . 771 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 047 | . 829 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 437 | . 509 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 130 | . 719 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | 1.624 | 1883 | . 104 |
|  | Equal variances not assumed | 1.675 | 220.305 | . 095 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 241 | 1883 | . 810 |
|  | Equal variances not assumed | -. 242 | 217.340 | . 809 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | 1.314 | 1883 | . 189 |
|  | Equal variances not assumed | 1.252 | 212.511 | . 212 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 3.090 | 1883 | . 002 |
|  | Equal variances not assumed | 3.105 | 217.544 | . 002 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .12756646 \\ & .12756646 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07853276 \\ & .07614003 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01893233 \\ & -.01893233 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07858655 \\ & .07837088 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .10320602 \\ & .10320602 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07855177 \\ & .08243384 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .24225548 \\ & .24225548 \\ & \hline \end{aligned}$ | $\begin{array}{r} .07838922 \\ .07801743 \\ \hline \end{array}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02645393 \\ & -.02248958 \\ & \hline \end{aligned}$ | $\begin{aligned} & .28158684 \\ & .27762250 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.17305821 \\ & -.17339656 \\ & \hline \end{aligned}$ | $\begin{aligned} & .13519356 \\ & .13553190 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05085163 \\ & -.05928672 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .25726368 \\ & .26569877 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .08851662 \\ & .08848869 \end{aligned}$ | $\begin{aligned} & .39599435 \\ & .39602228 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=ntprops(0 1 )
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:\301109.sav

Group Statistics

|  | nat trust properties | N | Mean | Std. Deviation |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1358 | . 0020987 | 1.00126867 |
|  | yes | 527 | -. 0054080 | . 99765243 |
| REGR factor score 2 for analysis 1 | no | 1358 | -. 0106052 | 1.00657010 |
|  | yes | 527 | . 0273281 | . 98328605 |
| REGR factor score 3 for analysis 1 | no | 1358 | -. 0192648 | 1.01656204 |
|  | yes | 527 | . 0496426 | . 95514979 |
| REGR factor score 4 for analysis 1 | no | 1358 | . 0130083 | 1.01270292 |
|  | yes | 527 | -. 0335205 | . 96663283 |

Group Statistics

|  |  | nat trust properties | Std. Error Mean |
| :--- | :--- | :--- | ---: |
| REGR factor score | 1 for | no | .02717069 |
| analysis 1 | yes | .04345842 |  |
| REGR factor score | 2 for | no | .02731456 |
| analysis 1 | yes | .04283261 |  |
| REGR factor score | 3 for | no | .02758570 |
| analysis 1 | yes | .04160698 |  |
| REGR factor score | 4 for | no | .02748098 |
| analysis 1 | yes | .04210719 |  |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 043 | . 835 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.465 | 226 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.151 | . 283 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 441 | . 507 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | . 146 | 1883 | . 884 |
|  | Equal variances not assumed | . 146 | 960.687 | . 884 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 739 | 1883 | . 460 |
|  | Equal variances not assumed | -. 747 | 978.103 | . 455 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.343 | 1883 | . 179 |
|  | Equal variances not assumed | -1.380 | 1014.117 | . 168 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | . 907 | 1883 | . 365 |
|  | Equal variances not assumed | . 925 | 999.251 | . 355 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 09317279 | . 10818602 |
|  | Equal variances not assumed | -. 09307435 | . 10808758 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 13859871 | . 06273205 |
|  | Equal variances not assumed | -. 13762436 | . 06175770 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 16953928 | . 03172432 |
|  | Equal variances not assumed | -. 16686786 | . 02905290 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -. 05412918 | . 14718685 |
|  | Equal variances not assumed | -. 05214041 | . 14519808 |

T-TEST GROUPS=wildlife(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | wildlife/environment | N | Mean | Std. Deviation |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1383 | -.0069508 | 1.00360402 |
| analysis 1 |  | yes | 502 | .0191494 | .99074523 |
| REGR factor score 2 for | no | 1383 | -.0151506 | 1.02276389 |  |
| analysis 1 | yes | 502 | .0417397 | .93413042 |  |
| REGR factor score | 3 for | no | 1383 | -.0115314 | 1.02194092 |
| analysis 1 | yes | 502 | .0317688 | .93714589 |  |
| REGR factor score | 4 for | no | 1383 | .0005045 | 1.01255115 |
| analysis 1 | yes | 502 | -.0013898 | .96556438 |  |

Group Statistics

|  |  | Group Statistics | Std. Error Mean |
| :--- | :--- | :--- | ---: |
| REGR factor score | 1 for | no | .02698679 |
| analysis 1 | yes | .04421912 |  |
| REGR factor score | 2 for | no | .02750200 |
| analysis 1 | yes | .04169228 |  |
| REGR factor score | 3 for | no | .02747987 |
| analysis 1 | yes | .04182687 |  |
| REGR factor score | 4 for | no | .02722738 |
| analysis 1 | yes | .04309525 |  |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 013 | . 909 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 4.866 | . 028 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.215 | . 073 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.235 | . 135 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} \hline-.501 \\ -.504 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 898.522 \\ \hline \end{array}$ | .617 .615 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.092 \\ & -1.139 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 965.581 \\ \hline \end{array}$ | $\begin{aligned} & .275 \\ & .255 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.831 \\ & -.865 \end{aligned}$ | $\begin{array}{r} 1883 \\ 961.876 \end{array}$ | $\begin{aligned} & .406 \\ & .387 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .036 \\ & .037 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 927.232 \\ \hline \end{array}$ | .971 .970 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02610019 \\ & -.02610019 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05211696 \\ & .05180365 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05689038 \\ & -.05689038 \end{aligned}$ | $\begin{aligned} & .05210394 \\ & .04994603 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.04330026 \\ & -.04330026 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05211088 \\ & .05004628 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .00189430 \\ & .00189430 \end{aligned}$ | $\begin{aligned} & .05212042 \\ & .05097579 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12831326 \\ & -.12777042 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07611288 \\ & .07557005 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.15907791 \\ & -.15490567 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04529715 \\ & .04112491 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14550140 \\ & -.14151275 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05890088 \\ & .05491223 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10032554 \\ & -.09814698 \\ & \hline \end{aligned}$ | $\begin{aligned} & .10411415 \\ & .10193559 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=wine (0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet 1] F:\301109.sav

Group Statistics

|  |  | wines | N | Mean | Std. Deviation | Std. Error Mean |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | No | 1028 | -.0835156 | 1.02474539 | .03196093 |
| analysis 1 |  | Yes | 857 | .1001797 | .96053743 | .03281133 |
| REGR factor score | 2 for | No | 1028 | -.0688199 | 1.14961334 | .03585545 |
| analysis 1 |  | Yes | 857 | .0825517 | .77640182 | .02652138 |
| REGR factor score | 3 for | No | 1028 | -.0376546 | 1.03921388 | .03241219 |
| analysis 1 |  | Yes | 857 | .0451680 | .94946460 | .03243309 |
| REGR factor score | 4 for | No | 1028 | .1203791 | .94573688 | .02949672 |
| analysis 1 | Yes | 857 | -.1443987 | 1.04382154 | .03565626 |  |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
|  |  | Sig. |  |
| REGR factor score <br> analysis 1 | Equal variances assumed <br> Equal variances not assumed | 1.777 | .183 |
| REGR factor score <br> analysis 1 | Equal variances assumed <br> Equal variances not assumed | 32.077 | .000 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | 4.426 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -3.987 | 1883 | . 000 |
|  | Equal variances not assumed | -4.010 | 1857.334 | . 000 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -3.281 | 1883 | . 001 |
|  | Equal variances not assumed | -3.394 | 1808.650 | . 001 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.792 | 1883 | . 073 |
|  | Equal variances not assumed | -1.806 | 1867.252 | . 071 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 5.773 | 1883 | . 000 |
|  | Equal variances not assumed | 5.722 | 1746.675 | . 000 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.27405728 \\ & -.27352966 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.09333323 \\ & -.09386085 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.24185599 \\ & -.23884099 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.06088728 \\ & -.06390228 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.17348803 \\ & -.17275027 \\ & \hline \end{aligned}$ | $\begin{aligned} & .00784274 \\ & \hline .00710498 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .17482778 \\ & .17401656 \\ & \hline \end{aligned}$ | $\begin{aligned} & .35472792 \\ & .35553914 \\ & \hline \end{aligned}$ |

## T-test

Group Statistics

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | other | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 1682 | . 0020027 | . 98833359 | . 02409853 |
|  | yes | 203 | -. 0165939 | 1.09438492 | . 07681076 |
| REGR factor score 2 for analysis 1 | no | 1682 | -. 0046660 | 1.01597209 | . 02477244 |
|  | yes | 203 | . 0386616 | . 85750315 | . 06018492 |
| REGR factor score 3 for analysis 1 | no | 1682 | -. 0282966 | 1.00521140 | . 02451006 |
|  | yes | 203 | . 2344575 | . 92524511 | . 06493948 |
| REGR factor score 4 for analysis 1 | no | 1682 | . 0082009 | 1.00233511 | . 02443993 |
|  | yes | 203 | -. 0679505 | . 98022469 | . 06879829 |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
| REGR factor score <br> analysis 1 | for | Equal variances assumed <br> Equal variances not assumed | F |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | 4.372 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | 3.945 |
| REGR factor score <br> analysis 1 | 4 for | Equal variances assumed <br> Equal variances not assumed | 1.758 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .250 \\ & .231 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 243.440 \\ \hline \end{array}$ | $\begin{aligned} & .802 \\ & .818 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.583 \\ & -.666 \end{aligned}$ | $\begin{array}{r} 1883 \\ 275.294 \\ \hline \end{array}$ | $\begin{aligned} & .560 \\ & .506 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-3.547 \\ & -3.785 \end{aligned}$ | $\begin{array}{r} 1883 \\ 263.009 \\ \hline \end{array}$ | $\begin{aligned} & .000 \\ & .000 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.025 1.043 | 1883 255.711 | .306 .298 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :--- | :--- | ---: | ---: |
|  |  |  | Std. Error <br> Difference |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed | .01859663 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12716059 \\ & -.13997346 \\ & \hline \end{aligned}$ | $\begin{aligned} & .16435384 \\ & .17716671 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.18907409 \\ & -.17145275 \\ & \hline \end{aligned}$ | $\begin{aligned} & .10241888 \\ & .08479754 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.40802913 \\ & -.39942591 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.11747899 \\ & -.12608220 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.06956754 \\ & -.06762673 \\ & \hline \end{aligned}$ | $\begin{aligned} & .22187046 \\ & .21992965 \end{aligned}$ |

# 4.9Correlations for Hours Spent watching Television per Week by factor Group 

CORRELATIONS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1 tvtime
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

## Correlations

| Correlations |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | REGR factor score 1 for analysis 1 | REGR factor score 2 for analysis 1 | REGR factor score 3 for analysis 1 |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} 1 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| REGR factor score 2 for analysis 1 | $\begin{aligned} & \text { Pearson Correlation } \\ & \text { Sig. (2-tailed) } \\ & \mathrm{N} \\ & \hline \end{aligned}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | 1 1885 | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | 1 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| hours a week tv | Pearson Correlation Sig. (2-tailed) <br> N | $\begin{gathered} \hline .087 \\ .000 \\ 1883 \\ \hline \end{gathered}$ | $\begin{array}{r} \hline .004 \\ .869 \\ 1883 \\ \hline \end{array}$ | .016 .486 1883 |

Correlations

|  |  | REGR factor score 4 for analysis 1 | hours a week tv |
| :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation | . 000 | . 087 |
|  | Sig. (2-tailed) | 1.000 | . 000 |
|  | N | 1885 | 1883 |
| REGR factor score 2 for analysis 1 | Pearson Correlation | . 000 | -. 004 |
|  | Sig. (2-tailed) | 1.000 | . 869 |
|  | N | 1885 | 1883 |
| REGR factor score 3 for analysis 1 | Pearson Correlation | . 000 | . 016 |
|  | Sig. (2-tailed) | 1.000 | . 486 |
|  | N | 1885 | 1883 |
| REGR factor score 4 for analysis 1 | Pearson Correlation | 1 | . 092 |
|  | Sig. (2-tailed) |  | . 000 |
|  | N | 1885 | 1883 |
| hours a week tv | Pearson Correlation | . 092 | 1 |
|  | Sig. (2-tailed) | . 000 |  |
|  | N | 1883 | 2221 |

### 4.10 T-tests to Establish Newspaper preferences by Factor Group

T-TEST GROUPS=dmailread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

Group Statistics

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | daily mail | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | no | 1426 | -. 0546595 | . 98578832 | . 02610501 |
|  | yes | 459 | . 1698136 | 1.02556730 | . 04786938 |
| REGR factor score 2 for analysis 1 | no | 1426 | -. 0208106 | 1.03182034 | . 02732400 |
|  | yes | 459 | . 0646534 | . 89190065 | . 04163036 |
| REGR factor score 3 for analysis 1 | no | 1426 | -. 0040428 | 1.00743768 | . 02667832 |
|  | yes | 459 | . 0125600 | . 97750694 | . 04562612 |
| REGR factor score 4 for analysis 1 | no | 1426 | -. 0208222 | 1.00125074 | . 02651448 |
|  | yes | 459 | . 0646895 | . 99441027 | . 04641510 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.016 | . 156 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.320 | . 069 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 071 | . 790 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 104 | . 747 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -4.201 | 1883 | . 000 |
|  | Equal variances not assumed | -4.117 | 749.611 | . 000 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -1.593 | 1883 | . 111 |
|  | Equal variances not assumed | -1.716 | 884.826 | . 086 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -. 309 | 1883 | . 757 |
|  | Equal variances not assumed | -. 314 | 794.848 | . 754 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -1.594 | 1883 | . 111 |
|  | Equal variances not assumed | -1.600 | 779.021 | . 110 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.22447311 \\ & -.22447311 \end{aligned}$ | $\begin{aligned} & .05342922 \\ & .05452476 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.08546395 \\ & -.08546395 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05364291 \\ & .04979646 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01660283 \\ & -.01660283 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05367769 \\ & .05285334 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.08551167 \\ & -.08551167 \end{aligned}$ | $\begin{aligned} & .05364287 \\ & .05345445 \end{aligned}$ |


|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.32925981 \\ & -.33151250 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.11968641 \\ & -.11743372 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19066975 \\ & -.18319691 \\ & \hline \end{aligned}$ | $\begin{aligned} & .01974185 \\ & .01226902 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.12187684 \\ & -.12035144 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08867118 \\ & .08714579 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19071739 \\ & -.19044351 \\ & \hline \end{aligned}$ | $\begin{aligned} & .01969405 \\ & .01942016 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=inderead(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | Group Statistics |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | independent | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score | 1 for | no | 1767 | .0100490 | .99908821 |
| analysis 1 |  | yes | 118 | -.1504791 | 1.00583150 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 361 | . 548 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 590 | . 443 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 430 | . 512 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 622 | . 430 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | 1.689 | 1883 | . 091 |
|  | Equal variances not assumed | 1.679 | 132.887 | . 095 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 387 | 1883 | . 699 |
|  | Equal variances not assumed | -. 505 | 147.434 | . 614 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.098 | 1883 | . 272 |
|  | Equal variances not assumed | -1.182 | 136.163 | . 239 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | . 283 | 1883 | . 777 |
|  | Equal variances not assumed | . 293 | 134.421 | . 770 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .16052810 \\ & .16052810 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .09503485 \\ & .09559604 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.03683691 \\ & -.03683691 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .09510304 \\ & .07291192 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10436820 \\ & -.10436820 \\ & \hline \end{aligned}$ | $\begin{aligned} & .09507641 \\ & .08833250 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .02694384 \\ & .02694384 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .09510480 \\ & .09199461 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.02585660 \\ & -.02855864 \\ & \hline \end{aligned}$ | $\begin{aligned} & .34691279 \\ & .34961483 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.22335533 \\ & -.18092435 \\ & \hline \end{aligned}$ | $\begin{array}{r} .14968151 \\ .10725053 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.29083439 \\ & -.27904920 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08209800 \\ & .07031281 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.15957803 \\ & -.15500028 \\ & \hline \end{aligned}$ | $\begin{aligned} & .21346571 \\ & .20888796 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=mailsunread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | mail on Sunday | N | Mean | Std. Deviation | Std. Error Mean |  |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | No | 1593 | -.0413848 | .99129669 | .02483681 |
| analysis 1 | Yes | 292 | .2257741 | 1.01868794 | .05961420 |  |
| REGR factor score 2 for | No | 1593 | -.0052312 | 1.00995124 | .02530419 |  |
| analysis 1 | Yes | 292 | .0285388 | .94501075 | .05530257 |  |
| REGR factor score 3 for | No | 1593 | .0055816 | 1.00623977 | .02521120 |  |
| analysis 1 | Yes | 292 | -.0304501 | .96635889 | .05655188 |  |
| REGR factor score 4 for | No | 1593 | .0021477 | 1.00113009 | .02508318 |  |
| analysis 1 | Yes | 292 | -.0117168 | .99544031 | .05825374 |  |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
|  |  | Sig. |  |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed <br> Equal variances not assumed | .694 |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | .343 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | .361 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -4.215 | 1883 | . 000 |
|  | Equal variances not assumed | -4.137 | 398.594 | . 000 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 530 | 1883 | . 596 |
|  | Equal variances not assumed | -. 555 | 422.220 | . 579 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | . 566 | 1883 | . 572 |
|  | Equal variances not assumed | . 582 | 415.165 | . 561 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | . 218 | 1883 | . 828 |
|  | Equal variances not assumed | . 219 | 406.354 | . 827 |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.39145557 \\ & -.39412108 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.14286227 \\ & -.14019675 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.15864245 \\ & -.15331132 \\ & \hline \end{aligned}$ | $\begin{aligned} & .09110240 \\ & .08577128 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.08883945 \\ & -.08567829 \end{aligned}$ | $\begin{aligned} & .16090283 \\ & .15774167 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11101568 \\ & -.11081654 \\ & \hline \end{aligned}$ | $\begin{aligned} & .13874468 \\ & .13854554 \end{aligned}$ |

T-TEST GROUPS=mirrorread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet 1] F:\301109.sav

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | mirror | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | $\begin{aligned} & \hline \text { no } \\ & \text { yes } \\ & \hline \end{aligned}$ | $\begin{array}{r} 1794 \\ 91 \\ \hline \end{array}$ | $\begin{array}{r} \hline .0007642 \\ .0150651 \\ \hline \end{array}$ | $\begin{array}{r} 1.00187521 \\ .96751396 \\ \hline \end{array}$ | $\begin{aligned} & .02365388 \\ & . ~ \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1794 \\ 91 \\ \hline \end{array}$ | $\begin{array}{r} \hline .0019446 \\ .0383356 \\ \hline \end{array}$ | $\begin{array}{r} .99672544 \\ 1.06761853 \\ \hline \end{array}$ | $\begin{array}{r} .02353230 \\ .11191683 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1794 \\ 91 \\ \hline \end{array}$ | $\begin{array}{r} \hline .0045457 \\ -.0896153 \\ \hline \end{array}$ | $\begin{array}{r} .99147241 \\ 1.15797554 \\ \hline \end{array}$ | $\begin{aligned} & .02340828 \\ & .12138882 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | $\begin{aligned} & \text { no } \\ & \text { yes } \end{aligned}$ | $\begin{array}{r} 1794 \\ 91 \\ \hline \end{array}$ | $\begin{array}{r} \hline-.0088978 \\ .1754129 \\ \hline \end{array}$ | $\begin{array}{r} \hline 1.00251578 \\ .93704603 \\ \hline \end{array}$ | $\begin{aligned} & .02366900 \\ & .09822911 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed <br> Equal variances not assumed | F |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | .000 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | .260 |
| REGR factor score <br> analysis 1 | 4 for | Equal variances assumed <br> Equal variances not assumed | 5.133 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -. 147 | 1883 | . 883 |
|  | Equal variances not assumed | -. 152 | 100.042 | . 879 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 375 | 1883 | . 708 |
|  | Equal variances not assumed | -. 352 | 98.124 | . 725 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | . 876 | 1883 | . 381 |
|  | Equal variances not assumed | . 762 | 96.811 | . 448 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -1.716 | 1883 | . 086 |
|  | Equal variances not assumed | -1.824 | 100.737 | . 071 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01582927 \\ & -.01582927 \\ & \hline \end{aligned}$ | $\begin{aligned} & .10748220 \\ & .10414478 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.04028011 \\ & -.04028011 \end{aligned}$ | $\begin{aligned} & .10747881 \\ & .11436409 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .09416100 \\ & .09416100 \\ & \hline \end{aligned}$ | $\begin{aligned} & .10746091 \\ & .12362521 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.18431068 \\ & -.18431068 \\ & \hline \end{aligned}$ | $\begin{aligned} & .10739886 \\ & .10104049 \\ & \hline \end{aligned}$ |

## Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} \hline-.22662600 \\ -.22244849 \\ \hline \end{array}$ | $\begin{aligned} & .19496747 \\ & .19078995 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.25107020 \\ & -.26722834 \\ & \hline \end{aligned}$ | $\begin{aligned} & .17050998 \\ & .18666812 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11659399 \\ & -.15120686 \\ & \hline \end{aligned}$ | $\begin{aligned} & .30491599 \\ & .33952887 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.39494398 \\ & -.38475418 \\ & \hline \end{aligned}$ | $\begin{aligned} & .02632261 \\ & .01613281 \end{aligned}$ |

T-TEST GROUPS=suntimread (0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:\301109.sav

## Group Statistics

|  | Sunday times | N | Mean | Std. Deviation | Std. Error Mean |
| :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | no | 1525 | . 0130480 | . 99544723 | . 02549079 |
|  | yes | 360 | -. 0552726 | 1.01860931 | . 05368542 |
| REGR factor score 2 for analysis 1 | no | 1525 | -. 0156428 | 1.00510999 | . 02573823 |
|  | yes | 360 | . 0662645 | . 97665086 | . 05147402 |
| REGR factor score 3 for analysis 1 | no | 1525 | -. 0001483 | 1.01278460 | . 02593476 |
|  | yes | 360 | . 0006283 | . 94527599 | . 04982042 |
| REGR factor score 4 for analysis 1 | no | 1525 | . 0226636 | 1.01086076 | . 02588549 |
|  | yes | 360 | -. 0960055 | . 94797130 | . 04996247 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.735 | . 188 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.504 | . 114 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.830 | . 050 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 2.005 | . 157 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 1.166 \\ & 1.150 \end{aligned}$ | $\begin{array}{r} 1883 \\ 532.743 \end{array}$ | .244 <br> .251 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.398 \\ & -1.423 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 552.818 \\ \hline \end{array}$ | $\begin{aligned} & .162 \\ & .155 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} -.013 \\ -.014 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 570.071 \\ \hline \end{array}$ | $\begin{array}{r} .989 \\ .989 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 2.027 \\ & 2.109 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 567.957 \\ \hline \end{array}$ | .043 .035 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .06832052 \\ & .06832052 \end{aligned}$ | $\begin{aligned} & .05859061 \\ & .05942983 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.08190723 \\ & -.08190723 \end{aligned}$ | $\begin{aligned} & \hline .05858136 \\ & .05755025 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.00077663 \\ & -.00077663 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .05861176 \\ & .05616659 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .11866913 \\ & .11866913 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05854793 \\ & .05626995 \\ & \hline \end{aligned}$ |

## Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.04658883 \\ & -.04842504 \\ & \hline \end{aligned}$ | $\begin{aligned} & .18322988 \\ & .18506609 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19679844 \\ & -.19495114 \\ & \hline \end{aligned}$ | $\begin{aligned} & .03298398 \\ & .03113668 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11572746 \\ & -.11109534 \\ & \hline \end{aligned}$ | $\begin{aligned} & .11417420 \\ & .10954208 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .00384349 \\ & .00814653 \end{aligned}$ | $\begin{aligned} & .23349478 \\ & .22919174 \end{aligned}$ |

T-TEST GROUPS=sunread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  |  | Sun | N |  | Mean | Std. Deviation |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| Std. Error Mean |  |  |  |  |  |  |
| REGR factor score | 1 for | No | 1718 | -.0088566 | 1.00097644 | .02414973 |
| analysis 1 |  | Yes | 167 | .0911113 | .98825691 | .07647362 |
| REGR factor score | 2 for | No | 1718 | .0047406 | .97897523 | .02361892 |
| analysis 1 |  | Yes | 167 | -.0487688 | 1.19739747 | .09265740 |
| REGR factor score | 3 for | No | 1718 | .0131083 | .99184236 | .02392936 |
| analysis 1 |  | Yes | 167 | -.1348504 | 1.07425248 | .08312815 |
| REGR factor score | 4 for | No | 1718 | -.0286339 | 1.00871514 | .02433643 |
| analysis 1 |  | Yes | 167 | .2945693 | .85391532 | .06607795 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 095 | . 758 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.317 | . 069 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | 1.005 | . 316 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 9.279 | . 002 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | -1.233 | 1883 | . 218 |
|  | Equal variances not assumed | -1.247 | 200.567 | . 214 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 660 | 1883 | . 509 |
|  | Equal variances not assumed | . 560 | 188.196 | . 576 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | 1.827 | 1883 | . 068 |
|  | Equal variances not assumed | 1.710 | 194.522 | . 089 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -4.003 | 1883 | . 000 |
|  | Equal variances not assumed | -4.590 | 213.708 | . 000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.09996791 \\ & -.09996791 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08104491 \\ & .08019616 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .05350940 \\ & .05350940 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08106827 \\ & .09562033 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .14795864 \\ & .14795864 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08100592 \\ & .08650378 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.32320323 \\ & -.32320323 \\ & \hline \end{aligned}$ | $\begin{aligned} & .08073481 \\ & .07041703 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.25891519 \\ & -.25810368 \end{aligned}$ | $\begin{aligned} & .05897937 \\ & .05816787 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10548369 \\ & -.13511598 \\ & \hline \end{aligned}$ | $\begin{aligned} & .21250249 \\ & .24213478 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01091217 \\ & -.02264709 \end{aligned}$ | $\begin{aligned} & .30682945 \\ & .31856436 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.48154233 \\ & -.46200410 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.16486413 \\ & -.18440235 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=teleread ( 01 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F: 1301109. sav

| Group Statistics |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | telegraph | N | Mean | Std. Deviation | Std. Error Mean |
| REGR factor score 1 for analysis 1 | No | 1573 | -. 0160114 | 1.00515139 | . 02534353 |
|  | Yes | 312 | . 0807241 | . 97116951 | . 05498165 |
| REGR factor score 2 for analysis 1 | No | 1573 | -. 0196978 | 1.02576853 | . 02586336 |
|  | Yes | 312 | . 0993096 | . 85293615 | . 04828800 |
| REGR factor score 3 for analysis 1 | No | 1573 | . 0021818 | 1.00527777 | . 02534672 |
|  | Yes | 312 | -. 0110001 | . 97446111 | . 05516800 |
| REGR factor score 4 for analysis 1 | No | 1573 | . 0456260 | . 99065277 | . 02497797 |
|  | Yes | 312 | -. 2300309 | 1.01668798 | . 05755862 |


|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 036 | . 850 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | 7.753 | . 005 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 781 | . 377 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 663 | . 416 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.561 \\ & -1.598 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 453.149 \\ \hline \end{array}$ | $\begin{aligned} & .119 \\ & .111 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-1.922 \\ & -2.173 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 506.779 \end{array}$ | $\begin{aligned} & .055 \\ & .030 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .213 \\ & .217 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 452.170 \\ \hline \end{array}$ | $\begin{aligned} & .832 \\ & .828 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 4.470 \\ & 4.393 \\ & \hline \end{aligned}$ | 1883 436.104 | .000 .000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.09673555 \\ & -.09673555 \end{aligned}$ | $\begin{aligned} & .06195100 \\ & .06054152 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11900733 \\ & -.11900733 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06193040 \\ & .05477814 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .01318190 \\ & .01318190 \end{aligned}$ | $\begin{aligned} & .06199035 \\ & .06071214 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .27565692 \\ & .27565692 \end{aligned}$ | $\begin{aligned} & .06166475 \\ & .06274467 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.21823537 \\ & -.21571253 \\ & \hline \end{aligned}$ | $\begin{aligned} & .02476428 \\ & .02224143 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.24046675 \\ & -.22662753 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline .00245210 \\ -.01138712 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.10839510 \\ & -.10613107 \\ & \hline \end{aligned}$ | $\begin{aligned} & .13475890 \\ & .13249487 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .15471849 \\ & .15233738 \\ & \hline \end{aligned}$ | $\begin{aligned} & .39659535 \\ & .39897646 \end{aligned}$ |

T-TEST GROUPS=timesread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

|  | Times | N |  | Mean | Std. Deviation |
| :--- | :--- | ---: | ---: | ---: | ---: |
|  | Std. Error Mean |  |  |  |  |
| REGR factor score | 1 for | No | 1582 | .0283432 | .99966579 |
| analysis 1 |  | Yes | 303 | -.1479832 | .99026770 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 005 | . 942 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 001 | . 980 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 653 | . 419 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 053 | . 818 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 2.817 \\ & 2.835 \end{aligned}$ | $\begin{array}{r} 1883 \\ 428.279 \\ \hline \end{array}$ | .005 .005 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .790 \\ & .749 \end{aligned}$ | $\begin{array}{r} 1883 \\ 406.994 \end{array}$ | $\begin{aligned} & .430 \\ & .454 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-2.350 \\ & -2.361 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 427.710 \\ \hline \end{array}$ | .019 .019 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 2.660 \\ & 2.636 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 422.304 \\ \hline \end{array}$ | .008 .009 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .17632642 \\ & .17632642 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline .06259408 \\ & .06219399 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .04951691 \\ & .04951691 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06271545 \\ & .06612264 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14716093 \\ & -.14716093 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06263409 \\ & .06232390 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .16654303 \\ & .16654303 \\ & \hline \end{aligned}$ | $\begin{aligned} & .06260830 \\ & .06318309 \end{aligned}$ |


|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .05356537 \\ & .05408299 \\ & \hline \end{aligned}$ | $\begin{aligned} & .29908746 \\ & .29856985 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.07348217 \\ & -.08046762 \\ & \hline \end{aligned}$ | $\begin{aligned} & .17251600 \\ & .17950145 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.27000044 \\ & -.26966016 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.02432142 \\ & -.02466170 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .04375408 \\ & .04235052 \end{aligned}$ | $\begin{aligned} & .28933198 \\ & .29073554 \end{aligned}$ |

T-TEST GROUPS=localread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F: 1301109. sav

## Group Statistics

|  |  | Local | N |  | Mean | Std. Deviation |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
|  | Std. Error Mean |  |  |  |  |  |
| REGR factor score | 1 for | No | 1199 | .0058485 | .99360654 | .02869491 |
| analysis 1 |  | Yes | 686 | -.0102220 | 1.01172475 | .03862783 |
| REGR factor score | 2 for | No | 1199 | -.0020665 | .99908247 | .02885305 |
| analysis 1 |  | Yes | 686 | .0036118 | 1.00232090 | .03826879 |
| REGR factor score | 3 for | No | 1199 | -.0190993 | 1.00197947 | .02893672 |
| analysis 1 |  | Yes | 686 | .0333820 | .99638080 | .03804200 |
| REGR factor score | 4 for | No | 1199 | -.0063315 | 1.02667509 | .02964991 |
| analysis 1 |  | Yes | 686 | .0110663 | .95221751 | .03635583 |

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | . 582 | . 446 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 609 | . 435 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 320 | . 572 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | 4.529 | . 033 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | . 336 | 1883 | . 737 |
|  | Equal variances not assumed | . 334 | 1404.975 | . 738 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | -. 119 | 1883 | . 906 |
|  | Equal variances not assumed | -. 118 | 1422.331 | . 906 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.096 | 1883 | . 273 |
|  | Equal variances not assumed | -1.098 | 1432.738 | . 272 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | -. 363 | 1883 | . 716 |
|  | Equal variances not assumed | -. 371 | 1515.820 | . 711 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .01607048 \\ & .01607048 \end{aligned}$ | $\begin{aligned} & .04788355 \\ & .04811972 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.00567829 \\ & -.00567829 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04788480 \\ & .04792702 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.05248135 \\ & -.05248135 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04786971 \\ & .04779673 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.01739783 \\ & -.01739783 \\ & \hline \end{aligned}$ | $\begin{aligned} & .04788330 \\ & .04691337 \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means 95\% Confidence Interval of the Difference |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.07783992 \\ & -.07832375 \end{aligned}$ | $\begin{aligned} & .10998087 \\ & .11046471 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & -.09959114 \\ & -.09969352 \end{aligned}$ | $\begin{aligned} & .08823456 \\ & .08833694 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.14636459 \\ & -.14624041 \end{aligned}$ | $\begin{aligned} & .04140190 \\ & .04127772 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11130774 \\ & -.10941981 \\ & \hline \end{aligned}$ | $\begin{aligned} & .07651208 \\ & .07462416 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=noneread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:1301109.sav

Group Statistics

\left.|  | no paper | N | Mean | Std. Deviation | Std. Error Mean |
| :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | no | 1550 | .0294910 | 1.00109598 |
| analysis 1 |  | yes | 335 | -.1364509 | .98494266 |$\right] .02542786$

Independent Samples Test

|  |  | Levene's Test for Equality of Variances |  |
| :---: | :---: | :---: | :---: |
|  |  | F | Sig. |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | 3.007 | . 083 |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | . 399 | . 527 |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | . 003 | . 955 |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | . 789 | . 374 |


|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & 2.759 \\ & 2.788 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 494.484 \\ \hline \end{array}$ | $\begin{aligned} & .006 \\ & .006 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .544 \\ & .517 \end{aligned}$ | $\begin{array}{r} 1883 \\ 465.057 \\ \hline \end{array}$ | $\begin{aligned} & .587 \\ & .606 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{array}{r} .013 \\ .013 \\ \hline \end{array}$ | $\begin{array}{r} 1883 \\ 499.409 \\ \hline \end{array}$ | $\begin{aligned} & \hline .990 \\ & .990 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-2.303 \\ & -2.253 \\ & \hline \end{aligned}$ | $\begin{array}{r} 1883 \\ 478.324 \\ \hline \end{array}$ | $\begin{aligned} & .021 \\ & .025 \\ & \hline \end{aligned}$ |

Independent Samples Test


Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline .04798206 \\ & .04900182 \\ & \hline \end{aligned}$ | $\begin{aligned} & .28390165 \\ & .28288189 \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.08540733 \\ & -.09187253 \\ & \hline \end{aligned}$ | $\begin{aligned} & .15097006 \\ & .15743525 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.11743613 \\ & -.11533895 \\ & \hline \end{aligned}$ | $\begin{aligned} & .11895982 \\ & .11686264 \\ & \hline \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.25662423 \\ & -.25946151 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-.02056046 \\ & -.01772318 \\ & \hline \end{aligned}$ |

T-TEST GROUPS=otherread(0 1)
/MISSING=ANALYSIS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1
/CRITERIA=CI(.95).

## T-test

[DataSet1] F:\301109.sav

Group Statistics

|  | Gor paper | N |  | Mean | Std. Deviation | Std. Error Mean |
| :--- | :--- | :--- | ---: | ---: | ---: | ---: |
| REGR factor score | 1 for | No | 1535 | .0211791 | .98848371 | .02522989 |
| analysis 1 | Yes | 350 | -.0928853 | 1.04541613 | .05587984 |  |
| REGR factor score | 2 for | No | 1535 | .0086679 | 1.00402269 | .02562650 |
| analysis 1 | Yes | 350 | -.0380150 | .98267579 | .05252623 |  |
| REGR factor score | 3 for | No | 1535 | -.0142387 | 1.01892602 | .02600689 |
| analysis 1 | Yes | 350 | .0624470 | .91110535 | .04870063 |  |
| REGR factor score 4 for | No | 1535 | .0399889 | .99498627 | .02539586 |  |
| analysis 1 | Yes | 350 | -.1753800 | 1.00446507 | .05369092 |  |


|  |  | Levene's Test for Equality of <br> Variances |  |
| :--- | :--- | ---: | ---: |
|  |  | Eig. |  |
| REGR factor score <br> analysis 1 | 1 for | Equal variances assumed <br> Equal variances not assumed | 4.314 |
| REGR factor score <br> analysis 1 | 2 for | Equal variances assumed <br> Equal variances not assumed | .000 |
| REGR factor score <br> analysis 1 | 3 for | Equal variances assumed <br> Equal variances not assumed | 4.885 |
| REGR factor score <br> analysis 1 | 4 for | Equal variances assumed <br> Equal variances not assumed | .998 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | t | df | Sig. (2-tailed) |
| REGR factor score 1 for analysis 1 | Equal variances assumed | 1.927 | 1883 | . 054 |
|  | Equal variances not assumed | 1.860 | 501.056 | . 063 |
| REGR factor score 2 for analysis 1 | Equal variances assumed | . 788 | 1883 | . 431 |
|  | Equal variances not assumed | . 799 | 528.109 | . 425 |
| REGR factor score 3 for analysis 1 | Equal variances assumed | -1.295 | 1883 | . 196 |
|  | Equal variances not assumed | -1.389 | 565.961 | . 165 |
| REGR factor score 4 for analysis 1 | Equal variances assumed | 3.648 | 1883 | . 000 |
|  | Equal variances not assumed | 3.626 | 516.748 | . 000 |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | Mean Difference | Std. Error Difference |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .11406434 \\ & .11406434 \end{aligned}$ | $\begin{aligned} & .05919090 \\ & .06131153 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .04668292 \\ & .04668292 \end{aligned}$ | $\begin{aligned} & .05923947 \\ & .05844418 \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.07668576 \\ & -.07668576 \\ & \hline \end{aligned}$ | $\begin{aligned} & .05922287 \\ & .05520969 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .21536892 \\ & .21536892 \end{aligned}$ | $\begin{aligned} & \hline .05904099 \\ & .05939414 \\ & \hline \end{aligned}$ |

Independent Samples Test

|  |  | T-test for Equality of Means |  |
| :---: | :---: | :---: | :---: |
|  |  | 95\% Confidence Interval of the Difference |  |
|  |  | Lower | Upper |
| REGR factor score 1 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.00202230 \\ & -.00639502 \\ & \hline \end{aligned}$ | $\begin{aligned} & .23015099 \\ & .23452371 \\ & \hline \end{aligned}$ |
| REGR factor score 2 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.06949898 \\ & -.06812870 \\ & \hline \end{aligned}$ | $\begin{aligned} & .16286483 \\ & .16149454 \\ & \hline \end{aligned}$ |
| REGR factor score 3 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & \hline-.19283512 \\ & -.18512666 \\ & \hline \end{aligned}$ | $\begin{aligned} & .03946360 \\ & .03175515 \end{aligned}$ |
| REGR factor score 4 for analysis 1 | Equal variances assumed Equal variances not assumed | $\begin{aligned} & .09957626 \\ & .09868524 \\ & \hline \end{aligned}$ | $\begin{aligned} & .33116157 \\ & .33205259 \end{aligned}$ |

CORRELATIONS
/VARIABLES=FAC1_1 FAC2_1 FAC3_1 FAC4_1 inex mid exp
/PRINT=TWOTAIL NOSIG
/MISSING=PAIRWISE.

## Correlations

[DataSet1] F:1301109.sav

Correlations

|  |  | REGR factor score 1 for analysis 1 | REGR factor score 2 for analysis 1 | REGR factor score 3 for analysis 1 |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | 1 1885 | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \\ \hline \end{array}$ | 1 1885 | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | 1 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ | $\begin{array}{r} .000 \\ 1.000 \\ 1885 \end{array}$ |
| cost inexp meal | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .007 \\ .777 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} \hline .065 \\ .005 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} \hline .036 \\ .118 \\ 1885 \\ \hline \end{array}$ |
| cost mid meal | Pearson Correlation Sig. (2-tailed) N | $-.076$ $.001$ <br> 1885 | $\begin{array}{r} \hline .070 \\ .002 \\ 1885 \\ \hline \end{array}$ | $\begin{gathered} .046 \\ .044 \\ 1885 \end{gathered}$ |
| cost exp meal | Pearson Correlation Sig. (2-tailed) <br> N | $\begin{array}{r} \hline .072 \\ .002 \\ 1885 \end{array}$ | $\begin{gathered} .066 \\ .004 \\ 1885 \end{gathered}$ | $\begin{array}{r} .020 \\ .393 \\ 1885 \end{array}$ |

Correlations

|  |  | REGR factor score 4 for analysis 1 | cost inexp meal |
| :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation | . 000 | . 007 |
|  | Sig. (2-tailed) | 1.000 | . 777 |
|  | N | 1885 | 1885 |
| REGR factor score 2 for analysis 1 | Pearson Correlation | . 000 | . 065 |
|  | Sig. (2-tailed) | 1.000 | . 005 |
|  | N | 1885 | 1885 |
| REGR factor score 3 for analysis 1 | Pearson Correlation | . 000 | . 036 |
|  | Sig. (2-tailed) | 1.000 | . 118 |
|  | N | 1885 | 1885 |
| REGR factor score 4 for analysis 1 | Pearson Correlation | 1 | -. 113 |
|  | Sig. (2-tailed) |  | . 000 |
|  | N | 1885 | 1885 |
| cost inexp meal | Pearson Correlation | -. 113 | 1 |
|  | Sig. (2-tailed) | . 000 |  |
|  | N | 1885 | 2226 |
| cost mid meal | Pearson Correlation | -. 140 | . 804 |
|  | Sig. (2-tailed) | . 000 | . 000 |
|  | N | 1885 | 2226 |
| cost exp meal | Pearson Correlation | -. 118 | . 531 |
|  | Sig. (2-tailed) | . 000 | . 000 |
|  | N | 1885 | 2226 |


|  |  | cost mid meal | cost exp meal |
| :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} -.076 \\ .001 \\ 1885 \end{array}$ | $\begin{array}{r} -.072 \\ .002 \\ 1885 \end{array}$ |
| REGR factor score 2 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .070 \\ .002 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .066 \\ .004 \\ 1885 \\ \hline \end{array}$ |
| REGR factor score 3 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} .046 \\ .044 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} .020 \\ .393 \\ 1885 \\ \hline \end{array}$ |
| REGR factor score 4 for analysis 1 | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} \hline-.140 \\ .000 \\ 1885 \\ \hline \end{array}$ | $\begin{array}{r} -.118 \\ .000 \\ 1885 \end{array}$ |
| cost inexp meal | Pearson Correlation Sig. (2-tailed) N | $\begin{array}{r} \hline .804 \\ .000 \\ 2226 \end{array}$ | $\begin{array}{r} .531 \\ .000 \\ 2226 \end{array}$ |
| cost mid meal | Pearson Correlation Sig. (2-tailed) N | 1 2226 | $\begin{array}{r} \hline .785 \\ .000 \\ 2226 \end{array}$ |
| cost exp meal | Pearson Correlation <br> Sig. (2-tailed) <br> N | $\begin{array}{r} .785 \\ .000 \\ 2226 \end{array}$ | 1 2226 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

### 4.11 ANOVA Tests to Understand Personality Traits by Factor Group

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY tasks
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

| ANOVA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Sum of Squares | df | Mean Square |
| REGR factor score 1 for analysis 1 | Between Groups | 28.810 | 5 | $\begin{array}{r} 5.762 \\ .987 \end{array}$ |
|  | Within Groups | 1855.190 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 20.889 | 5 | $\begin{array}{r} 4.178 \\ .992 \end{array}$ |
|  | Within Groups | 1863.111 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 38.896 | 5 | $\begin{array}{r} 7.779 \\ .982 \end{array}$ |
|  | Within Groups | 1845.104 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 6.949 | 5 | $\begin{array}{r} 1.390 \\ .999 \end{array}$ |
|  | Within Groups | 1877.051 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 5.836 | .000 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.213 | .001 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 7.922 | .000 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.391 | .224 |

## Post Hoc Tests

| Multiple Comparisons |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dependent Variable | (I) tasks efficiently | (J) tasks efficiently | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
|  |  |  |  |  |  | Lower <br> Bound | Upper <br> Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | . 19797022 | . 04858655 | . 001 | . 0593696 | . 3365708 |
|  |  | Neutral | . 27771627 | . 08855816 | . 021 | . 0250904 | . 5303421 |
|  |  | Disagree | . 36375589 | . 28917869 | . 808 | -. 4611710 | 1.1886827 |
|  |  | Strongly disagree | -. 69554130 | . 35321804 | . 361 | -1.7031503 | . 3120677 |
|  |  | 99 | -. 52932497 | . 40731027 | . 785 | -1.6912404 | . 6325905 |
|  | Agree | Strongly agree | . $19797022^{*}$ | . 04858655 | . 001 | -. 3365708 | -. 0593696 |
|  |  | Neutral | . 07974605 | . 08665601 | . 941 | -. 1674536 | . 3269457 |


|  |  | Disagree Strongly disagree 99 | 16578567 <br> -.89351151 <br> -.72729518 | .28860185 <br> .35274594 <br> .40690094 | .993 .115 .474 | -6574957 -1.8997738 -1.8880429 | .9890670 <br> .1127507 <br> .4334525 <br> .02500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Neutral | Strongly agree | . $27771627^{*}$ | . 08855816 | . 021 | -. 5303421 | -. 0250904 |
|  |  | Agree | -. 07974605 | . 08665601 | . 941 | -. 3269457 | . 1674536 |
|  |  | Disagree | . 08603962 | . 29794785 | 1.000 | -. 7639026 | . 9359819 |
|  |  | Strongly disagree | -. 97325756 | . 36043251 | . 076 | -2.0014469 | . 0549318 |
|  |  | 99 | -. 80704124 | . 41358224 | . 371 | -1.9868484 | . 3727659 |
|  | Disagree | Strongly agree | -. 36375589 | . 28917869 | . 808 | -1.1886827 | . 4611710 |
|  |  | Agree | -. 16578567 | . 28860185 | . 993 | -. 9890670 | . 6574957 |
|  |  | Neutral | -. 08603962 | . 29794785 | 1.000 | -. 9359819 | . 7639026 |
|  |  | Strongly disagree | $\begin{array}{r} 1.0592971 \\ 8 \end{array}$ | . 45353430 | . 180 | -2.3530738 | . 2344794 |
|  |  | 99 | -. 89308086 | . 49682193 | . 468 | -2.3103421 | . 5241804 |
|  | Strongly | Strongly agree | . 69554130 | . 35321804 | . 361 | -. 3120677 | 1.7031503 |
|  | disagree | Agree | . 89351151 | . 35274594 | . 115 | -. 1127507 | 1.8997738 |
|  |  | Neutral | . 97325756 | . 36043251 | . 076 | -. 0549318 | 2.0014469 |
|  |  | Disagree | 1.0592971 8 | . 45353430 | . 180 | -. 2344794 | 2.3530738 |
|  |  | 99 | . 16621633 | . 53662902 | 1.000 | -1.3646008 | 1.6970334 |
|  | 99 | Strongly agree | . 52932497 | . 40731027 | . 785 | -. 6325905 | 1.6912404 |
|  |  | Agree | . 72729518 | . 40690094 | . 474 | -. 4334525 | 1.8880429 |
|  |  | Neutral | . 80704124 | . 41358224 | . 371 | -. 3727659 | 1.9868484 |
|  |  | Disagree | . 89308086 | . 49682193 | . 468 | -. 5241804 | 2.3103421 |
|  |  | Strongly disagree | -. 16621633 | . 53662902 | 1.000 | -1.6970334 | 1.3646008 |
| REGR factor score for analysis 1 | Strongly agree | Agree | . 09957607 | . 04869017 | . 317 | -. 0393202 | . 2384723 |
|  |  | Neutral | . $39556888{ }^{\circ}$ | . 08874704 | . 000 | . 1424042 | . 6487335 |
|  |  | Disagree | . 12484830 | . 28979545 | . 998 | -. 7018379 | . 9515345 |
|  |  | Strongly disagree | -. 01002470 | . 35397138 | 1.000 | -1.0197827 | . 9997333 |
|  |  | 99 | -. 24128093 | . 40817898 | . 992 | -1.4056745 | . 9231126 |
|  | Agree | Strongly agree | -. 09957607 | . 04869017 | . 317 | -. 2384723 | . 0393202 |
|  |  | Neutral | . $29599280^{\circ}$ | . 08684083 | . 009 | . 0482659 | . 5437197 |
|  |  | Disagree | . 02527223 | . 28921738 | 1.000 | -. 7997650 | . 8503094 |
|  |  | Strongly disagree | -. 10960077 | . 35349828 | 1.000 | -1.1180092 | . 8988076 |
|  |  | 99 | -. 34085701 | . 40776877 | . 961 | -1.5040804 | . 8223664 |
|  | Neutral | Strongly agree |  | . 08874704 | . 000 | -. 6487335 | -. 1424042 |
|  |  | Agree |  | . 08684083 | . 009 | -. 5437197 | -. 0482659 |
|  |  |  | . $29599280^{\circ}$ |  |  |  |  |
|  |  | Disagree | -. 27072057 | . 29858332 | . 945 | -1.1224756 | . 5810344 |
|  |  | Strongly disagree | -. 40559358 | . 36120124 | . 872 | -1.4359759 | . 6247887 |
|  |  | 99 | -. 63684981 | . 41446432 | . 641 | -1.8191733 | . 5454737 |
|  | Disagree | Strongly agree | -. 12484830 | . 28979545 | . 998 | -. 9515345 | . 7018379 |
|  |  | Agree | -. 02527223 | . 28921738 | 1.000 | -. 8503094 | . 7997650 |
|  |  | Neutral | . 27072057 | . 29858332 | . 945 | -. 5810344 | 1.1224756 |
|  |  | Strongly disagree | -. 13487300 | . 45450159 | 1.000 | -1.4314090 | 1.1616630 |
|  |  | 99 | -. 36612923 | . 49788155 | . 978 | -1.7864132 | 1.0541547 |
|  | Strongly | Strongly agree | . 01002470 | . 35397138 | 1.000 | -. 9997333 | 1.0197827 |
|  | disagree | Agree | . 10960077 | . 35349828 | 1.000 | -. 8988076 | 1.1180092 |
|  |  | Neutral | . 40559358 | . 36120124 | . 872 | -. 6247887 | 1.4359759 |
|  |  | Disagree | . 13487300 | . 45450159 | 1.000 | -1.1616630 | 1.4314090 |
|  |  | 99 | -. 23125623 | . 53777354 | . 998 | -1.7653383 | 1.3028258 |
|  | 99 | Strongly agree | . 24128093 | . 40817898 | . 992 | -. 9231126 | 1.4056745 |
|  |  | Agree | . 34085701 | . 40776877 | . 961 | -. 8223664 | 1.5040804 |
|  |  | Neutral | . 63684981 | . 41446432 | . 641 | -. 5454737 | 1.8191733 |
|  |  | Disagree | . 36612923 | . 49788155 | . 978 | -1.0541547 | 1.7864132 |
|  |  | Strongly disagree | . 23125623 | . 53777354 | . 998 | -1.3028258 | 1.7653383 |
| $\begin{aligned} & \text { REGR factor score } \\ & \text { for analysis } 1 \end{aligned}$ | Strongly agree | Agree Neutral | . 25277969 | . 04845431 | . 000 | . 1145563 | . 3910031 |
|  |  |  | . $41354324^{\circ}$ | . 08831713 | . 000 | . 1616050 | . 6654815 |



*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| tasks efficiently |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  |  | 1 | 2 |
| Disagree | 12 | -.2413895 |  |
| Neutral | 152 | -.1553499 | -.1553499 |
| Agree | 974 | -.0756038 | -.0756038 |
| Strongly agree | 733 | .1223664 | .1223664 |
| 99 | 6 | .6516914 | .6516914 |
| Strongly disagree | 8 |  | .8179077 |
| Sig. |  | .121 | .068 |

Means for groups in homogeneous subsets are displayed
a. Uses Harmonic Mean Sample Size $=15.626$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 2 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| tasks efficiently | N | 1 |
| Neutral | 152 | -.3122353 |
| Disagree | 12 | -.0415147 |
| Agree | 974 | -.0162425 |
| Strongly agree | 733 | .0833336 |
| Strongly disagree | 8 | .0933583 |
| 99 | 6 | .3246145 |
| Sig. |  | .474 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=15.626$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| tasks efficiently | N | 1 |
| Neutral | 152 | -.2501247 |
| Agree | 974 | -.0893611 |
| Disagree | 12 | .0213939 |
| Strongly agree | 733 | .1634186 |
| 99 | 6 | .2095922 |
| Strongly disagree | 8 | .4695782 |
| Sig. |  | .325 |

Means for groups in homogeneous subsets are
displayed.
a. Uses Harmonic Mean Sample Size $=15.626$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
| tasks efficiently | N | 1 | 2 |
| Disagree | 12 | -.6082470 |  |
| Strongly agree | 733 | -.0052876 | -.0052876 |
| Agree | 974 | .0016926 | .0016926 |
| Neutral | 152 | .0352737 | .0352737 |
| Strongly disagree | 8 | .0593599 | .0593599 |
| 99 | 6 |  | .6149496 |
| Sig. |  | .423 | .509 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=15.626$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY family
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

[DataSet1] F: 1301109. sav

| ANOVA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Sum of Squares | df | Mean Square |
| REGR factor score 1 for analysis 1 | Between Groups | 16.167 | 5 | $\begin{array}{r} 3.233 \\ .994 \end{array}$ |
|  | Within Groups | 1867.833 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 6.683 | 5 | $\begin{array}{r} 1.337 \\ .999 \end{array}$ |
|  | Within Groups | 1877.317 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 23.346 | 5 | $\begin{array}{r} 4.669 \\ .990 \end{array}$ |
|  | Within Groups | 1860.654 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 22.093 | 5 | $\begin{array}{r} 4.419 \\ .991 \end{array}$ |
|  | Within Groups | 1861.907 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  | ANOVA | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 3.253 | .006 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.338 | .245 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.715 | .000 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.459 | .000 |

## Post Hoc Tests

Multiple Comparisons
Tukey HSD

| Dependent Variable | (I) family important | (J) family important | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | . 11731240 | $\begin{array}{r} .0515043 \\ 2 \end{array}$ | . 204 | -. 0296116 | . 2642364 |
|  |  | Neutral | . 11951684 | $\begin{array}{r} .0710837 \\ 5 \end{array}$ | . 544 | -. 0832605 | . 3222942 |
|  |  | Disagree | . 24547460 | $\begin{array}{r} 1505505 \\ 7 \end{array}$ | . 578 | -. 1839942 | . 6749433 |
|  |  | Strongly disagree | -. 32713451 | $\begin{array}{r} .2263143 \\ 2 \end{array}$ | . 699 | -. 9727310 | . 3184620 |
|  |  | 99 | -. 83331518 | $\begin{array}{r} .3788448 \\ 8 \\ \hline \end{array}$ | . 238 | -1.9140287 | . 2473983 |
|  | Agree | Strongly agree | -. 11731240 | $\begin{array}{r} .0515043 \\ 2 \end{array}$ | . 204 | -. 2642364 | . 0296116 |
|  |  | Neutral | . 00220444 | $\begin{array}{r} .0683734 \\ 8 \end{array}$ | 1.000 | -. 1928415 | . 1972504 |
|  |  | Disagree | . 12816220 | $\begin{array}{r} .1492900 \\ 2 \end{array}$ | . 956 | -. 2977106 | . 5540350 |
|  |  | Strongly disagree | -. 44444690 | $\begin{array}{r} .2254777 \\ 2 \end{array}$ | . 359 | -1.0876569 | . 1987631 |
|  |  | 99 | -. 95062757 | $\begin{array}{r} .3783457 \\ 1 \end{array}$ | . 121 | -2.0299171 | . 1286620 |
|  | Neutral | Strongly agree | -. 11951684 | $\begin{array}{r} \hline .0710837 \\ 5 \end{array}$ | . 544 | -. 3222942 | . 0832605 |
|  |  | Agree | -. 00220444 | $\begin{array}{r} .0683734 \\ 8 \end{array}$ | 1.000 | -. 1972504 | . 1928415 |
|  |  | Disagree | . 12595776 | $\begin{array}{r} .1571232 \\ 4 \end{array}$ | . 967 | -. 3222605 | . 5741761 |
|  |  | Strongly disagree | -. 44665135 | $\begin{array}{r} .2307388 \\ 3 \end{array}$ | . 381 | -1.1048695 | . 2115668 |
|  |  | 99 | -. 95283202 | $\begin{array}{r} .3815045 \\ 0 \\ \hline \end{array}$ | . 125 | $-2.0411325$ | . 1354685 |
|  | Disagree | Strongly agree | -. 24547460 | $\begin{array}{r} .1505505 \\ 7 \end{array}$ | . 578 | -. 6749433 | . 1839942 |
|  |  | Agree | -. 12816220 | $\begin{array}{r} .1492900 \\ 2 \end{array}$ | . 956 | -. 5540350 | . 2977106 |
|  |  | Neutral | -. 12595776 | $\begin{array}{r} .1571232 \\ 4 \end{array}$ | . 967 | -. 5741761 | . 3222605 |
|  |  | Strongly disagree | $-.57260911$ | $\begin{array}{r} .2661822 \\ 4 \end{array}$ | . 262 | $-1.3319350$ | . 1867168 |
|  |  | 99 | $1.07878978^{-}$ | $\begin{array}{r} .4039285 \\ 3 \\ \hline \end{array}$ | . 082 | $-2.2310583$ | . 0734787 |
|  | Strongly disagree | Strongly agree | . 32713451 | $\begin{array}{r} .2263143 \\ 2 \end{array}$ | . 699 | -. 3184620 | . 9727310 |
|  |  | Agree | . 44444690 | $\begin{array}{r} .2254777 \\ 2 \end{array}$ | . 359 | -. 1987631 | 1.0876569 |
|  |  | Neutral | . 44665135 | $\begin{array}{r} .2307388 \\ 3 \end{array}$ | . 381 | -. 2115668 | 1.1048695 |
|  |  | Disagree | . 57260911 | $\begin{array}{r} .2661822 \\ 4 \end{array}$ | . 262 | -. 1867168 | 1.3319350 |
|  |  | 99 | -. 50618067 | $\begin{array}{r} .4378480 \\ 9 \end{array}$ | . 858 | -1.7552099 | . 7428486 |
|  | 99 | Strongly agree | . 83331518 | $\begin{array}{r} \hline .3788448 \\ 8 \end{array}$ | . 238 | -. 2473983 | 1.9140287 |
|  |  | Agree | . 95062757 | $\begin{array}{r} .3783457 \\ 1 \end{array}$ | . 121 | -. 1286620 | 2.0299171 |
|  |  | Neutral | . 95283202 | $\begin{array}{r} .3815045 \\ 0 \end{array}$ | . 125 | -. 1354685 | 2.0411325 |
|  |  | Disagree | 1.07878978 | $\begin{array}{r} .4039285 \\ 3 \end{array}$ | . 082 | -. 0734787 | 2.2310583 |
|  |  | Strongly disagree | . 50618067 | .4378480 9 | . 858 | -. 7428486 | 1.7552099 |



|  |  | Disagree <br> Strongly disagree 99 | -.24399990 -.06830489 -.21333018 | $\begin{array}{r} .1490028 \\ 7 \\ .2250440 \\ 3 \\ .3776179 \\ 9 \end{array}$ | .574 1.000 .993 | -.6690536 -.7102777 -1.2905438 | .1810538 .5736679 .8638834 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Neutral | Strongly agree | -. 16161618 | $\begin{array}{r} \hline .0709470 \\ 2 \end{array}$ | . 204 | -. 3640035 | . 0407711 |
|  |  | Agree | . 08164406 | .0682419 7 | . 839 | -. 1130267 | . 2763148 |
|  |  | Disagree | -. 16235584 | .1568210 2 | . 906 | -. 6097120 | . 2850003 |
|  |  | Strongly disagree | . 01333917 | $\begin{array}{r} 2302950 \\ 2 \end{array}$ | 1.000 | -. 6436129 | . 6702913 |
|  |  | 99 | -. 13168612 | .3807707 0 | . 999 | -1.2178933 | . 9545211 |
|  | Disagree | Strongly agree | . 00073966 | $\begin{array}{r} \hline 1502610 \\ 0 \end{array}$ | 1.000 | $-.4279030$ | . 4293824 |
|  |  | Agree | . 24399990 | $1490028$ | . 574 | -. 1810538 | . 6690536 |
|  |  | Neutral | . 16235584 | $1568210$ | . 906 | -. 2850003 | . 6097120 |
|  |  | Strongly disagree | . 17569501 | $\begin{array}{r} 2656702 \\ 5 \end{array}$ | . 986 | -. 5821704 | . 9335604 |
|  |  | 99 | . 03066972 | $\begin{array}{r} .4031516 \\ 0 \end{array}$ | 1.000 | -1.1193824 | 1.1807219 |
|  | Strongly disagree | Strongly agree | -. 17495535 | $\begin{array}{r} \hline 2258790 \\ 1 \end{array}$ | . 972 | -. 8193101 | . 4693994 |
|  |  | Agree | . 06830489 | $\begin{array}{r} 2250440 \\ 3 \end{array}$ | 1.000 | -. 5736679 | . 7102777 |
|  |  | Neutral | -. 01333917 | .2302950 2 | 1.000 | -. 6702913 | . 6436129 |
|  |  | Disagree | -. 17569501 | $\begin{array}{r} 2656702 \\ 5 \end{array}$ | 986 | -. 9335604 | . 5821704 |
|  |  | 99 | -. 14502529 | $\begin{array}{r} .4370059 \\ 2 \end{array}$ | . 999 | -1.3916521 | 1.1016016 |
|  | 99 | Strongly agree | -. 02993006 | $\begin{array}{r} \hline 3781161 \\ 9 \end{array}$ | 1.000 | -1.1085649 | 1.0487048 |
|  |  | Agree | . 21333018 | $\begin{array}{r} .3776179 \\ 9 \end{array}$ | . 993 | -. 8638834 | 1.2905438 |
|  |  | Neutral | . 13168612 | $\begin{array}{r} 3807707 \\ 0 \end{array}$ | . 999 | -. 9545211 | 1.2178933 |
|  |  | Disagree | -. 03066972 | $\begin{array}{r} .4031516 \\ 0 \end{array}$ | 1.000 | -1.1807219 | 1.1193824 |
|  |  | Strongly disagree | . 14502529 | .4370059 2 | . 999 | -1.1016016 | 1.3916521 |
| REGR factor score 4 for analysis 1 | Strongly agree | Agree | . 16947314 | $\begin{array}{r} \hline .0514225 \\ 6 \end{array}$ | . 013 | . 0227824 | . 3161639 |
|  |  | Neutral | . $22005964^{*}$ | $0709709 .$ | . 024 | . 0176042 | . 4225151 |
|  |  | Disagree | . $43333062^{\circ}$ | $\text { \| } 1503115 .$ | . 046 | . 0045437 | . 8621176 |
|  |  | Strongly disagree | . 34862817 | $\begin{array}{r} 2259550 \\ 4 \end{array}$ | . 636 | -. 2959435 | . 9931998 |
|  |  | 99 | -. 42372561 | $\begin{array}{r} .3782434 \\ 5 \end{array}$ | . 873 | -1.5027235 | . 6552722 |
|  | Agree | Strongly agree | $-.16947314$ | $\begin{array}{r} .0514225 \\ 6 \end{array}$ | . 013 | -. 3161639 | -. 0227824 |
|  |  | Neutral | . 05058650 | $\begin{array}{r} .0682649 \\ 4 \end{array}$ | 977 | -. 1441498 | . 2453228 |
|  |  | Disagree | . 26385748 | $\begin{array}{r} 1490530 \\ 2 \end{array}$ | 485 | -. 1613393 | . 6890542 |
|  |  | Strongly disagree | . 17915503 | $\begin{array}{r} 2251197 \\ 7 \end{array}$ | 968 | -. 4630339 | . 8213439 |
|  |  | 99 | -. 59319876 | $\begin{array}{r} 3777450 \\ 8 \end{array}$ | . 618 | -1.6707749 | . 4843774 |
|  | Neutral | Strongly agree | $-.22005964$ | $\begin{array}{r} \hline 0709709 \\ 0 \end{array}$ | . 024 | -. 4225151 | -.0176042 |
|  |  | Agree | -. 05058650 | $\begin{array}{r} 0682649 \\ 4 \end{array}$ | . 977 | -. 2453228 | . 1441498 |
|  |  | Disagree | . 21327098 | .1568738 0 | . 751 | -. 2342358 | . 6607777 |


|  | Strongly disagree 99 | .12856853 -.64378526 | $\begin{array}{r} .2303725 \\ 3 \\ .3808988 \\ 5 \end{array}$ | .994 .538 | -.5286047 -1.7303580 | .7857417 .4427875 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Disagree | Strongly agree | $-.43333062 *$ | $\begin{array}{r} .1503115 \\ 7 \end{array}$ | . 046 | -. 8621176 | -. 0045437 |
|  | Agree | -. 26385748 | $\begin{array}{r} .1490530 \\ 2 \end{array}$ | . 485 | -. 6890542 | . 1613393 |
|  | Neutral | -. 21327098 | $\begin{array}{r} .1568738 \\ 0 \end{array}$ | . 751 | -. 6607777 | . 2342358 |
|  | Strongly disagree | -. 08470245 | $\begin{array}{r} .2657596 \\ 7 \end{array}$ | 1.000 | -. 8428229 | . 6734180 |
|  | 99 | -. 85705624 | $\begin{array}{r} .4032872 \\ 8 \end{array}$ | . 275 | -2.0074955 | . 2933830 |
| Strongly disagree | Strongly agree | -. 34862817 | $\begin{array}{r} .2259550 \\ 4 \end{array}$ | . 636 | -. 9931998 | . 2959435 |
|  | Agree | -. 17915503 | $\begin{array}{r} .2251197 \\ 7 \end{array}$ | . 968 | -. 8213439 | . 4630339 |
|  | Neutral | -. 12856853 | $\begin{array}{r} .2303725 \\ 3 \end{array}$ | . 994 | -. 7857417 | . 5286047 |
|  | Disagree | . 08470245 | $\begin{array}{r} 2657596 \\ 7 \end{array}$ | 1.000 | -. 6734180 | . 8428229 |
|  | 99 | -. 77235379 | $\begin{array}{r} .4371530 \\ 0 \end{array}$ | . 488 | -2.0194002 | .4746926 |
| 99 | Strongly agree | . 42372561 | $\begin{array}{r} .3782434 \\ 5 \end{array}$ | . 873 | -. 6552722 | 1.5027235 |
|  | Agree | . 59319876 | $\begin{array}{r} .3777450 \\ 8 \end{array}$ | . 618 | -. 4843774 | 1.6707749 |
|  | Neutral | . 64378526 | $\begin{array}{r} . \\ \hline 508988 \\ \hline \end{array}$ | . 538 | -. 4427875 | 1.7303580 |
|  | Disagree | . 85705624 | $\begin{array}{r} 4032872 \\ 8 \end{array}$ | . 275 | -. 2933830 | 2.0074955 |
|  | Strongly disagree | . 77235379 | $\begin{array}{r} .4371530 \\ 0 \\ \hline \end{array}$ | . 488 | -. 4746926 | 2.0194002 |

*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| family important |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Disagree | 47 | -.1737098 |  |
| Neutral | 281 | -.0477520 |  |
| Agree | 874 | -.0455476 |  |
| Strongly agree | 656 | .0717648 |  |
| Strongly disagree | 20 | .3988993 | .3988993 |
| 99 | 7 |  | .9050800 |
| Sig. |  | .278 | .419 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=27.228$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 2 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| family important | N | 1 |
| Strongly disagree | 20 | -.4103455 |
| Neutral | 281 | -.0381110 |
| Agree | 874 | -.0194909 |
| Disagree | 47 | .0104723 |
| Strongly agree | 656 | .0501894 |
| 99 | 7 | .3620963 |
| Sig. |  | .050 |

Means for groups in homogeneous subsets are displayed
a. Uses Harmonic Mean Sample Size $=27.228$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| family important | N | 1 |
| Agree | 874 | -.1044287 |
| Strongly disagree | 20 | -.0361238 |
| Neutral | 281 | -.0227846 |
| 99 | 7 | .1089015 |
| Strongly agree | 656 | .1388315 |
| Disagree | 47 | .1395712 |
| Sig. |  | .945 |

Means for groups in homogeneous subsets are displayed
a. Uses Harmonic Mean Sample Size $=27.228$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1

|  |  | Tukey HSD |  |  |
| :--- | ---: | ---: | ---: | :---: |
| family important | N | Subset for alpha $=0.05$ |  |  |
|  | 47 | -.3090180 |  |  |
| Disagree | 20 | -.2243155 |  |  |
| Strongly disagree | 281 | -.0957470 | -.0957470 |  |
| Neutral | 874 | -.0451605 | -.0451605 |  |
| Agree | 656 | .1243126 | .1243126 |  |
| Strongly agree | 7 |  | .5480382 |  |
| 99 |  | .595 | .161 |  |

Means for groups in homogeneous subsets are displayed
a. Uses Harmonic Mean Sample Size $=27.228$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## Oneway

[DataSet 1] F:\301109.sav

ANOVA

|  |  | Sum of Squares | df | Mean Square |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Between Groups | 15.496 | 5 | $\begin{array}{r} 3.099 \\ .994 \end{array}$ |
|  | Within Groups | 1868.504 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 14.047 | 5 | $\begin{array}{r} \hline 2.809 \\ .995 \end{array}$ |
|  | Within Groups | 1869.953 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 21.719 | 5 | $\begin{array}{r} 4.344 \\ .991 \end{array}$ |
|  | Within Groups | 1862.281 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 16.339 | 5 | $\begin{array}{r} \hline 3.268 \\ .994 \end{array}$ |
|  | Within Groups | 1867.661 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 3.117 | .008 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 2.823 | .015 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.383 | .001 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 3.288 | .006 |

## Post Hoc Tests

## Multiple Comparisons

| Dependent Variable | (I) foodie | (J) foodie | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower <br> Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | . 02280247 | . 05468486 | . 998 | -. 1331945 | . 1787995 |
|  |  | Neutral | -. 01773791 | . 06390980 | 1.000 | -. 2000505 | . 1645747 |
|  |  | Disagree | . 22395681 | . 09986669 | . 219 | -. 0609283 | . 5088419 |
|  |  | Strongly disagree | -. 64567496 | . 23845789 | . 074 | -1.3259129 | . 0345630 |
|  |  | 99 | -. 54113122 | . 40908755 | . 772 | -1.7081166 | . 6258542 |
|  | Agree | Strongly agree | -. 02280247 | . 05468486 | . 998 | -. 1787995 | . 1331945 |
|  |  | Neutral | -. 04054037 | . 06197604 | . 987 | -. 2173366 | . 1362558 |
|  |  | Disagree | . 20115434 | . 09864037 | . 320 | -. 0802325 | . 4825412 |
|  |  | Strongly disagree | -. 66847743 | . 23794691 | . 056 | -1.3472577 | . 0103029 |
|  |  | 99 | -. 56393369 | . 40878991 | . 739 | -1.7300700 | . 6022026 |
|  | Neutral | Strongly agree | . 01773791 | . 06390980 | 1.000 | -. 1645747 | . 2000505 |
|  |  | Agree | . 04054037 | . 06197604 | . 987 | -. 1362558 | . 2173366 |


|  |  | Disagree Strongly disagree 99 | .24169471 -.62793705 -.52339332 | .10403822 .24023480 .41012586 | .185 .094 .798 | -.0550904 -1.3132439 -1.6933406 | .5384798 <br> .0573698 <br> .6465540 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Disagree | Strongly agree | -. 22395681 | . 09986669 | . 219 | -. 5088419 | . 0609283 |
|  |  | Agree | -. 20115434 | . 09864037 | . 320 | -. 4825412 | . 0802325 |
|  |  | Neutral | -. 24169471 | . 10403822 | . 185 | -. 5384798 | . 0550904 |
|  |  | Strongly disagree | -.86963177 | . 25219368 | . 008 | -1.5890532 | -. 1502104 |
|  |  | 99 | -. 76508803 | . 41724347 | . 444 | -1.9553394 | . 4251634 |
|  | Strongly | Strongly agree | . 64567496 | . 23845789 | . 074 | -. 0345630 | 1.3259129 |
|  | disagree | Agree | . 66847743 | . 23794691 | . 056 | -. 0103029 | 1.3472577 |
|  |  | Neutral | . 62793705 | . 24023480 | . 094 | -. 0573698 | 1.3132439 |
|  |  | Disagree | . $86963177^{\circ}$ | . 25219368 | . 008 | . 1502104 | 1.5890532 |
|  |  | 99 | . 10454374 | . 47008608 | 1.000 | -1.2364494 | 1.4455368 |
|  | 99 | Strongly agree | . 54113122 | . 40908755 | . 772 | -. 6258542 | 1.7081166 |
|  |  | Agree | . 56393369 | . 40878991 | . 739 | -. 6022026 | 1.7300700 |
|  |  | Neutral | . 52339332 | . 41012586 | . 798 | -. 6465540 | 1.6933406 |
|  |  | Disagree | . 76508803 | . 41724347 | . 444 | -. 4251634 | 1.9553394 |
|  |  | Strongly disagree | -. 10454374 | . 47008608 | 1.000 | -1.4455368 | 1.2364494 |
| REGR factor score for analysis 1 | 2 Strongly agree | Agree | . 07218961 | . 05470606 | . 774 | -. 0838679 | . 2282471 |
|  |  | Neutral | . $22763550^{\circ}$ | . 06393458 | . 005 | . 0452523 | . 4100188 |
|  |  | Disagree | . 15758881 | . 09990540 | . 614 | -. 1274068 | . 4425844 |
|  |  | Strongly disagree | . 09498842 | . 23855033 | . 999 | -. 5855132 | . 7754901 |
|  |  | 99 | -. 24686398 | . 40924615 | . 991 | -1.4143018 | . 9205738 |
|  | Agree | Strongly agree | -. 07218961 | . 05470606 | . 774 | -. 2282471 | . 0838679 |
|  |  | Neutral | . 15544590 | . 06200006 | . 122 | -. 0214189 | . 3323107 |
|  |  | Disagree | . 08539921 | . 09867861 | . 955 | -. 1960967 | . 3668952 |
|  |  | Strongly disagree | . 02279881 | . 23803915 | 1.000 | -. 6562446 | . 7018422 |
|  |  | 99 | -. 31905358 | . 40894839 | . 971 | -1.4856420 | . 8475348 |
|  | Neutral | Strongly agree | -. 22763550 | . 06393458 | . 005 | -. 4100188 | -. 0452523 |
|  |  | Agree | -. 15544590 | . 06200006 | . 122 | -. 3323107 | . 0214189 |
|  |  | Disagree | -. 07004669 | . 10407855 | . 985 | -. 3669468 | . 2268534 |
|  |  | Strongly disagree | -. 13264708 | . 24032794 | . 994 | -. 8182196 | . 5529255 |
|  |  | 99 | -. 47449948 | . 41028486 | . 857 | -1.6449004 | . 6959014 |
|  | Disagree | Strongly agree | -. 15758881 | . 09990540 | . 614 | -. 4425844 | . 1274068 |
|  |  | Agree | -. 08539921 | . 09867861 | . 955 | -. 3668952 | . 1960967 |
|  |  | Neutral | . 07004669 | . 10407855 | . 985 | -. 2268534 | . 3669468 |
|  |  | Strongly disagree | -. 06260039 | . 25229145 | 1.000 | -. 7823007 | . 6570999 |
|  |  | 99 | -. 40445279 | . 41740523 | . 928 | -1.5951656 | . 7862601 |
|  | $\begin{aligned} & \text { Strongly } \\ & \text { disagree } \end{aligned}$ | Strongly agree | -.09498842 | . 23855033 | . 999 | -. 7754901 | . 5855132 |
|  |  | Agree | -. 02279881 | . 23803915 | 1.000 | -. 7018422 | . 6562446 |
|  |  | Neutral | . 13264708 | . 24032794 | . 994 | -. 5529255 | . 8182196 |
|  |  | Disagree | . 06260039 | . 25229145 | 1.000 | -. 6570999 | . 7823007 |
|  |  | 99 | -. 34185240 | . 47026832 | . 979 | -1.6833654 | . 9996606 |
|  | 99 | Strongly agree | . 24686398 | . 40924615 | . 991 | -. 9205738 | 1.4143018 |
|  |  | Agree | . 31905358 | . 40894839 | . 971 | -. 8475348 | 1.4856420 |
|  |  | Neutral | 47449948 | . 41028486 | . 857 | -. 6959014 | 1.6449004 |
|  |  | Disagree | . 40445279 | . 41740523 | . 928 | -. 7862601 | 1.5951656 |
|  |  | Strongly disagree | . 34185240 | . 47026832 | . 979 | -. 9996606 | 1.6833654 |
| REGR factor score for analysis 1 | Strongly agree | Agree | . 17946463 | . 05459371 | . 013 | . 0237276 | . 3352016 |
|  |  | Neutral | . $22300929^{\circ}$ | . 06380328 | . 006 | . 0410006 | . 4050180 |
|  |  | Disagree | . $35725068{ }^{\circ}$ | . 09970023 | . 005 | . 0728404 | . 6416610 |
|  |  | Strongly disagree | . 21382718 | . 23806043 | . 947 | -. 4652769 | . 8929313 |
|  |  | 99 | . 04895912 | . 40840569 | 1.000 | -1.1160812 | 1.2139994 |
|  | Agree | Strongly agree | -. 17946463 | . 05459371 | . 013 | -. 3352016 | -. 0237276 |
|  |  | Neutral | . 04354466 | . 06187274 | . 982 | -. 1329569 | . 2200462 |
|  |  | Disagree | . 17778604 | . 09847595 | . 462 | -. 1031318 | . 4587039 |
|  |  | Strongly disagree | . 03436255 | . 23755030 | 1.000 | -. 6432864 | . 7120115 |
|  |  | 99 | -. 13050551 | . 40810855 | 1.000 | -1.2946982 | 1.0336871 |
|  | Neutral | Strongly agree | -. 22300929 | . 06380328 | . 006 | -. 4050180 | -. 0410006 |


|  |  | Agree <br> Disagree <br> Strongly disagree 99 | $\begin{array}{r}-.04354466 \\ .13424138 \\ -.00918212 \\ -.17405018 \\ \hline . .\end{array}$ | .06187274 <br> .10386481 <br> .23983438 <br> .40944227 <br> 09 | .982 .789 1.000 .998 | $\begin{array}{r}-.2200462 \\ -.1620490 \\ -.6933467 \\ -1.3420475 \\ \hline-646\end{array}$ | .1329569 <br> .4305318 <br> .6749825 <br> .9939471 <br> .072804 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Disagree | Strongly agree | -. 35725068 | . 09970023 | . 005 | -. 6416610 | -. 0728404 |
|  |  | Agree | -. 17778604 | . 09847595 | . 462 | -. 4587039 | . 1031318 |
|  |  | Neutral | -. 13424138 | . 10386481 | . 789 | -. 4305318 | . 1620490 |
|  |  | Strongly disagree | -. 14342350 | . 25177333 | . 993 | -. 8616458 | . 5747988 |
|  |  | 99 | -. 30829156 | . 41654802 | . 977 | -1.4965591 | . 8799760 |
|  | Strongly | Strongly agree | -. 21382718 | . 23806043 | . 947 | -. 8929313 | . 4652769 |
|  | disagree | Agree | -. 03436255 | . 23755030 | 1.000 | -. 7120115 | . 6432864 |
|  |  | Neutral | . 00918212 | . 23983438 | 1.000 | -. 6749825 | . 6933467 |
|  |  | Disagree | . 14342350 | . 25177333 | . 993 | -. 5747988 | . 8616458 |
|  |  | 99 | -. 16486806 | . 46930255 | . 999 | -1.5036260 | 1.1738899 |
|  | 99 | Strongly agree | -. 04895912 | . 40840569 | 1.000 | -1.2139994 | 1.1160812 |
|  |  | Agree | . 13050551 | . 40810855 | 1.000 | -1.0336871 | 1.2946982 |
|  |  | Neutral | . 17405018 | . 40944227 | . 998 | -. 9939471 | 1.3420475 |
|  |  | Disagree | . 30829156 | . 41654802 | . 977 | -. 8799760 | 1.4965591 |
|  |  | Strongly disagree | . 16486806 | . 46930255 | . 999 | -1.1738899 | 1.5036260 |
| $\begin{aligned} & \text { REGR factor score } \\ & \text { for analysis } 1 \end{aligned}$ | Strongly agree | Agree | . 02945132 | . 05467252 | . 995 | -. 1265105 | . 1854131 |
|  |  | Neutral | -. 20059964 | . 06389538 | . 021 | -. 3828711 | -. 0183282 |
|  |  | Disagree | . 02995330 | . 09984416 | 1.000 | -. 2548676 | . 3147742 |
|  |  | Strongly disagree | -. 13171476 | . 23840410 | . 994 | -. 8117993 | . 5483697 |
|  |  | 99 | -. 41577644 | . 40899527 | . 913 | -1.5824986 | 7509457 |
|  | Agree | Strongly agree | -. 02945132 | . 05467252 | . 995 | -. 1854131 | . 1265105 |
|  |  | Neutral | -. 23005096 | . 06196206 | . 003 | -. 4068073 | -. 0532946 |
|  |  | Disagree | . 00050198 | . 09861811 | 1.000 | -. 2808214 | . 2818254 |
|  |  | Strongly disagree | -. 16116609 | . 23789323 | . 984 | -. 8397933 | . 5174611 |
|  |  | 99 | -. 44522777 | . 40869770 | . 886 | -1.6111010 | 7206455 |
|  | Neutral | Strongly agree | . 20059964 | . 06389538 | . 021 | . 0183282 | . 3828711 |
|  |  | Agree | 23005096 | . 06196206 | . 003 | . 0532946 | . 4068073 |
|  |  | Disagree | . 23055294 | . 10401475 | . 230 | -. 0661652 | . 5272711 |
|  |  | Strongly disagree | . 06888487 | . 24018061 | 1.000 | -. 6162674 | . 7540371 |
|  |  | 99 | -. 21517681 | . 41003335 | . 995 | -1.3848602 | . 9545066 |
|  | Disagree | Strongly agree | -. 02995330 | . 09984416 | 1.000 | -. 3147742 | . 2548676 |
|  |  | Agree | -. 00050198 | . 09861811 | 1.000 | -. 2818254 | . 2808214 |
|  |  | Neutral | -. 23055294 | . 10401475 | . 230 | -. 5272711 | . 0661652 |
|  |  | Strongly disagree | -. 16166806 | . 25213679 | . 988 | -. 8809272 | . 5575911 |
|  |  | 99 | -. 44572974 | . 41714935 | . 894 | -1.6357127 | . 7442532 |
|  | Strongly disagree | Strongly agree | . 13171476 | . 23840410 | . 994 | -. 5483697 | . 8117993 |
|  |  | Agree | . 16116609 | . 23789323 | . 984 | -. 5174611 | . 8397933 |
|  |  | Neutral | -. 06888487 | . 24018061 | 1.000 | -. 7540371 | . 6162674 |
|  |  | Disagree | . 16166806 | . 25213679 | . 988 | -. 5575911 | . 8809272 |
|  |  | 99 | -. 28406168 | . 46998004 | . 991 | -1.6247523 | 1.0566289 |
|  | 99 | Strongly agree | . 41577644 | . 40899527 | . 913 | -.7509457 | 1.5824986 |
|  |  | Agree | . 44522777 | . 40869770 | . 886 | -. 7206455 | 1.6111010 |
|  |  | Neutral | . 21517681 | . 41003335 | . 995 | -. 9545066 | 1.3848602 |
|  |  | Disagree | . 44572974 | . 41714935 | . 894 | -. 7442532 | 1.6357127 |
|  |  | Strongly disagree | . 28406168 | . 46998004 | . 991 | -1.0566289 | 1.6247523 |

[^7]
## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| foodie |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Disagree | 119 | -.2127406 |  |
| Agree | 724 | -.0115863 | -.0115863 |
| Strongly agree | 615 | .0112162 | .0112162 |
| Neutral | 403 | .0289541 | .0289541 |
| 99 | 6 | .5523474 | .5523474 |
| Strongly disagree | 18 |  | .6568912 |
| Sig. |  | .069 | .160 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=25.411$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 2 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| foodie | N | 1 |
| Neutral | 403 | -.1411718 |
| Disagree | 119 | -.0711251 |
| Strongly disagree | 18 | -.0085247 |
| Agree | 724 | .0142741 |
| Strongly agree | 615 | .0864637 |
| 99 | 6 | .3333277 |
| Sig. |  | .535 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=25.411$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 3 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| foodie | N | 1 |
| Disagree | 119 | -.2158923 |
| Neutral | 403 | -.0816509 |
| Strongly disagree | 18 | -.0724688 |
| Agree | 724 | -.0381062 |
| 99 | 6 | .0923993 |
| Strongly agree | 615 | .1413584 |
| Sig. |  | .797 |

Means for groups in homogeneous subsets are
displayed.
a. Uses Harmonic Mean Sample Size $=25.411$.
b. The group sizes are unequal. The harmonic mean of
the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
|  |  | 1 |
| foodie | N | 119 |
| Disagree | 724 | -.0622185 |
| Agree | 615 | -.0617166 |
| Strongly agree | 18 | -.0322652 |
| Strongly disagree | 403 | .0994495 |
| Neutral | 6 | .1683344 |
| 99 |  | .3835112 |
| Sig. | .603 |  |

Means for groups in homogeneous subsets are
displayed.
a. Uses Harmonic Mean Sample Size $=25.411$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY trust
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

[DataSet1] F:\301109.sav

| ANOVA |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Sum of Squares | df | Mean Square |
| REGR factor score 1 for analysis 1 | Between Groups | 24.345 | 5 | 4.869 |
|  | Within Groups | 1859.655 | 1879 | . 990 |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 8.534 | 5 | 1.707 |
|  | Within Groups | 1875.466 | 1879 | . 998 |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 14.481 | 5 | 2.896 |
|  | Within Groups | 1869.519 | 1879 | . 995 |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 53.437 | 5 | 10.687 |
|  | Within Groups | 1830.563 | 1879 | . 974 |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.920 | .000 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.710 | .129 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 2.911 | .013 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 10.970 | .000 |

## Post Hoc Tests

Multiple Comparisons

| Dependent Variable | (I) trusting | (J) trusting | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | . 20615672 | $\begin{array}{r} .0557440 \\ 6 \end{array}$ | . 003 | . 0471382 | . 3651753 |
|  |  | Neutral | . 22968899 | .0680722 0 | . 010 | . 0355025 | . 4238755 |
|  |  | Disagree | . 25657143 | $\begin{array}{r} .0983690 \\ 9 \end{array}$ | . 096 | -. 0240416 | . 5371844 |
|  |  | Strongly disagree | -. 33917677 | $\begin{array}{r} .2385959 \\ 0 \end{array}$ | . 714 | -1.0198084 | . 3414549 |
|  |  | 99 | -. 28808113 | $\begin{array}{r} .3031790 \\ 9 \end{array}$ | . 933 | $-1.1529463$ | . 5767840 |
|  | Agree | Strongly agree | -. 20615672 | $\begin{array}{r} \hline .0557440 \\ 6 \end{array}$ | . 003 | -. 3651753 | -. 0471382 |
|  |  | Neutral | . 02353228 | $\begin{array}{r} .0620677 \\ 5 \end{array}$ | . 999 | -. 1535256 | . 2005901 |
|  |  | Disagree | . 05041471 | $\begin{array}{r} .0943136 \\ 2 \end{array}$ | . 995 | -. 2186294 | . 3194589 |
|  |  | Strongly disagree | -. 54533349 | $\begin{array}{r} .2369527 \\ 0 \end{array}$ | . 194 | $-1.2212777$ | . 1306107 |
|  |  | 99 | -. 49423785 | $\begin{array}{r} .3018876 \\ 3 \end{array}$ | . 574 | $-1.3554189$ | . 3669432 |
|  | Neutral | Strongly agree | -. $22968899{ }^{*}$ | $\begin{array}{r} \hline .0680722 \\ 0 \end{array}$ | . 010 | -. 4238755 | -. 0355025 |
|  |  | Agree | -. 02353228 | $\begin{array}{r} .0620677 \\ 5 \end{array}$ | . 999 | -. 2005901 | . 1535256 |
|  |  | Disagree | . 02688243 | $\begin{array}{r} .1020856 \\ 6 \end{array}$ | 1.000 | -. 2643327 | . 3180975 |
|  |  | Strongly disagree | -. 56886577 | $\begin{array}{r} 2401520 \\ 5 \end{array}$ | . 168 | -1.2539366 | . 1162050 |
|  |  | 99 | -. 51777012 | $\begin{array}{r} .3044052 \\ 7 \end{array}$ | . 531 | $-1.3861331$ | . 3505929 |
|  | Disagree | Strongly agree | -. 25657143 | $\begin{array}{r} \hline .0983690 \\ 9 \end{array}$ | . 096 | -. 5371844 | . 0240416 |
|  |  | Agree | -. 05041471 | $\begin{array}{r} .0943136 \\ 2 \end{array}$ | . 995 | -. 3194589 | . 2186294 |
|  |  | Neutral | -. 02688243 | $\begin{array}{r} 1020856 \\ 6 \end{array}$ | 1.000 | -. 3180975 | . 2643327 |
|  |  | Strongly disagree | -. 59574820 | $\begin{array}{r} 2504309 \\ 5 \end{array}$ | . 164 | $-1.3101411$ | . 1186447 |
|  |  | 99 | -. 54465256 | $\begin{array}{r} .3125783 \\ 4 \\ \hline \end{array}$ | . 504 | $-1.4363305$ | . 3470254 |
|  | Strongly disagree | Strongly agree | . 33917677 | $\begin{array}{r} 2385959 \\ 0 \end{array}$ | . 714 | -. 3414549 | 1.0198084 |
|  |  | Agree | . 54533349 | $\begin{array}{r} .2369527 \\ 0 \end{array}$ | . 194 | -. 1306107 | 1.2212777 |
|  |  | Neutral | . 56886577 | $\begin{array}{r} 2401520 \\ 5 \end{array}$ | . 168 | -. 1162050 | 1.2539366 |
|  |  | Disagree | . 59574820 | $\begin{array}{r} 2504309 \\ 5 \end{array}$ | . 164 | -. 1186447 | 1.3101411 |
|  |  | 99 | . 05109564 | $\begin{array}{r} .3807318 \\ 6 \end{array}$ | 1.000 | $-1.0350008$ | 1.1371920 |
|  | 99 | Strongly agree | . 28808113 | .3031790 9 | . 933 | -. 5767840 | 1.1529463 |
|  |  | Agree | . 49423785 | $\begin{array}{r} .3018876 \\ 3 \end{array}$ | . 574 | -. 3669432 | 1.3554189 |
|  |  | Neutral | . 51777012 | $\begin{array}{r} .3044052 \\ 7 \end{array}$ | . 531 | -. 3505929 | 1.3861331 |
|  |  | Disagree | . 54465256 | $\begin{array}{r} .3125783 \\ 4 \end{array}$ | . 504 | -. 3470254 | 1.4363305 |
|  |  | Strongly disagree | -. 05109564 | $\begin{array}{r} 3807318 \\ 6 \\ \hline \end{array}$ | 1.000 | -1.1371920 | 1.0350008 |



|  |  | Disagree <br> Strongly disagree 99 | -.09610293 -.27315028 -.07035090 | $\begin{array}{r} .0945634 \\ 0 \\ .2375802 \\ 7 \\ .3026871 \\ 7 \end{array}$ | .913 .860 1.000 | -.3658596 -.9508847 -.9338128 | .1736538 .4045841 .7931110 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Neutral | Strongly agree | $-.21658696$ | $\begin{array}{r} \hline .0682524 \\ 9 \end{array}$ | . 019 | -. 4112877 | -. 0218862 |
|  |  | Agree | -. 03930558 | .0622321 <br> 3 | . 989 | -. 2168323 | . 1382212 |
|  |  | Disagree | -. 13540850 | $\begin{array}{r} 1023560 \\ 3 \end{array}$ | . 772 | -. 4273949 | . 1565779 |
|  |  | Strongly disagree | -. 31245585 | $\begin{array}{r} 2407880 \\ 9 \end{array}$ | . 786 | -. 9993410 | . 3744293 |
|  |  | 99 | -. 10965647 | $\begin{array}{r}\text { r } \\ \hline 8052114 \\ 8 \\ \hline\end{array}$ | . 999 | -. 9803193 | . 7610064 |
|  | Disagree | Strongly agree | -. 08117846 | $\begin{array}{r} 0986296 \\ 2 \end{array}$ | .963 | -. 3625347 | . 2001778 |
|  |  | Agree | . 09610293 | .0945634 0 | . 913 | -. 1736538 | . 3658596 |
|  |  | Neutral | . 13540850 | 1023560 3 | . 772 | -. 1565779 | . 4273949 |
|  |  | Strongly disagree | -. 17704735 | $\begin{array}{r} .2510942 \\ 1 \end{array}$ | . 981 | -. 8933323 | . 5392376 |
|  |  | 99 | . 02575203 | $\begin{array}{r} .3134062 \\ 0 \end{array}$ | 1.000 | -. 8682875 | . 9197916 |
|  | Strongly disagree | Strongly agree | . 09586889 | $\text { . } 2392278$ | . 999 | $-.5865654$ | . 7783032 |
|  |  | Agree | . 27315028 | $\begin{array}{r}2375802 \\ 7 \\ \hline\end{array}$ | . 860 | -. 4045841 | . 9508847 |
|  |  | Neutral | . 31245585 | $\begin{array}{r} .2407880 \\ 9 \end{array}$ | . 786 | -. 3744293 | . 9993410 |
|  |  | Disagree | . 17704735 | . 2510942 | . 981 | -. 5392376 | . 8933323 |
|  |  | 99 | . 20279938 | . 3817402 1 | . 995 | -. 8861735 | 1.2917723 |
|  | 99 | Strongly agree | -. 10693049 | $\begin{array}{r} \hline .3039820 \\ 5 \end{array}$ | . 999 | -. 9740862 | . 7602252 |
|  |  | Agree | . 07035090 | $\begin{array}{r} .3026871 \\ 7 \end{array}$ | 1.000 | -. 7931110 | . 9338128 |
|  |  | Neutral | . 10965647 | $\begin{array}{r} 3052114 \\ 8 \end{array}$ | . 999 | -. 7610064 | . 9803193 |
|  |  | Disagree | -. 02575203 | $.3134062$ | 1.000 | -. 9197916 | . 8682875 |
|  |  | Strongly disagree | -. 20279938 | $\begin{array}{r}\text {. } 3817402 \\ 1 \\ \hline\end{array}$ | . 995 | -1.2917723 | . 8861735 |
| REGR factor score 4for analysis 1 | Strongly agree | Agree | . 22286023 | r 0553063 | . 001 | . 0650904 | . 3806300 |
|  |  | Neutral | . $35544364^{\circ}$ | $\begin{array}{r} .0675376 \\ 5 \end{array}$ | . 000 | . 1627821 | . 5481052 |
|  |  | Disagree | . $61657560^{\circ}$ | $0975966$ | . 000 | . 3381662 | . 8949850 |
|  |  | Strongly disagree | . 19660484 | $\begin{array}{r} 2367222 \\ 6 \end{array}$ | . 962 | -. 4786820 | . 8718916 |
|  |  | 99 | -. 20722984 | $\begin{array}{r} .3007983 \\ 0 \end{array}$ | . 983 | -1.0653034 | . 6508437 |
|  | Agree | Strongly agree | -. 22286023 | $.0553063$ | . 001 | -. 3806300 | -. 0650904 |
|  |  | Neutral | . 13258341 | $.0615803$ | . 261 | -. 0430840 | . 3082508 |
|  |  | Disagree | . $39371538^{*}$ | $0935729$ | . 000 | . 1267840 | . 6606468 |
|  |  | Strongly disagree | -. 02625539 | $\begin{array}{r} 2350919 \\ 7 \end{array}$ | 1.000 | -. 6968915 | . 6443807 |
|  |  | 99 | -. 43009007 | $\text { . } 2995169$ | . 705 | -1.2845085 | . 4243284 |
|  | Neutral | Strongly agree | -.35544364* | $\begin{array}{r} .0675376 \\ 5 \end{array}$ | . 000 | -. 5481052 | -. 1627821 |
|  |  | Agree | -. 13258341 | $.0615803$ | . 261 | -. 3082508 | . 0430840 |
|  |  | Disagree | . 26113196 | .1012840 1 | . 103 | -. 0277963 | . 5500602 |


|  | Strongly disagree 99 | -.15883880 -.56267348 | $\begin{array}{r} .2382662 \\ 0 \\ .3020148 \\ 5 \end{array}$ | .986 .425 | $\begin{gathered} -.8385299 \\ -1.4242175 \end{gathered}$ | $\begin{aligned} & .5208523 \\ & .2988705 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Disagree | Strongly agree | -.61657560** | $\begin{array}{r} .0975966 \\ 2 \end{array}$ | . 000 | -. 8949850 | -. 3381662 |
|  | Agree | $-.39371538^{*}$ | $\begin{array}{r} .0935729 \\ 9 \end{array}$ | . 000 | -. 6606468 | -. 1267840 |
|  | Neutral | -. 26113196 | $\begin{array}{r} .1012840 \\ 1 \end{array}$ | . 103 | -. 5500602 | . 0277963 |
|  | Strongly disagree | -. 41997076 | $\begin{array}{r} 2484643 \\ 8 \end{array}$ | . 538 | $-1.1287538$ | . 2888122 |
|  | 99 | -. 82380544 | $\begin{array}{r} .3101237 \\ 4 \end{array}$ | . 085 | -1.7084813 | . 0608704 |
| Strongly disagree | Strongly agree | -. 19660484 | $\begin{array}{r} .2367222 \\ 6 \end{array}$ | . 962 | -. 8718916 | . 4786820 |
|  | Agree | . 02625539 | $\begin{array}{r} .2350919 \\ 7 \end{array}$ | 1.000 | -. 6443807 | . 6968915 |
|  | Neutral | . 15883880 | $\begin{array}{r} .2382662 \\ 0 \end{array}$ | . 986 | -. 5208523 | . 8385299 |
|  | Disagree | . 41997076 | $\begin{array}{r} .2484643 \\ 8 \end{array}$ | . 538 | -. 2888122 | 1.1287538 |
|  | 99 | -. 40383468 | $\begin{array}{r} .3777420 \\ 6 \end{array}$ | . 894 | -1.4814022 | . 6737329 |
| 99 | Strongly agree | . 20722984 | $\begin{array}{r} .3007983 \\ 0 \end{array}$ | . 983 | -. 6508437 | 1.0653034 |
|  | Agree | . 43009007 | $\begin{array}{r} 2995169 \\ 8 \end{array}$ | . 705 | -. 4243284 | 1.2845085 |
|  | Neutral | . 56267348 | $\begin{array}{r} .3020148 \\ 5 \end{array}$ | .425 | -. 2988705 | 1.4242175 |
|  | Disagree | . 82380544 | $\begin{array}{r} .3101237 \\ 4 \end{array}$ | . 085 | -. 0608704 | 1.7084813 |
|  | Strongly disagree | . 40383468 | . 3777420 | . 894 | -. 6737329 | 1.4814022 |

*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

## REGR factor score 1 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

| trusting |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
|  | N | 1 |
| Disagree | 128 | -.1061566 |
| Neutral | 368 | -.0792741 |
| Agree | 851 | -.0557419 |
| Strongly agree | 509 | .1504148 |
| 99 | 11 | .4384960 |
| Strongly disagree | 18 | .4895916 |
| Sig. |  | .100 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=37.469$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 2 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
|  |  | 1 |
| trusting | N | 851 |
| Agree | 18 | -.0634330 |
| Strongly disagree | 368 | -.0617661 |
| Neutral | 509 | .0108509 |
| Strongly agree | 128 | .0703522 |
| Disagree | 11 | .368200 |
| 99 |  | .421 |
| Sig. |  |  |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=37.469$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> 0.05 |
| :--- | ---: | ---: |
| trusting | N |  |
| Neutral | 368 | -.0890475 |
| Agree | 851 | -.0497419 |
| 99 | 11 | .0206090 |
| Disagree | 128 | .0463610 |
| Strongly agree | 509 | .1275395 |
| Strongly disagree | 18 | .2234084 |
| Sig. | .753 |  |

Means for groups in homogeneous subsets are
displayed.
a. Uses Harmonic Mean Sample Size $=37.469$
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: |
|  | N |  | Subset for alpha $=0.05$ |  |
| trusting | 128 | -.4040354 | 2 |  |
| Disagree | 368 | -.1429034 | -.1429034 |  |
| Neutral | 851 | -.0103200 | -.0193200 |  |
| Agree | 18 | .0159354 | .0159354 |  |
| Strongly disagree | 509 | .2125402 | .2125402 |  |
| Strongly agree | 11 |  | .4197701 |  |
| 99 |  | .075 | .134 |  |
| Sig. |  |  |  |  |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=37.469$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## Oneway

[DataSet1] F:\301109.sav

ANOVA

|  |  | Sum of Squares | df | Mean Square |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Between Groups | 9.793 | 5 | $\begin{array}{r} 1.959 \\ .997 \end{array}$ |
|  | Within Groups | 1874.207 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 21.106 | 5 | $\begin{array}{r} 4.221 \\ .991 \end{array}$ |
|  | Within Groups | 1862.894 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 46.132 | 5 | $\begin{array}{r} 9.226 \\ .978 \end{array}$ |
|  | Within Groups | 1837.868 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 7.917 | 5 | $\begin{array}{r} \hline 1.583 \\ .998 \end{array}$ |
|  | Within Groups | 1876.083 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.964 | .081 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 4.258 | .001 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 9.433 | .000 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.586 | .161 |

## Post Hoc Tests

## Multiple Comparisons

| Dependent Variable | (I) food interests | (J) food interests | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | -. 00177874 | $\begin{array}{r} .0499166 \\ 5 \end{array}$ | 1.000 | -. 1441737 | . 1406162 |
|  |  | Neutral | -. 08012745 | $\begin{array}{r} .0880448 \\ 2 \end{array}$ | . 944 | -. 3312889 | . 1710340 |
|  |  | Disagree | . 15237322 | $\begin{array}{r} .1849725 \\ 1 \end{array}$ | . 963 | -. 3752894 | . 6800359 |
|  |  | Strongly disagree | $-.32764778$ | $\begin{array}{r} .2442130 \\ 3 \end{array}$ | . 762 | -1.0243032 | . 3690076 |
|  |  | 99 | -1.14284172 | .4477235 4 | . 110 | -2.4200422 | . 1343588 |
|  | Agree | Strongly agree | . 00177874 | $\begin{array}{r} \hline .0499166 \\ 5 \end{array}$ | 1.000 | -. 1406162 | . 1441737 |
|  |  | Neutral | -. 07834871 | .0911620 6 | . 956 | -. 3384026 | . 1817051 |


|  |  | Disagree <br> Strongly disagree 99 | $\begin{array}{r}.15415196 \\ -.32586905 \\ -1.14106298 \\ \hline\end{array}$ | $\begin{array}{r} 1864764 \\ 3 \\ .2453541 \\ 0 \\ .4483469 \\ 6 \end{array}$ | .963 .769 .112 | -.3778008 -1.0257795 -2.4200419 | .6861048 .3740414 .1379159 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Neutral | Strongly agree | . 08012745 | $\begin{array}{r} \hline .0880448 \\ 2 \end{array}$ | . 944 | -. 1710340 | . 3312889 |
|  |  | Agree | . 07834871 | $\begin{array}{r} .0911620 \\ 6 \end{array}$ | . 956 | -. 1817051 | . 3384026 |
|  |  | Disagree | . 23250067 | $2000841 .$ | 855 | -. 3382703 | . 8032717 |
|  |  | Strongly disagree | -. 24752033 | $\begin{array}{r} 2558492 \\ 8 \end{array}$ | . 928 | -. 9773699 | . 4823292 |
|  |  | 99 | -1.06271427 |  <br> 1541753 <br> 1 | . 179 | -2.3583195 | . 2328909 |
|  | Disagree | Strongly agree | -. 15237322 | $\text { . } 1849725$ | . 963 | -.6800359 | . 3752894 |
|  |  | Agree | -. 15415196 | $\begin{array}{r} .1864764 \\ 3 \end{array}$ | . 963 | -. 6861048 | . 3778008 |
|  |  | Neutral | -. 23250067 | $2000841$ | . 855 | -. 8032717 | . 3382703 |
|  |  | Strongly disagree | -. 48002101 | $\begin{array}{r} .3031860 \\ 7 \end{array}$ | . 610 | -1.3449061 | . 3848641 |
|  |  | 99 | -1.29521494 | $\begin{array}{r} 4824294 \\ 3 \end{array}$ | . 079 | -2.6714194 | . 0809895 |
|  | Strongly disagree | Strongly agree | . 32764778 | $\begin{array}{r} 2442130 \\ 3 \end{array}$ | . 762 | $-.3690076$ | 1.0243032 |
|  |  | Agree | . 32586905 | $\begin{array}{r} .2453541 \\ 0 \end{array}$ | . 769 | -. 3740414 | 1.0257795 |
|  |  | Neutral | . 24752033 | $\begin{array}{r} 2558492 \\ 8 \end{array}$ | . 928 | -. 4823292 | . 9773699 |
|  |  | Disagree | . 48002101 | $.3031860$ | 610 | -. 3848641 | 1.3449061 |
|  |  | 99 | -. 81519393 | $\begin{array}{r} .5080977 \\ 6 \\ \hline \end{array}$ | . 596 | -2.2646212 | . 6342334 |
|  | 99 | Strongly agree | 1.14284172 | $.4477235$ | . 110 | -. 1343588 | 2.4200422 |
|  |  | Agree | 1.14106298 | $\begin{array}{r} .4483469 \\ 6 \end{array}$ | . 112 | -. 1379159 | 2.4200419 |
|  |  | Neutral | 1.06271427 | $.4541753$ | . 179 | -. 2328909 | 2.3583195 |
|  |  | Disagree | 1.29521494 | $\begin{array}{r} .4824294 \\ 3 \end{array}$ | . 079 | -. 0809895 | 2.6714194 |
|  |  | Strongly disagree | . 81519393 | $\begin{array}{r} .5080977 \\ 6 \\ \hline \end{array}$ | . 596 | -. 6342334 | 2.2646212 |
| REGR factor score 2 for analysis 1 | Strongly agree | Agree | . $1685156{ }^{\circ}$ | $\begin{array}{r} .0497657 \\ 7 \end{array}$ | . 009 | 0265511 | . 3104802 |
|  |  | Neutral | . $25676430^{\circ}$ | $0877786$ | . 041 | . 0063621 | . 5071665 |
|  |  | Disagree | . 43473592 | $\begin{array}{r} .1844133 \\ 8 \end{array}$ | . 172 | -. 0913317 | 9608036 |
|  |  | Strongly disagree | . 12265721 | $\begin{array}{r} .2434748 \\ 4 \end{array}$ | . 996 | -. 5718924 | . 8172068 |
|  |  | 99 | -. 37510640 | $\begin{array}{r} .4463701 \\ 9 \end{array}$ | . 960 | -1.6484463 | . 8982335 |
|  | Agree | Strongly agree | -. $16851562^{\circ}$ | $\begin{array}{r} .0497657 \\ 7 \end{array}$ | . 009 | -. 3104802 | -. 0265511 |
|  |  | Neutral | . 08824868 | $\begin{array}{r} 0908865 \\ 0 \end{array}$ | . 927 | -. 1710191 | . 3475164 |
|  |  | Disagree | . 26622030 | $\begin{array}{r} .1859127 \\ 6 \end{array}$ | . 707 | -. 2641246 | . 7965652 |
|  |  | Strongly disagree | -. 04585841 | $\begin{array}{r} .2446124 \\ 6 \end{array}$ | 1.000 | -. 7436532 | . 6519364 |
|  |  | 99 | -. 54362201 | $\begin{array}{r} 4469917 \\ 3 \end{array}$ | . 829 | -1.8187349 | . 7314909 |
|  | Neutral | Strongly agree | $-.25676430^{\circ}$ | $\begin{array}{r} \hline 0877786 \\ 8 \end{array}$ | . 041 | -. 5071665 | -. 0063621 |
|  |  | Agree | -. 08824868 | 0908865 0 | . 927 | -. 3475164 | . 1710191 |


|  |  | Disagree <br> Strongly disagree 99 | .17797162 -.13410709 -.63187069 | $\begin{array}{r} .1994793 \\ 7 \\ .2550759 \\ 1 \\ .4528024 \\ 6 \end{array}$ | .948 .995 .730 | -.3910741 -.8617505 -1.9235596 | .7470173 .5935363 .6598182 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Disagree | Strongly agree | -. 43473592 | $\begin{array}{r} \hline 1844133 \\ 8 \end{array}$ | . 172 | -. 9608036 | . 0913317 |
|  |  | Agree | -. 26622030 | $\begin{array}{r} .1859127 \\ 6 \end{array}$ | . 707 | -. 7965652 | . 2641246 |
|  |  | Neutral | -. 17797162 | . 1994793 | . 948 | -. 7470173 | . 3910741 |
|  |  | Strongly disagree | -. 31207871 | $\begin{array}{r} .3022696 \\ 2 \end{array}$ | . 907 | -1.1743495 | . 5501920 |
|  |  | 99 | -. 80984231 | $\begin{array}{r}4809711 \\ 7 \\ \hline\end{array}$ | . 543 | -2.1818868 | . 5622022 |
|  | Strongly disagree | Strongly agree | -. 12265721 | $\begin{array}{r} \hline 2434748 \\ 4 \end{array}$ | . 996 | -.8172068 | . 5718924 |
|  |  | Agree | . 04585841 | $\begin{array}{r} .2446124 \\ 6 \end{array}$ | 1.000 | -. 6519364 | . 7436532 |
|  |  | Neutral | . 13410709 | $\begin{array}{r} .2550759 \\ 1 \end{array}$ | . 995 | -. 5935363 | . 8617505 |
|  |  | Disagree | . 31207871 | $3022696$ | . 907 | -. 5501920 | 1.1743495 |
|  |  | 99 | -. 49776360 | $.5065619$ | . 924 | -1.9428097 | . 9472824 |
|  | 99 | Strongly agree | . 37510640 | $4463701$ | . 960 | -. 8982335 | 1.6484463 |
|  |  | Agree | . 54362201 | 4469917 <br> 3 | . 829 | -. 7314909 | 1.8187349 |
|  |  | Neutral | . 63187069 | $.4528024$ | . 730 | -. 6598182 | 1.9235596 |
|  |  | Disagree | . 80984231 | $.4809711$ | . 543 | -. 5622022 | 2.1818868 |
|  |  | Strongly disagree | . 49776360 | \| 5065619 | . 924 | -. 9472824 | 1.9428097 |
| $\begin{aligned} & \begin{array}{l} \text { REGR factor score } \\ \text { for analvsis } 1 \end{array} \end{aligned}$ for analysis 1 | Strongly agree | Agree | . 27503580 | $\begin{array}{r} \hline .0494303 \\ 6 \end{array}$ | . 000 | . 1340281 | . 4160435 |
|  |  | Neutral | . $40101236{ }^{\circ}$ | $\begin{array}{r} .0871870 \\ 8 \end{array}$ | . 000 | 1522978 | . 6497270 |
|  |  | Disagree | . 41604798 | $.1831704$ | . 206 | -. 1064741 | . 9385701 |
|  |  | Strongly disagree | -. 17528935 | $\begin{array}{r} 2418338 \\ 9 \end{array}$ | . 979 | -. 8651579 | . 5145792 |
|  |  | 99 | . 27832143 | $\begin{array}{r} 4433617 \\ 8 \end{array}$ | . 989 | -. 9864365 | 1.5430794 |
|  | Agree | Strongly agree | -.27503580 | $\begin{array}{r} \hline .0494303 \\ 6 \end{array}$ | . 000 | -. 4160435 | $-.1340281$ |
|  |  | Neutral | . 12597656 | $.0902739$ | . 730 | -. 1315438 | . 3834969 |
|  |  | Disagree | . 14101218 | $\text { . } 1846597$ | . 973 | -. 3857583 | . 6677827 |
|  |  | Strongly disagree | -. 45032515 | $\begin{array}{r} .2429638 \\ 5 \end{array}$ | . 432 | -1.1434170 | . 2427667 |
|  |  | 99 | . 00328563 | $\begin{array}{r} 4439791 \\ 3 \\ \hline \end{array}$ | 1.000 | -1.2632334 | 1.2698047 |
|  | Neutral | Strongly agree | -. 40101236 | $\begin{array}{\|r\|} \hline .0871870 \\ 8 \end{array}$ | . 000 | -. 6497270 | -. 1522978 |
|  |  | Agree | -. 12597656 | $\begin{array}{r} .0902739 \\ 5 \end{array}$ | . 730 | -. 3834969 | . 1315438 |
|  |  | Disagree | . 01503562 | $\begin{array}{r} 1981349 \\ 4 \end{array}$ | 1.000 | -. 5501749 | . 5802461 |
|  |  | Strongly disagree | -. 57630171 | $\begin{array}{r} 2533567 \\ 8 \end{array}$ | . 205 | -1.2990410 | . 1464376 |
|  |  | 99 | -. 12269093 | $\begin{array}{r} 4497507 \\ 1 \end{array}$ | 1.000 | -1.4056742 | 1.1602924 |
|  | Disagree | Strongly agree | -. 41604798 | $\begin{array}{r} \hline .1831704 \\ 9 \end{array}$ | 206 | -. 9385701 | . 1064741 |
|  |  | Agree | -. 14101218 | . 1846597 | . 973 | -. 6677827 | . 3857583 |
|  |  | Neutral | -. 01503562 | . 1981349 | 1.000 | -. 5802461 | . 5501749 |
|  |  | Strongly disagree | -. 59133733 | . 3002324 | . 360 | -1.4477966 | . 2651220 |


|  |  | 99 | -. 13772655 | .4777295 7 | 1.000 | -1.5005239 | 1.2250708 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Strongly disagree | Strongly agree | . 17528935 | $\begin{array}{r} .2418338 \\ 9 \end{array}$ | . 979 | -. 5145792 | . 8651579 |
|  |  | Agree | . 45032515 | $\begin{array}{r} .2429638 \\ 5 \end{array}$ | . 432 | -. 2427667 | 1.1434170 |
|  |  | Neutral | . 57630171 | $\begin{array}{r} .2533567 \\ 8 \end{array}$ | . 205 | -. 1464376 | 1.2990410 |
|  |  | Disagree | . 59133733 | $.3002324$ | . 360 | -. 2651220 | 1.4477966 |
|  |  | 99 | . 45361078 | $\begin{array}{r} .5031478 \\ 3 \end{array}$ | . 946 | -. 9816961 | 1.8889176 |
|  | 99 | Strongly agree | -. 27832143 | $\begin{array}{r} \hline 4433617 \\ 8 \end{array}$ | . 989 | -1.5430794 | . 9864365 |
|  |  | Agree | -. 00328563 | $\begin{array}{r} .4439791 \\ 3 \end{array}$ | 1.000 | $-1.2698047$ | 1.2632334 |
|  |  | Neutral | . 12269093 | $\begin{array}{r} .4497507 \\ 1 \end{array}$ | 1.000 | $-1.1602924$ | 1.4056742 |
|  |  | Disagree | . 13772655 | $\begin{array}{r} .4777295 \\ 7 \end{array}$ | 1.000 | $-1.2250708$ | 1.5005239 |
|  |  | Strongly disagree | -. 45361078 | $\begin{array}{r} .5031478 \\ 3 \end{array}$ | . 946 | $-1.8889176$ | . 9816961 |
| REGR factor score 4 for analysis 1 | Strongly agree | Agree | . 09672058 | $\begin{array}{r} .0499416 \\ 2 \end{array}$ | . 380 | -. 0457456 | . 2391868 |
|  |  | Neutral | -. 07405751 | $.0880888$ | . 960 | -. 3253446 | . 1772296 |
|  |  | Disagree | . 13804386 | $.1850650$ | . 976 | -. 3898827 | . 6659705 |
|  |  | Strongly disagree | . 12092684 | $\begin{array}{r} 2443352 \\ 0 \end{array}$ | . 996 | -. 5760770 | . 8179307 |
|  |  | 99 | -. 60169030 | $\begin{array}{r} .4479475 \\ 1 \end{array}$ | . 761 | -1.8795297 | . 6761491 |
|  | Agree | Strongly agree | -. 09672058 | $\begin{array}{r} \hline .0499416 \\ 2 \end{array}$ | . 380 | -. 2391868 | . 0457456 |
|  |  | Neutral | -. 17077809 | $\begin{array}{r} .0912076 \\ 6 \end{array}$ | . 420 | -. 4309620 | . 0894058 |
|  |  | Disagree | . 04132328 | $\begin{array}{r} .1865697 \\ 2 \end{array}$ | 1.000 | -. 4908956 | . 5735422 |
|  |  | Strongly disagree | . 02420626 | $\begin{array}{r} .2454768 \\ 4 \end{array}$ | 1.000 | -. 6760543 | . 7244668 |
|  |  | 99 | -. 69841088 | $\begin{array}{r} .4485712 \\ 5 \end{array}$ | . 627 | -1.9780296 | . 5812078 |
|  | Neutral | Strongly agree | . 07405751 | $\begin{array}{r} \hline .0880888 \\ 6 \end{array}$ | . 960 | -. 1772296 | . 3253446 |
|  |  | Agree | . 17077809 | $\begin{array}{r} .0912076 \\ 6 \end{array}$ | . 420 | -. 0894058 | . 4309620 |
|  |  | Disagree | . 21210136 | $\begin{array}{r} .2001842 \\ 7 \end{array}$ | . 897 | -. 3589552 | . 7831579 |
|  |  | Strongly disagree | . 19498435 | $\begin{array}{r} .2559772 \\ 7 \end{array}$ | . 974 | -. 5352303 | . 9251990 |
|  |  | 99 | -. 52763280 | $\begin{array}{r} 4544025 \\ 2 \end{array}$ | . 855 | -1.8238861 | . 7686205 |
|  | Disagree | Strongly agree | -. 13804386 | .1850650 4 | . 976 | -. 6659705 | . 3898827 |
|  |  | Agree | -. 04132328 | $\begin{array}{r} .1865697 \\ 2 \end{array}$ | 1.000 | -. 5735422 | . 4908956 |
|  |  | Neutral | -. 21210136 | $\begin{array}{r} .2001842 \\ 7 \end{array}$ | . 897 | -. 7831579 | . 3589552 |
|  |  | Strongly disagree | -. 01711702 | .3033377 4 | 1.000 | -. 8824347 | . 8482007 |
|  |  | 99 | -. 73973416 | $\begin{array}{r} 4826707 \\ 6 \end{array}$ | . 643 | $-2.1166270$ | . 6371587 |
|  | Strongly disagree | Strongly agree | -. 12092684 | $\begin{array}{r} 2443352 \\ 0 \end{array}$ | . 996 | -. 8179307 | . 5760770 |
|  |  | Agree | -. 02420626 | $2454768$ | 1.000 | -. 7244668 | . 6760543 |
|  |  | Neutral | -. 19498435 | $2559772$ | . 974 | -. 9251990 | . 5352303 |
|  |  | Disagree | . 01711702 | .3033377 4 | 1.000 | -. 8482007 | . 8824347 |


|  | 99 | -. 72261715 | .5083519 3 | . 714 | -2.1727695 | . 7275352 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 99 | Strongly agree | . 60169030 | .4479475 1 | . 761 | -. 6761491 | 1.8795297 |
|  | Agree | . 69841088 | $\begin{array}{r} .4485712 \\ 5 \end{array}$ | . 627 | -. 5812078 | 1.9780296 |
|  | Neutral | . 52763280 | $\begin{array}{r} .4544025 \\ 2 \end{array}$ | . 855 | -. 7686205 | 1.8238861 |
|  | Disagree | . 73973416 | $\begin{array}{r} .4826707 \\ 6 \end{array}$ | . 643 | -. 6371587 | 2.1166270 |
|  | Strongly disagree | . 72261715 | .5083519 3 | . 714 | -. 7275352 | 2.1727695 |

*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| food interests |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Disagree | 30 | -.1628003 |  |
| Strongly agree | 1032 | -.0104271 |  |
| Agree | 654 | -.0086483 |  |
| Neutral | 147 | .0697004 |  |
| Strongly disagree | 17 | .3172207 | .3172207 |
| 99 | 5 |  | 1.1324146 |
| Sig. |  | .654 | .104 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=19.903$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 2 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| food interests | N | 1 |
| Disagree | 30 | -.3492159 |
| Neutral | 147 | -.1712443 |
| Agree | 654 | -.0829956 |
| Strongly disagree | 17 | -.0371372 |
| Strongly agree | 1032 | .0855200 |
| 99 | 5 | .4606264 |
| Sig. |  | .106 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=19.903$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 3 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| food interests | N | 1 |
| Disagree | 30 | -.2835730 |
| Neutral | 147 | -.2685374 |
| 99 | 5 | -.1458464 |
| Agree | 654 | -.1425608 |
| Strongly agree | 1032 | .1324750 |
| Strongly disagree | 17 | .3077643 |
| Sig. |  | .411 |

Means for groups in homogeneous subsets are
displayed.
a. Uses Harmonic Mean Sample Size $=19.903$.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| food interests | N | 1 |
| Disagree | 30 | -.2835730 |
| Neutral | 147 | -.2685374 |
| 99 | 5 | -1458464 |
| Agree | 654 | -.1425608 |
| Strongly agree | 1032 | .1324750 |
| Strongly disagree | 17 | .307643 |
| Sig. |  | .411 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=19.903$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 4 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> o |
| :--- | ---: | ---: |
| food interests | N | 1 |
| Disagree | 30 | -.1085704 |
| Strongly disagree | 17 | -.0914534 |
| Agree | 654 | -.0672471 |
| Strongly agree | 1032 | .0294734 |
| Neutral | 147 | .1035309 |
| 99 | 5 | .6311637 |
| Sig. |  | .180 |

Means for groups in homogeneous subsets are
displayed.
a. Uses Harmonic Mean Sample Size $=$ 19.903 .
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY foodeve /MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05).

## Oneway

[DataSet1] F:1301109.sav

## ANOVA

|  |  | Sum of Squares | df | Mean Square |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Between Groups | 5.271 | 5 | $1.054$ |
|  | Within Groups | 1878.729 | 1879 | $1.000$ |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 10.362 | 5 | $\begin{array}{r} \hline 2.072 \\ .997 \end{array}$ |
|  | Within Groups | 1873.638 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 35.458 | 5 | $\begin{array}{r} 7.092 \\ .984 \end{array}$ |
|  | Within Groups | 1848.542 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 9.309 | 5 | $\begin{array}{r} 1.862 \\ .998 \\ \hline \end{array}$ |
|  | Within Groups | 1874.691 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.054 | .384 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 2.078 | .065 |
| REGR factor score 3 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 7.208 | .000 |
| REGR factor score 4 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.866 | .097 |

## Post Hoc Tests

## Multiple Comparisons

Tukey HSD

| Dependent Variable | (I) visit food events | (J) visit food events | Mean Difference (I-J) | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | -. 02167533 | . 0580217 | . 999 | -. 1871912 | . 1438405 |
|  |  | Neutral | . 00837440 | $\begin{array}{r} .0654547 \\ 5 \end{array}$ | 1.000 | -. 1783454 | . 1950942 |
|  |  | Disagree | . 04520509 | $\begin{array}{r} .0811802 \\ 9 \end{array}$ | . 994 | -. 1863742 | . 2767844 |
|  |  | Strongly disagree | . 01524545 | $\begin{array}{r} .1478130 \\ 7 \end{array}$ | 1.000 | -. 4064142 | . 4369050 |
|  |  | 99 | $-.58997626$ | $\begin{array}{r} 2806485 \\ 0 \end{array}$ | . 286 | -1.3905694 | . 2106169 |
|  | Agree | Strongly agree | . 02167533 | $.0580217$ | . 999 | -. 1438405 | . 1871912 |
|  |  | Neutral | . 03004972 | $.0628305$ $1$ | . 997 | -. 1491840 | . 2092834 |
|  |  | Disagree | . 06688042 | $\begin{array}{r} .0790796 \\ 2 \end{array}$ | . 959 | -. 1587064 | . 2924673 |
|  |  | Strongly disagree | . 03692077 | $\begin{array}{r} .1466698 \\ 7 \end{array}$ | 1.000 | -. 3814777 | . 4553192 |
|  |  | 99 | -. 56830094 | $\begin{array}{r} .2800480 \\ 8 \end{array}$ | . 326 | -1.3671813 | . 2305795 |
|  | Neutral | Strongly agree | -. 00837440 | $\begin{array}{r} .0654547 \\ 5 \end{array}$ | 1.000 | -. 1950942 | . 1783454 |
|  |  | Agree | -. 03004972 | $.0628305$ $1$ | . 997 | -. 2092834 | . 1491840 |
|  |  | Disagree | . 03683069 | $\begin{array}{r} .0846840 \\ 8 \end{array}$ | . 998 | -. 2047437 | . 2784051 |
|  |  | Strongly disagree | . 00687105 | $.1497660$ | 1.000 | -. 4203596 | . 4341017 |
|  |  | 99 | -. 59835066 | $\begin{array}{r} .2816819 \\ 8 \end{array}$ | . 275 | -1.4018920 | . 2051907 |
|  | Disagree | Strongly agree | -. 04520509 | $\begin{array}{r} .0811802 \\ 9 \end{array}$ | . 994 | -. 2767844 | . 1863742 |
|  |  | Agree | -. 06688042 | $\begin{array}{r} .0790796 \\ 2 \end{array}$ | . 959 | -. 2924673 | . 1587064 |
|  |  | Neutral | -. 03683069 | $\begin{array}{r} .0846840 \\ 8 \end{array}$ | . 998 | -. 2784051 | . 2047437 |
|  |  | Strongly disagree | -. 02995964 | $\begin{array}{r} 1572761 \\ 0 \end{array}$ | 1.000 | -. 4786140 | . 4186947 |
|  |  | 99 | -. 63518136 | $\begin{array}{r} .2857457 \\ 8 \end{array}$ | . 228 | -1.4503153 | . 1799526 |
|  | Strongly disagree | Strongly agree | -. 01524545 | $\begin{array}{r} .1478130 \\ 7 \end{array}$ | 1.000 | -. 4369050 | . 4064142 |
|  |  | Agree | -. 03692077 | 1466698 7 | 1.000 | -. 4553192 | . 3814777 |


|  |  | Neutral Disagree 99 | -.00687105 <br> .02995964 <br> -.60522171 | $\begin{array}{r} .1497660 \\ 1 \\ .1572761 \\ 0 \\ .3113022 \\ 9 \end{array}$ | 1.000 1.000 .375 | -.4341017 -.4186947 -1.4932595 | .4203596 .4786140 .2828161 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 99 | Strongly agree | . 58997626 | $\begin{array}{r} \hline 2806485 \\ 0 \end{array}$ | . 286 | -. 2106169 | 1.3905694 |
|  |  | Agree | . 56830094 | $\begin{array}{r} 2800480 \\ 8 \end{array}$ | . 326 | -. 2305795 | 1.3671813 |
|  |  | Neutral | . 59835066 | $\begin{array}{r} 2816819 \\ 8 \end{array}$ | . 275 | -. 2051907 | 1.4018920 |
|  |  | Disagree | . 63518136 | $\begin{array}{r} 2857457 \\ 8 \end{array}$ | . 228 | -. 1799526 | 1.4503153 |
|  |  | Strongly disagree | . 60522171 | $\begin{array}{r} .3113022 \\ 9 \end{array}$ | . 375 | -. 2828161 | 1.4932595 |
| REGR factor score 2 for analysis 1 | Strongly agree | Agree | . 12264501 | $\begin{array}{r} \hline 0579430 \\ 4 \end{array}$ | . 279 | $-.0426465$ | . 2879365 |
|  |  | Neutral | . 15213618 | . 0653660 | . 183 | -. 0343304 | . 3386028 |
|  |  | Disagree | . 18842251 | $\begin{array}{r} .0810702 \\ 2 \end{array}$ | . 185 | -. 0428428 | . 4196878 |
|  |  | Strongly disagree | . 13444023 | $\begin{array}{r} 1476126 \\ 7 \end{array}$ | . 944 | -. 2866477 | . 5555281 |
|  |  | 99 | -. 27202917 | $\begin{array}{r} .2802680 \\ 0 \\ \hline \end{array}$ | . 927 | -1.0715369 | . 5274785 |
|  | Agree | Strongly agree | -. 12264501 | $\begin{array}{r} \hline 0579430 \\ 4 \end{array}$ | . 279 | -. 2879365 | . 0426465 |
|  |  | Neutral | . 02949118 | $\begin{array}{r} .0627453 \\ 2 \end{array}$ | . 997 | -. 1494995 | . 2084819 |
|  |  | Disagree | . 06577750 | $.0789724$ | . 961 | -. 1595035 | . 2910585 |
|  |  | Strongly disagree | . 01179522 | $\begin{array}{r} 1464710 \\ 2 \end{array}$ | 1.000 | -. 4060360 | . 4296264 |
|  |  | 99 | -. 39467418 | $\begin{array}{r} 2796683 \\ \hline \end{array}$ | . 720 | -1.1924714 | . 4031231 |
|  | Neutral | Strongly agree | -. 15213618 | $\begin{array}{r} .0653660 \\ 1 \end{array}$ | . 183 | -. 3386028 | . 0343304 |
|  |  | Agree | -. 02949118 | $0627453$ | . 997 | $-.2084819$ | . 1494995 |
|  |  | Disagree | . 03628632 | $\begin{array}{r} .0845692 \\ 6 \end{array}$ | . 998 | -. 2049606 | . 2775332 |
|  |  | Strongly disagree | -. 01769595 | $\begin{array}{r} 1495629 \\ 6 \end{array}$ | 1.000 | -. 4443474 | . 4089555 |
|  |  | 99 | -. 42416536 | $\begin{array}{r} .2813000 \\ 7 \end{array}$ | . 659 | -1.2266172 | . 3782865 |
|  | Disagree | Strongly agree | -. 18842251 | $\begin{array}{r} .0810702 \\ 2 \end{array}$ | . 185 | $-.4196878$ | . 0428428 |
|  |  | Agree | -. 06577750 | $.0789724$ | . 961 | -. 2910585 | . 1595035 |
|  |  | Neutral | -. 03628632 | $\begin{array}{r} .0845692 \\ 6 \end{array}$ | . 998 | -. 2775332 | . 2049606 |
|  |  | Strongly disagree | -. 05398228 | $\begin{array}{r} 1570628 \\ 7 \end{array}$ | . 999 | -. 5020284 | . 3940638 |
|  |  | 99 | -. 46045168 | $\begin{array}{r} 2853583 \\ 6 \end{array}$ | . 590 | -1.2744805 | . 3535771 |
|  | Strongly disagree | Strongly agree | -. 13444023 | $\begin{array}{r} \hline 1476126 \\ 7 \end{array}$ | . 944 | -. 5555281 | . 2866477 |
|  |  | Agree | -. 01179522 | $\begin{array}{r} 1464710 \\ 2 \end{array}$ | 1.000 | -. 4296264 | . 4060360 |
|  |  | Neutral | . 01769595 | $\begin{array}{r} 1495629 \\ \hline \end{array}$ | 1.000 | $-.4089555$ | . 4443474 |
|  |  | Disagree | . 05398228 | $\begin{array}{r} 1570628 \\ 7 \end{array}$ | . 999 | -. 3940638 | . 5020284 |
|  |  | 99 | -. 40646940 | $\begin{array}{r} .3108802 \\ 2 \end{array}$ | . 781 | -1.2933032 | . 4803644 |
|  | 99 | Strongly agree | . 27202917 | $\begin{array}{r} \hline 2802680 \\ 0 \end{array}$ | . 927 | -. 5274785 | 1.0715369 |
|  |  | Agree | . 39467418 | $\begin{array}{r} 2796683 \\ 9 \end{array}$ | . 720 | -. 4031231 | 1.1924714 |
|  |  | Neutral | . 42416536 |  <br> 813000 <br> 7 | . 659 | -. 3782865 | 1.2266172 |


|  |  | Disagree Strongly disagree | .46045168 .40646940 | $\begin{array}{r} .2853583 \\ 6 \\ .3108802 \\ 2 \end{array}$ | .590 .881 | -.3535771 <br> -.4803644 | 1.2744805 1.2933032 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REGR factor score 3 for analysis 1 | Strongly agree | Agree | . 27919358 | $\begin{array}{r} .0575536 \\ 7 \end{array}$ | . 000 | . 1150128 | . 4433743 |
|  |  | Neutral | . $28324065^{*}$ | .0649267 6 | . 000 | . 0980270 | . 4684543 |
|  |  | Disagree | . $37218355^{*}$ | $.0805254$ | . 000 | . 1424723 | . 6018948 |
|  |  | Strongly disagree | . 33067296 | $\begin{array}{r} .1466207 \\ 4 \end{array}$ | . 213 | -. 0875853 | . 7489312 |
|  |  | 99 | . 23085627 | $\begin{array}{r} .2783846 \\ 5 \end{array}$ | . 962 | -. 5632789 | 1.0249915 |
|  | Agree | Strongly agree | . $27919358^{*}$ | $\begin{array}{r} .0575536 \\ 7 \end{array}$ | . 000 | -. 4433743 | -. 1150128 |
|  |  | Neutral | . 00404707 | $\begin{array}{r} .0623236 \\ 9 \end{array}$ | 1.000 | -. 1737409 | . 1818350 |
|  |  | Disagree | . 09298997 | $\begin{array}{r} 0784417 \\ 3 \end{array}$ | . 844 | -. 1307772 | . 3167571 |
|  |  | Strongly disagree | . 05147938 | $\begin{array}{r} .1454867 \\ 6 \end{array}$ | . 999 | -. 3635441 | . 4665028 |
|  |  | 99 | -. 04833731 | $\begin{array}{r} .2777890 \\ 8 \end{array}$ | 1.000 | -. 8407735 | . 7440989 |
|  | Neutral | Strongly agree | . $28324065^{\circ}$ | $\begin{array}{r} .0649267 \\ 6 \end{array}$ | . 000 | $-.4684543$ | -. 0980270 |
|  |  | Agree | -. 00404707 | .0623236 9 | 1.000 | -. 1818350 | . 1737409 |
|  |  | Disagree | . 08894290 | $0840009 .$ | . 898 | -. 1506829 | . 3285687 |
|  |  | 99 | -. 05238438 | $\begin{array}{r} 2794097 \\ 9 \end{array}$ | 1.000 | -. 8494439 | . 7446752 |
|  | Disagree | Strongly agree |  | . 0805254 | . 000 | -. 6018948 | -. 1424723 |
|  |  | Agree | $\begin{array}{r} .37218355 \\ -.09298997 \end{array}$ | . 0784417 | . 844 | -. 3167571 | . 1307772 |
|  |  | Neutral | -. 08894290 | $\begin{array}{r} 3 \\ .0840009 \\ 8 \end{array}$ | . 898 | -. 3285687 | . 1506829 |
|  |  | Strongly disagree | -. 04151059 | 1560074 4 | 1.000 | -. 4865459 | . 4035247 |
|  |  | 99 | -. 14132728 | $\begin{array}{r} .2834408 \\ 1 \end{array}$ | . 996 | -. 9498859 | . 6672314 |
|  | Strongly disagree | Strongly agree | -. 33067296 | $\text { . } 1466207$ | 213 | -. 7489312 | . 0875853 |
|  |  | Agree | -. 05147938 | $\begin{array}{r} 1454867 \\ 6 \end{array}$ | . 999 | -. 4665028 | . 3635441 |
|  |  | Neutral | -. 04743231 | . 1485579 | 1.000 | -. 4712167 | . 3763521 |
|  |  | Disagree | . 04151059 | . 1560074 | 1.000 | -. 4035247 | . 4865459 |
|  |  | 99 | -. 09981669 | $\begin{array}{r} 4 \\ .3087911 \\ 7 \end{array}$ | 1.000 | -. 9806912 | . 7810578 |
|  | 99 | Strongly agree | -. 23085627 | $\begin{array}{r} \hline 2783846 \\ 5 \end{array}$ | 962 | -1.0249915 | . 5632789 |
|  |  | Agree | . 04833731 | $\text { . } 2777890$ | 1.000 | -. 7440989 | . 8407735 |
|  |  | Neutral | . 05238438 | . 2794097 | 1.000 | $-.7446752$ | 8494439 |
|  |  | Disagree | . 14132728 | $2834408$ | . 996 | -. 6672314 | . 9498859 |
| REGR factor score 4 for analysis 1 | Strongly agree | Agree | . 11344668 | . 0579593 | . 368 | -. 0518912 | . 2787846 |
|  |  | Neutral | -. 04932929 | . 0653843 | . 975 | -. 2358483 | . 1371897 |
|  |  | Disagree | -. 03640538 | $.0810929$ | . 998 | -. 2677357 | . 1949249 |
|  |  | Strongly disagree | . 05109224 | . 1476541 2 | . 999 | -. 3701139 | . 4722984 |
|  |  | 99 | -. 20839480 | .2803467 1 | . 976 | -1.0081271 | . 5913375 |


*. The mean difference is significant at the 0.05 level.

## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| visit food events |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Disagree | 211 | -.0495727 |  |
| Strongly disagree | 50 | -.0196131 |  |
| Neutral | 411 | -.0127420 |  |
| Strongly agree | 540 | -.0043676 |  |
| Agree | 660 | .0173077 |  |
| 99 | 13 |  | .5856086 |
| Sig. |  | .999 | 1.000 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=55.833$.

REGR factor score $\mathbf{1}$ for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| visit food events |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Disagree | 211 | -.0495727 |  |
| Strongly disagree | 50 | -.0196131 |  |
| Neutral | 411 | -.0127420 |  |
| Strongly agree | 540 | -.0043676 |  |
| Agree | 660 | .0173077 |  |
| 99 | 13 |  | .5856086 |
| Sig. |  | .999 | 1.000 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=55.833$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

## REGR factor score 2 for analysis 1

Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| visit food events | N | 1 |
| Disagree | 211 | -.0895278 |
| Neutral | 411 | -.0532415 |
| Strongly disagree | 50 | -.0355456 |
| Agree | 660 | -.0237503 |
| Strongly agree | 540 | .0988947 |
| 99 | 13 | .3709238 |
| Sig. |  | .144 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=55.833$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| visit food events | N | 1 |
| Disagree | 211 | -.1606476 |
| Strongly disagree | 50 | -.1191371 |
| Neutral | 411 | -.0717047 |
| Agree | 660 | -.0676577 |
| 99 | 13 | -.0193204 |
| Strongly agree | 540 | .2115359 |
| Sig. |  | .353 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=55.833$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | ---: |
| visit food events | N | 1 |
| Agree | 660 | -.0886380 |
| Strongly disagree | 50 | -.0262835 |
| Strongly agree | 540 | .0248087 |
| Disagree | 211 | .0612141 |
| Neutral | 411 | .0741380 |
| 99 | 13 | .2332035 |
| Sig. |  | .530 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=55.833$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ONEWAY FAC1_1 FAC2_1 FAC3_1 FAC4_1 BY artexp
/MISSING ANALYSIS
/POSTHOC=TUKEY ALPHA(0.05)
Oneway
[DataSet1] F:1301109.sav
ANOVA

|  |  | Sum of Squares | df | Mean Square |
| :---: | :---: | :---: | :---: | :---: |
| REGR factor score 1 for analysis 1 | Between Groups | 8.968 | 5 | $\begin{array}{r} 1.794 \\ .998 \end{array}$ |
|  | Within Groups | 1875.032 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 2 for analysis 1 | Between Groups | 25.080 | 5 | $\begin{array}{r} 5.016 \\ .989 \end{array}$ |
|  | Within Groups | 1858.920 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 3 for analysis 1 | Between Groups | 21.978 | 5 | $\begin{array}{r} 4.396 \\ .991 \end{array}$ |
|  | Within Groups | 1862.022 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |
| REGR factor score 4 for analysis 1 | Between Groups | 18.703 | 5 | $\begin{array}{r} \hline 3.741 \\ .993 \end{array}$ |
|  | Within Groups | 1865.297 | 1879 |  |
|  | Total | 1884.000 | 1884 |  |

ANOVA

|  |  | F | Sig. |
| :--- | :--- | ---: | ---: |
| REGR factor score 1 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 1.797 | .110 |
| REGR factor score 2 for <br> analysis 1 | Between Groups <br> Within Groups <br> Total | 5.070 | .000 |
| REGR factor score <br> analysis 1 for | Between Groups <br> Within Groups <br> Total | 4.436 | .001 |
| REGR factor score <br> analysis 1 for | Between Groups <br> Within Groups <br> Total | 3.768 | .002 |

## Post Hoc Tests

Multiple Comparisons
Tukey HSD

| Dependent Variable | (I) artistic experiences | (J) artistic experiences | MeanDifference$(I-J)$ | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Lower Bound | Upper <br> Bound |
| REGR factor score 1 for analysis 1 | Strongly agree | Agree | . 04371882 | $\begin{array}{r} .0587119 \\ 6 \end{array}$ | . 976 | -. 1237661 | . 2112037 |
|  |  | Neutral | -. 03896741 | $\begin{array}{r} .0650150 \\ 7 \end{array}$ | . 991 | -. 2244329 | . 1464981 |
|  |  | Disagree | . 09519234 | $\begin{array}{r} .1086182 \\ 6 \end{array}$ | . 952 | -. 2146580 | . 4050427 |
|  |  | Strongly disagree | -. 19570313 | $\begin{array}{r} 2282482 \\ 6 \end{array}$ | . 956 | $-.8468165$ | . 4554103 |
|  |  | 99 | -. 62495784 | $\begin{array}{r} .2810044 \\ 4 \\ \hline \end{array}$ | . 227 | -1.4265664 | . 1766507 |
|  | Agree | Strongly agree | -. 04371882 | $\begin{array}{r} .0587119 \\ 6 \end{array}$ | . 976 | -. 2112037 | . 1237661 |
|  |  | Neutral | -. 08268623 | .0571696 1 | . 699 | -. 2457714 | . 0803989 |
|  |  | Disagree | . 05147352 | .1041121 1 | . 996 | -. 2455223 | . 3484694 |
|  |  | Strongly disagree | -. 23942195 | $\begin{array}{r} .2261386 \\ 2 \end{array}$ | . 898 | $-.8845173$ | . 4056734 |
|  |  | 99 | -. 66867666 | .2792935 8 | . 159 | -1.4654047 | . 1280514 |
|  | Neutral | Strongly agree | . 03896741 | $\begin{array}{r} .0650150 \\ 7 \end{array}$ | . 991 | -. 1464981 | . 2244329 |
|  |  | Agree | . 08268623 | .0571696 1 | . 699 | -. 0803989 | . 2457714 |


|  |  | Disagree Strongly disagree 99 | .13415974 -.15673573 -.58599043 | $\begin{array}{r} .1077923 \\ 7 \\ .2278564 \\ 0 \\ .2806862 \\ 4 \\ \hline \end{array}$ | .815 .983 .294 | -.1733346 -.8067313 -1.3866913 | .4416541 .4932598 .2147104 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Disagree | Strongly agree | -. 09519234 | $\begin{array}{r} .1086182 \\ 6 \end{array}$ | . 952 | -. 4050427 | . 2146580 |
|  |  | Agree | -. 05147352 | $.1041121$ | . 996 | -. 3484694 | . 2455223 |
|  |  | Neutral | -. 13415974 | $\begin{array}{r} .1077923 \\ 7 \end{array}$ | . 815 | -. 4416541 | . 1733346 |
|  |  | Strongly disagree | -. 29089547 | $\begin{array}{r} .2439047 \\ 0 \end{array}$ | . 841 | -. 9866713 | . 4048804 |
|  |  | 99 | -. 72015017 | $\begin{array}{r} .2938634 \\ 6 \end{array}$ | . 140 | $-1.5584411$ | . 1181407 |
|  | Strongly disagree | Strongly agree | . 19570313 | $\begin{array}{r} .2282482 \\ 6 \end{array}$ | . 956 | -. 4554103 | . 8468165 |
|  |  | Agree | . 23942195 | $\begin{array}{r} .2261386 \\ 2 \end{array}$ | . 898 | -. 4056734 | . 8845173 |
|  |  | Neutral | . 15673573 | $\begin{array}{r} .2278564 \\ 0 \end{array}$ | . 983 | -. 4932598 | . 8067313 |
|  |  | Disagree | . 29089547 | $\begin{array}{r} .2439047 \\ 0 \end{array}$ | . 841 | -. 4048804 | . 9866713 |
|  |  | 99 | -. 42925471 | $\begin{array}{r} .3558863 \\ 2 \end{array}$ | . 834 | -1.4444754 | . 5859660 |
|  | 99 | Strongly agree | . 62495784 | $\begin{array}{r} 2810044 \\ 4 \end{array}$ | . 227 | -. 1766507 | 1.4265664 |
|  |  | Agree | . 66867666 | $\begin{array}{r} 2792935 \\ 8 \end{array}$ | . 159 | -. 1280514 | 1.4654047 |
|  |  | Neutral | . 58599043 | $\begin{array}{r} .2806862 \\ 4 \end{array}$ | . 294 | -. 2147104 | 1.3866913 |
|  |  | Disagree | . 72015017 | $\begin{array}{r} .2938634 \\ 6 \end{array}$ | . 140 | -. 1181407 | 1.5584411 |
|  |  | Strongly disagree | . 42925471 | $\begin{array}{r} .3558863 \\ 2 \end{array}$ | . 834 | -. 5859660 | 1.4444754 |
| REGR factor score 2 for analysis 1 | Strongly agree | Agree | . 06322545 | $\begin{array}{r} .0584591 \\ 6 \end{array}$ | . 889 | -. 1035383 | . 2299892 |
|  |  | Neutral | . $2105795{ }^{*}$ | $\begin{array}{r} .0647351 \\ 3 \end{array}$ | . 015 | . 0259126 | . 3952465 |
|  |  | Disagree | . 29083496 | $\begin{array}{r} .1081505 \\ 8 \end{array}$ | . 078 | -. 0176813 | . 5993512 |
|  |  | Strongly disagree | . $78863921^{*}$ | $\begin{array}{r} .2272654 \\ 9 \end{array}$ | . 007 | . 1403293 | 1.4369491 |
|  |  | 99 | -. 03471377 | $\begin{array}{r} .2797945 \\ 2 \end{array}$ | 1.000 | -. 8328708 | . 7634433 |
|  | Agree | Strongly agree | -. 06322545 | $\begin{array}{r} \hline .0584591 \\ 6 \end{array}$ | . 889 | -. 2299892 | . 1035383 |
|  |  | Neutral | . 14735408 | $\begin{array}{r} .0569234 \\ 6 \end{array}$ | . 100 | -. 0150289 | . 3097370 |
|  |  | Disagree | . 22760951 | $\begin{array}{r} .1036638 \\ 3 \end{array}$ | . 240 | -. 0681076 | . 5233266 |
|  |  | Strongly disagree | . $72541377^{*}$ | $\begin{array}{r} .2251649 \\ 3 \end{array}$ | . 016 | . 0830961 | 1.3677315 |
|  |  | 99 | -. 09793922 | $\begin{array}{r} .2780910 \\ 2 \end{array}$ | . 999 | -. 8912368 | . 6953583 |
|  | Neutral | Strongly agree | . $21057952^{\text {- }}$ | .0647351 3 | . 015 | -. 3952465 | -. 0259126 |
|  |  | Agree | -. 14735408 | $\begin{array}{r} .0569234 \\ 6 \end{array}$ | . 100 | -. 3097370 | . 0150289 |
|  |  | Disagree | . 08025544 | $\begin{array}{r} .1073282 \\ 5 \end{array}$ | . 976 | -. 2259150 | . 3864258 |
|  |  | Strongly disagree | . 57805969 | $\begin{array}{r} .2268753 \\ 1 \end{array}$ | . 111 | -. 0691372 | 1.2252565 |
|  |  | 99 | $-.24529330$ | $\begin{array}{r} .2794776 \\ 9 \\ \hline \end{array}$ | . 952 | -1.0425465 | . 5519599 |
|  | Disagree | Strongly agree | -. 29083496 | $\begin{array}{r} \hline .1081505 \\ 8 \end{array}$ | . 078 | -. 5993512 | . 0176813 |
|  |  | Agree | $-.22760951$ | .1036638 3 | . 240 | -. 5233266 | . 0681076 |
|  |  | Neutral | -. 08025544 | . 1073282 | . 976 | -. 3864258 | . 2259150 |


|  |  | Strongly disagree 99 | .49780425 -.32554873 | $\begin{array}{r} 2428545 \\ 2 \\ 2925981 \\ 7 \end{array}$ | .315 .876 | -.1949758 -1.1602302 | 1.1905843 .5091327 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Strongly disagree | Strongly agree | .78863921 ${ }^{\text { }}$ | $\begin{array}{r} \hline 2272654 \\ \hline 9 \end{array}$ | . 007 | -1.4369491 | -. 1403293 |
|  |  | Agree | . $72541377^{*}$ | 2251649 3 | . 016 | -1.3677315 | -. 0830961 |
|  |  | Neutral | -. 57805969 | $2268753$ | . 111 | -1.2252565 | . 0691372 |
|  |  | Disagree | -. 49780425 | $2428545$ | . 315 | -1.1905843 | . 1949758 |
|  |  | 99 | -. 82335299 | $\begin{array}{r} 3543539 \\ 8 \end{array}$ | . 185 | -1.8342024 | . 1874964 |
|  | 99 | Strongly agree | . 03471377 | $\begin{array}{r} .2797945 \\ 2 \end{array}$ | 1.000 | -. 7634433 | . 8328708 |
|  |  | Agree | . 09793922 | . 2780910 | . 999 | -. 6953583 | . 8912368 |
|  |  | Neutral | . 24529330 | 2794776 9 | . 952 | -. 5519599 | 1.0425465 |
|  |  | Disagree | . 32554873 | $\text { . } 2925981$ | . 876 | -. 5091327 | 1.1602302 |
|  |  | Strongly disagree | . 82335299 | $\begin{array}{r} .3543539 \\ 8 \end{array}$ | . 185 | -. 1874964 | 1.8342024 |
| REGR factor score3 for analysis 1 3 for analysis 1 | Strongly agree | Agree | . 17301142 | $\begin{array}{r} \hline .0585079 \\ 1 \end{array}$ | . 037 | . 0061086 | . 3399143 |
|  |  | Neutral | . $26103046^{\circ}$ | . 0647891 | . 001 | . 0762095 | . 4458514 |
|  |  | Disagree | . $35800418^{*}$ | $1082407$ | . 012 | . 0492307 | . 6667777 |
|  |  | Strongly disagree | . 23321213 | . 2274550 | . 910 | -. 4156384 | . 8820627 |
|  |  | 99 | . 45447722 | 2800278 5 | . 583 | -. 3443454 | 1.2532999 |
|  | Agree | Strongly agree | . $17301142^{*}$ | $\begin{array}{r} \hline .0585079 \\ 1 \end{array}$ | . 037 | -. 3399143 | -. 0061086 |
|  |  | Neutral | . 08801904 | .0569709 <br> 3 | . 635 | -. 0744993 | . 2505374 |
|  |  | Disagree | . 18499276 | \|rre37502. | . 477 | -. 1109709 | . 4809565 |
|  |  | Strongly disagree | . 06020071 | $\text { . } 2253527$ | 1.000 | $-.5826527$ | . 7030541 |
|  |  | 99 | . 28146580 | 2783229 3 | . 914 | -. 5124933 | 1.0754249 |
|  | Neutral | Strongly agree | . $26103046 *$ | .0647891 <br> 1 | . 001 | -. 4458514 | -. 0762095 |
|  |  | Agree | -. 08801904 | .0569709 <br> 3 | . 635 | -. 2505374 | . 0744993 |
|  |  | Disagree | . 09697372 | $1074177$ | . 946 | -. 2094520 | . 4033994 |
|  |  | Strongly disagree | -. 02781833 | . 2270645 | 1.000 | -. 6755549 | . 6199182 |
|  |  | 99 | . 19344675 | $\begin{array}{r} 2797107 \\ 5 \end{array}$ | . 983 | $-.6044713$ | . 9913649 |
|  | Disagree | Strongly agree | . $35800418^{*}$ | $.1082407$ | . 012 | $-.6667777$ | $-.0492307$ |
|  |  | Agree | -. 18499276 | 1037502 <br> 8 | . 477 | $-.4809565$ | . 1109709 |
|  |  | Neutral | -. 09697372 | $\begin{array}{r} .1074177 \\ 6 \end{array}$ | . 946 | -. 4033994 | . 2094520 |
|  |  | Strongly disagree | -. 12479205 | $\begin{array}{r}2430570 \\ 4 \\ \hline\end{array}$ | . 996 | -. 8181498 | . 5685657 |
|  |  | 99 | . 09647304 | .2928421 7 | . 999 | $-.7389045$ | . 9318505 |
|  | Strongly disagree | Strongly agree | -. 23321213 | . 2274550 | . 910 | -. 8820627 | . 4156384 |
|  |  | Agree | -. 06020071 | . 2253527 | 1.000 | $-.7030541$ | . 5826527 |
|  |  | Neutral | . 02781833 | . 2270645 | 1.000 | -. 6199182 | . 6755549 |
|  |  | Disagree | . 12479205 | . 2430570 | . 996 | $-.5685657$ | . 8181498 |
|  |  | 99 | . 22126509 | .3546494 <br> 9 | . 989 | $-.7904273$ | 1.2329575 |


|  | 99 | Strongly agree | -. 45447722 | $\begin{array}{r} .2800278 \\ 5 \end{array}$ | . 583 | -1.2532999 | . 3443454 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Agree | $-.28146580$ | 2783229 3 | . 914 | -1.0754249 | . 5124933 |
|  |  | Neutral | $-.19344675$ | $\begin{array}{r} 2797107 \\ 5 \end{array}$ | . 983 | -. 9913649 | . 6044713 |
|  |  | Disagree | $-.09647304$ | $\begin{array}{r} .2928421 \\ 7 \end{array}$ | . 999 | -. 9318505 | . 7389045 |
|  |  | Strongly disagree | $-.22126509$ | $\begin{array}{r} .3546494 \\ 9 \end{array}$ | . 989 | -1.2329575 | . 7904273 |
| REGR factor score 4 for analysis 1 | Strongly agree | Agree | . 20826511 | $.0585593$ | . 005 | . 0412155 | . 3753147 |
|  |  | Neutral | . 13630247 | $\begin{array}{r} .0648460 \\ 6 \end{array}$ | . 287 | -. 0486809 | . 3212859 |
|  |  | Disagree | . 23183772 | $.1083359$ | . 267 | -. 0772072 | . 5408826 |
|  |  | Strongly disagree | . 33162497 | $\begin{array}{r} 2276549 \\ 4 \end{array}$ | . 692 | -. 3177959 | . 9810458 |
|  |  | 99 | -. 44706909 | $\begin{array}{r} .2802739 \\ 8 \end{array}$ | . 602 | -1.2465939 | . 3524557 |
|  | Agree | Strongly agree | . $20826511^{\text {* }}$ | $\begin{array}{r} .0585593 \\ 4 \end{array}$ | . 005 | -. 3753147 | -. 0412155 |
|  |  | Neutral | -. 07196264 | $\begin{array}{r} .0570210 \\ 0 \end{array}$ | . 806 | -. 2346238 | . 0906986 |
|  |  | Disagree | . 02357262 | $.1038414$ | 1.000 | -. 2726512 | . 3197965 |
|  |  | Strongly disagree | . 12335986 | $\begin{array}{r} .2255507 \\ 8 \end{array}$ | . 994 | -. 5200586 | . 7667783 |
|  |  | 99 | -. 65533419 | $\begin{array}{r} .2785675 \\ 6 \\ \hline \end{array}$ | . 174 | -1.4499912 | . 1393228 |
|  | Neutral | Strongly agree | -. 13630247 | $\begin{array}{r} .0648460 \\ 6 \end{array}$ | . 287 | -. 3212859 | . 0486809 |
|  |  | Agree | . 07196264 | $\begin{array}{r} .0570210 \\ 0 \end{array}$ | . 806 | -. 0906986 | . 2346238 |
|  |  | Disagree | . 09553526 | $\begin{array}{r} .1075121 \\ 7 \end{array}$ | . 949 | -. 2111598 | . 4022303 |
|  |  | Strongly disagree | . 19532250 | $\begin{array}{r} .2272640 \\ 9 \end{array}$ | . 956 | -. 4529834 | . 8436284 |
|  |  | 99 | $-.58337156$ | $\begin{array}{r} .2799566 \\ 1 \end{array}$ | . 296 | $-1.3819910$ | . 2152479 |
|  | Disagree | Strongly agree | $-.23183772$ | $.1083359$ | . 267 | -. 5408826 | . 0772072 |
|  |  | Agree | -. 02357262 | $\begin{array}{r} .1038414 \\ 7 \end{array}$ | 1.000 | -. 3197965 | . 2726512 |
|  |  | Neutral | -. 09553526 | $\begin{array}{r} .1075121 \\ 7 \end{array}$ | . 949 | -. 4022303 | . 2111598 |
|  |  | Strongly disagree | . 09978724 | $\begin{array}{r} .2432706 \\ 8 \end{array}$ | . 999 | -. 5941799 | . 7937544 |
|  |  | 99 | $-.67890681$ | $\begin{array}{r} .2930995 \\ 7 \end{array}$ | . 188 | $-1.5150186$ | . 1572050 |
|  | Strongly disagree | Strongly agree | -. 33162497 | $\begin{array}{r} .2276549 \\ 4 \end{array}$ | . 692 | -. 9810458 | . 3177959 |
|  |  | Agree | $-.12335986$ | $\begin{array}{r} .2255507 \\ 8 \end{array}$ | . 994 | -. 7667783 | . 5200586 |
|  |  | Neutral | $-.19532250$ | $\begin{array}{r} .2272640 \\ 9 \end{array}$ | . 956 | -. 8436284 | . 4529834 |
|  |  | Disagree | $-.09978724$ | $\begin{array}{r} .2432706 \\ 8 \end{array}$ | . 999 | -. 7937544 | . 5941799 |
|  |  | 99 | $-.77869405$ | $.3549612$ | . 241 | -1.7912757 | . 2338876 |
|  | 99 | Strongly agree | . 44706909 | $\begin{array}{r} .2802739 \\ 8 \end{array}$ | . 602 | -. 3524557 | 1.2465939 |
|  |  | Agree | . 65533419 | $\begin{array}{r} .2785675 \\ 6 \end{array}$ | . 174 | -. 1393228 | 1.4499912 |
|  |  | Neutral | . 58337156 | $\begin{array}{r} .2799566 \\ 1 \end{array}$ | . 296 | -. 2152479 | 1.3819910 |
|  |  | Disagree | . 67890681 | $\begin{array}{r} 2930995 \\ \hline \end{array}$ | . 188 | -. 1572050 | 1.5150186 |
|  |  | Strongly disagree | . 77869405 | $.3549612$ | . 241 | -. 2338876 | 1.7912757 |

[^8]
## Homogeneous Subsets

REGR factor score 1 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| artistic experiences |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Disagree | 104 | -.0879175 |  |
| Agree | 802 | -.0364440 |  |
| Strongly agree | 453 | .0072748 |  |
| Neutral | 493 | .0462422 | .0462422 |
| Strongly disagree | 20 | .2029780 | .2029780 |
| 99 | 13 |  | .6322327 |
| Sig. |  | .764 | .076 |

Means for groups in homogeneous subsets are displayed
a. Uses Harmonic Mean Sample Size $=42.247$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 2 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
| artistic experiences | N | 1 |  |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=42.247$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 3 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

|  |  | Subset for alpha <br> $=0.05$ |
| :--- | ---: | :---: |
| artistic experiences | N | 1 |
| 99 | 13 | -.2872369 |
| Disagree | 104 | -.1907638 |
| Neutral | 493 | -.0937901 |
| Strongly disagree | 20 | -.0659718 |
| Agree | 802 | -.0057711 |
| Strongly agree | 453 | .1672403 |
| Sig. |  | .289 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=42.247$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

REGR factor score 4 for analysis 1
Tukey HSD ${ }^{\text {a,b }}$

| artistic experiences |  | Subset for alpha $=0.05$ |  |
| :--- | ---: | ---: | ---: |
|  | N | 1 | 2 |
| Strongly disagree | 20 | -.1941409 |  |
| Disagree | 104 | -.0943537 |  |
| Agree | 802 | -.0707810 |  |
| Neutral | 493 | .0011816 | .0011816 |
| Strongly agree | 453 | .1374841 | .1374841 |
| 99 | 13 |  | .5845531 |
| Sig. |  | .645 | .077 |

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size $=42.247$.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.


[^0]:    ${ }^{1}$ The word customer(s) "a person who purchases a commodity or service" (Allen, 2002) has been used throughout the thesis instead of the word 'consumer(s)' to maintain consistency. However, the word 'consumer(s)' has been maintained in quotations and when discussing established theories.
    2 "Expectations are viewed as predictors made by consumers about what is likely to happen during an impending transaction or exchange" (Parasuraman, Zeithaml and Berry, 1988:17),
    ${ }^{3}$ The word 'restaurant' is used along with 'dining out establishment' throughout the text as they are interchangeable. Although, 'restaurant' may have a stereotypical image, in fact, the word restaurant refers to any establishment which prepares and serves food and drink for consumption on the premises by customers in return for money (Allen, 2002).

[^1]:    ${ }^{4}$ The term 'paradigm' is a term popular within social science research due to the work of Kuhn who used the word to describe the progress of scientific practices in progress (Easterby-Smith, Thorpe and Lowe 2002: 29)

[^2]:    ${ }^{5}$ Comte invented the science of society with the aim of this science being conducted on a 'positive' basis and viewed by biological laws and investigated empirically (Oldroyd, 1986 in Choen et al, 2003).

[^3]:    ${ }^{6}$ The Perseus programme develops and deploys sophisticated web-based surveys that are centrally managed, delivering results in real time. The programme manages the process from questionnaire design through to results presentation, enabling control over the survey process and ensuring a specific design.

[^4]:    7 'Inexpensive', 'mid-priced' and 'expensive' variables relate to expectations associated with dining out. The variables stay the same across the cost categories of restaurants, what changes are the customers' perspectives of the variables when considering different dining out costs.

[^5]:    If you would prefer not to receive emails from delicious. magazine, CLICK HERE to unsubscribe. This email is from delicious. magazine, part of Seven Publishing Group Ltd. You have been sent this email because you signed up to receive the delicious. e-newsletter and other communications which may be of interest to you.

[^6]:    **. Correlation is significant at the 0.01 level (2-tailed).

[^7]:    *. The mean difference is significant at the 0.05 level.

[^8]:    *. The mean difference is significant at the 0.05 level.

