UNIVERSITY OF CUKUROVA
INSTITUTE OF SOCIAL SCIENCES
MANAGEMENT DEPARTMENT

PH.D. DISSERTATION

TIME AS AN ISSUE IN FOOD SHOPPING AND MEAL PREPARATION

PREPARED BY : CANAN MADRAN

SUPERVISOR : PROF.DR. MUSTAFA MAZLUM

ADANA, 1996

PREFACE

This thesis has been realised both in Turkey and in England. The subject area itself and the multinational characteristic of the thesis made it very enjoyable for me to work on this particular topic. I would like to thank to my supervisor **Prof.Dr. Mustafa Mazlum** for encouraging and supporting me to work on this specific subject.

I would like to offer my very special thanks to **Prof. Gary Davies** for his never-ending support and help for the realisation of the research and my appreciation to his way of encouraging and supervising his research students in Manchester Business School, UK. I want to thank to my friend and senior colleague **Mr. Omer Omer and his family** for their co-operation, genuine support whenever I need and sincere friendship during my study in Manchester. Without them, it might not be easy to finish. I would like to thank to my colleague **Mr. Paitoon Chetthamrongchai** for his joyful and helpful co-operation in the research process. I also would like to thank to **Prof.Dr. Yüksel Bek** for his precious help during the evaluation of the statistical methodology of the thesis.

This piece of work is the result of the sacrifice, full support and dedicated belief of my husband **Devrim Madran**, my son **Kerem** , my mother **Mehpare Bayirdar** and my brother **Serdar Bayirdar**. I want to present my very special thanks and love to all of them.

Canan Madran **Adana, December, 1996**

TABLE OF CONTENTS

Page

Page

ABSTRACT

TIME AS AN ISSUE IN FOOD SHOPPING AND MEAL PREPARATION

PREPARED BY CANAN MADRAN

SUPERVISOR Prof. Dr. MUSTAFA MAZLUM

Within this study, " Time as an Issue in Food Shopping and Meal Preparation" will be discussed. The study begins by providing introductory information about " time" and " various research done on time". This section offers a general overview of the literature related to "time".

A significant amount of variance in food shopping goals and behaviours remains unexplained. Shopping goals and behaviours are related with patterns of family influence, decision making, and task assumption, or sharing, and therefore can be explained only by a detailed investigation of family structure and behaviour as it relates to meal preparation and food shopping. This research will determine, whether time-pressured consumers (e.g. employed women) do many things the same way their mothers did or whether they are highly organised in their approach to a variety of household tasks.

From the literature review, brief information about time, time orientation, time attitude of consumer, time-styles and life-styles has been obtained, in order to clarify the terms that will be used in the whole study. The main purpose of the literature review is to provide a discussion on the relationship between "time orientation",

"time perception" and the food purchase and use behaviour of consumers. "Time" will be examined as both duration and succession based in case of food purchase and meal preparation behaviour of consumers. Food purchase and meal preparation of households will be examined in detail by using the massive literature about contemporary home economics research, mainly concentrated on the increasing participation of women in the labour force. In short, this research will try to clarify the dimensions of the relation between *time perception*, *time orientation*, *food purchase and meal preparation behaviour* of consumers.

One of the significant results, which has been found is that traditional role orientation is one of the strongest attitude in Food Shopping (FS) & Meal Preparation (MP). According to Dorian and Tucci (1992) traditional oriented consumers, even though they are time-pressured, do not generally prefer convenience food. They state that in attempting to adhere to their traditionally prescribed roles, women especially try to accomplish house-wife tasks with minimal reliance on convenience goods and for these women the use of such food would indicate a lack of ability to manage her set of roles effectively. This explanation is supported by the findings of this research.

In the research reported here attitudes to time are argued to have five different components, the relative domination of duration and succession as two different concepts of time, and the three factors of time orientation, past, present, and future. Three different aspects of attitude towards food shopping and preparation are investigated, an enjoyment of cooking, and a traditional orientation and a modern (role sharing) attitude to the linked activities. The results of a questionnaire survey are presented , the analysis of which confirms some of the hypothesised linkages

between attitudes to time and attitudes to food shopping and preparation. Past orientation correlates with traditional views on food shopping and preparation but modern views on the activities do not correlate with having a duration perspective of time. Holding traditional views does correlate with seeing time as succession (a series of events).Those with a duration perspective do not enjoy cooking while those with a past orientation do.

Cluster analysis using the 8 different factors identified two different groups, typified by their past and present orientations and each of the three attitudes to food shopping and meal preparation. No differences between the groups existed on demographic variables such as age, gender, whether the respondent had paid work and housing type (which is accepted as a representative geodemographic variable in England). No differences existed in their ownership of time saving consumer durables. One group clearly saw mealtimes as significant activities and they enjoyed cooking.

A substantial group in society do still see food shopping and meal preparation as important activities. While such individuals may be subject to modern-day pressures they still appear to organise their time to maintain a traditional perspective. The implications for food retailers and other marketers are considered.

LIST OF TABLES

LIST OF FIGURES

1. Introduction

Within this study, " Time as an Issue in Food Shopping and Meal Preparation" will be discussed. The study begins by providing introductory information about " time" and " various research done on time". This section offers an overview of the literature related to "Time".

Fram and Axelroad (1990) provide a very obvious explanation of the need to research time; "Businesses that ignore the growing importance of time to consumers may find themselves with more time and fewer customers" (p.45). This research, attempted to find if there was a correlation between time orientation and time perception of consumers and their food shopping / meal preparation attitudes. The initial proposition in this research is that there is a significant relation between consumer's time orientation, time perception, and food purchase-meal preparation attitudes.

A significant amount of variance in food shopping goals and behaviour remains unexplained. Shopping goals and behaviours are related to patterns of family influence, decision making, and task assumption, or sharing, and therefore can be explained only by a detailed investigation of family structure and behaviour as it relates to meal preparation and food shopping. This research, will determine, whether time-pressured consumers (e.g. employed women) do many things the same way their mothers did or whether they are highly organised in their approach to a variety of household tasks.

In particular unexpected changes present particular problems in executing food marketing strategies. These kinds of change stem from four main areas of the food market environment ;

1. Consumer change,
2. Retailer concentration,
3. Own-label growth,
4. Competition.

The first area is the consumer and her/his behaviour towards buying and consuming food. Some recent trends are as follows in that particular area (Summers, 1987, p.28);

- the diminishing size of households and the increasing number of one person households,
- the ageing of the population,
- the increase in working housewives, and the reduction in time available to prepare meals,
- the disappearance of formal meal occasions, and the increasing frequency of fast food consumption,
- the concerns about health and the consumer lobby's pressure against additives,
- the tremendous power of such words as natural, free from artificial, low fat etc.,
- the interest in cooking as a hobby rather than a chore, the desire for choice and variety in the food which is eaten and even food for fun.

In order for the food business to cope effectively with these rapid changes occurring in society and the economy, food consumption patterns must be examined and the implications for food companies understood. "Time" is a very important determinant

of the contemporary household food shopping and meal preparation behaviour. As a result, in recent years, price has gradually been replaced by convenience as the dominant influence in food choices (Wheelock, 1986, p.20).

From the economists perspective TIME means money. This approach is usually called the "**Chronological**" approach to time which gained significance after industrialisation in the western countries. This approach is generally accepted in the modern societies but, time has another meaning which is generally accepted in traditional societies. This approach accepts time as a "**Succession of Events**" which is determined by the importance of the events, not the duration of time. In rural/ agricultural societies time is generally on a succession basis.

From the literature review, a brief information about time, time orientation, time perception of consumer, time-styles and life-style are supplied, in order to clarify the terms that will be used in the whole study. The main purpose of the literature review is to provide a discussion on the relationship between "time orientation", "time attitude" of consumers and the food purchase and use behaviour of households. "Time" will be examined as both duration and succession/event based on the food purchase and meal preparation behaviour of consumers. Food purchase and meal preparation of households will be examined in detail by using the literature about contemporary home economics research, mainly concentrating on the increased participation of women in the labour force. In short, the research will try to clarify the dimensions of the relation between TIME PERCEPTION, TIME ORIENTATION, FOOD PURCHASE and MEAL PREPARATION behaviour of

consumers. In the light of the data provided from the very rich literature on time, we will try to find answers to the following questions in the further stages of the study:

- Does a traditional attitude (event-based duration perception) has any kind of influence (positive or negative) on convenience (e.g. frozen food, pre-cooked meals etc.) consumption?
- Does the time orientation of consumers affect food purchase and meal preparation attitudes?
- How do the employed and un-employed person's food shopping and meal preparation attitudes differ?
- Is there any significant relationship between time perception and food purchase and meal preparation styles of consumers?
- Are there two different types of food purchase and meal preparation patterns correlated with **chronological** and **succession** based time perceptions of consumers?

The third section consists of a discussion about time in the "Consumer Behaviour " literature and indicates the place of the concept of time in consumer behaviour models. "Life-style" and "time-style" concepts will also be also discussed, these are thought to be directly related to a consumer's time orientation and attitude. Time orientation, consumer time allocation, female labour force participation and time, the use of time as an expression of life-style are the sub-parts within this main section.

In section four, a literature review about food shopping and meal preparation behaviour will be provided. The main reason for us to specify and emphasise the behaviour of women is that there is a vast amount of literature related to food

shopping and meal preparation and women's behaviour. This literature is helpful to understand the consumer behaviour on food shopping and meal preparation activities.

Section five provides information about the methodology of the research and explains the details of the various stages within the methodology selection process. In the following section, section six, the empirical findings come out from the questionnaire survey will be discussed in detail. Three groups of analysis results will be examined under the sub headings.

Within the rest of the study, the abbreviation **FS&MP** will be used for "food shopping and meal preparation".

2. What Is Time? Research on Time

In the literature, the concept of time has been explained from various perspectives. Hirschman (1987) defines time as being operationalised as an objective entity, e.g. long, short, fast, slow, and as a surrogate for a particular activity or category of behaviours, e.g. leisure time, work time , discretionary time(p.56). Davies (1991) identifies time by some of its characteristics such as; ..."time can be used, spent, shared, frittered away, allocated, priced, lost, made, enjoyable, boring, pleasant, perfect or wasted, regular, routine, a flux" (p.1). Time can't be stored, at best, time savings may be applied immediately, but they can't be saved (Leclerc, et al, 1995, p.118). Bergadaa (1990) also lists the multitude of meanings of time including, ecological time, economic time, social time, individual time, and ideal time(p.289). Reid (1977) states that as the principal scarce resource , time is basic to satisfactions derived from

activities, in general, and from non-market production, as well as monetary resources (p.181).

In his article, " The Role of Perception of Time in Consumer Research", Graham(1981) defines time as linear and separable into various discrete compartments as **linear-separable, circular-traditional**, and **procedural-traditional**. Linear-separable model is similar to the Anglo perception where time is seen as linear stretching from past to future and separable into various compartments. In circular-traditional model time is perceived as a circular system in which the same events are repeated according to cyclical pattern. In this model the use of time is neither planned nor segmented. The third model is the procedural-traditional model in which the amount of time spent on an activity is irrelevant, as activities are procedure-driven rather than time driven. For this model, "things are done when the time is right"(p.337). Time is also defined by Feldman and Hornik (1981) as quantifiable, and may be counted in conventional units such as hours, weeks, etc., physically (day, night) or biologically (waking, sleeping).

Also the use of time is grouped as Polychronic and Monochronic by Engel et. al.(1995). Jacoby , et al . put forward that any terminological system developed for studying the time - consumer behaviour relationship must incorporate at least three interrelated notions of ***'time points'***, ***'time spans'***, and ***'time intervals'***. Time points refer to the cross-sectional instant at which some consumer behaviour event takes place; time spans denote consumer behaviour phenomena having some temporal duration, and time intervals denote the amount of time that elapses between two equivalent and consecutive time points or time spans(p.333).

Hornik (1984) [in his interesting article] classifies time measures as subjective and objective by taking into account the perception of time in consumer behaviour. Objective time is defined as ' standard clock time'. Subjective time data is tested with some measure of value to the use of time such as the satisfaction derived from an activity, the subjective meaning of an event. While explaining his theoretical framework, Hornik presents his thoughts as follows : " For some activities , subjects' personal characteristics might explain variance in temporal judgements. For example, Hill and Juster (1980) found that for many housework and non-housework activities, the patterns of judgement are not always the same for men and women"(p.615).

Under the general topic of time, particularly the ideas of *time perception* and the *time orientation* will be used within this study. In the following sections these concepts will be examined in detail.

2.1. Time Perception

Consumers can perceive time in various ways, and these perceptions affect their behaviour in many different ways. Within this study the links between the perception of time with an understanding of consumer behaviour in food shopping and meal preparation will be explored. It is assumed that people who have different perceptions of time behave differently in some aspects such as meal preparation. Graham (1981) states that individuals are not limited to a single perception of time, but can switch from one perception to another depending on the task being performed (p.335). Through this study, we will try to find some empirical evidence related to this statement.

Here, the departure point in examining time perception is based on Fraisse's (1984) study and classification of time perceptions. Fraisse defines time as a highly complex notion and classifies that notion according to two concepts related to time perception; (a) **the concept of succession** which means that two or more events can be perceived as different and organised sequentially; it is based on our experience of the continuous change, (b) **the concept of duration** which applies to the interval between two successive events. As it is clearly defined in the second concept, he believes that ***there is no duration without succession***(p.2). While elaborating the perception of duration, Fraisse asserts that estimation of duration takes place when memory is used either to associate a moment in the past with a moment in the present or to link to past events, whereas perception of duration involves the psychological present (p.9). He concludes that successions are the raw material of the physical world and duration is a construct of the human mind i.e. a learnt construct. Fraisse states that "**perception of both duration and succession are present very early in life, but that their joint functioning is not acquired until age 7 or 8, when the child first becomes capable of logical thinking**".... "**human eyes perceive succession at first, but duration is linked to the identification of on and off effects, to use the language of the physiology** "(p.30).

Foote (1966) explains the concept of succession from his own basic methodological discovery. He reported that if people are asked to define the activity unit, it generally turns out to be an episode: it has a beginning, a middle and an end. These episodes are connected to an end at the end of the day. The day consists of a series of episodes. He adds that there are less than 100 episodes in a day, but for most people

there are as few as 25 per day. Obviously the number varies a good deal among individuals (p.40).

According to Fraisse, the role of the individual differences is an important aspect in the perception of duration. Expectations and attention play an important role in the perception of duration, generally by producing an overestimation of the perceived duration(p.17). He states that " ..the more a duration is filled with complex stimuli the longer it seems, whereas others find that an empty duration seems longer than one filled with complex stimulations..... it depends on the complexity"(P.21). He adds that perception and estimation of duration issues corresponds to a phenomenological order of knowledge that is placed in relationship to physical time(p.29). Fraisse's classification both supports and elaborates the time modelling of Graham (1981). Graham explains time perceptions as "linear-separable", where time is seen as linear - with a past, present, future- and separable into various discrete compartments, "circular-traditional", where time is not perceived as a straight line but as a circular system in which the same events are repeated according to some cyclical pattern. Graham asserts that this perception is seen in traditional cultures where actions were not regulated by the clock, but rather by natural cycles and life was organised around agriculture, food gathering etc., which depended on these cycles. In this model the use of time is not planned and segmented, nor equated with money (p.336). The last time model is the "procedural-traditional" according to Graham, where the amount of time spent on an activity is irrelevant, as activities are procedure-driven rather than time-driven. For this model, things are done when the "time is right" (p.337).

In order to reach a clear understanding of time perception it is necessary to elaborate the concepts of succession and duration. Key point is that a person is borned with succession but chrono/duration particularly clock is learned; people will differ on the importance of the latter. A day basically consists of a series of episodes for a person. There are food-related activities, clothing related activities, housing related activities, personal care activities, education, recreation, transportation, and many other activities in such a regular day. Most of the activities can be easily called routine, and special activities are concentrated at the weekend (Foote, 1966, p.43). Referring to the studies of many philosophers' studies, Gronmo(1989) asserts that change is the origin of our idea of time. A change means that some phenomena are succeeded by other phenomena , and the new phenomena last until the next change takes place. Thus, changes are the manifestations of both succession and duration concepts of time (p.339). He defines point time based on single events, circular time constituted by cycles of repeated events, and linear time defined by continuous movement(p.340).

The research carried out by Hall, Ko and Gentry (1991) proposes another type of classification of the time perception as; m-time (Monochronic) and p-time (Polychronic). M-time people tend to prefer to do one thing at a time, resulting in a greater reliance on schedules, segmentation, and promptness. Time can be saved or wasted are the notions frequently foreign to p-time people . P-time systems are characterised by several things happening at once, and they stress involvement of people and completion of transactions rather than adherence to pre-set schedules (p.135). Although the given names are different the concepts above refer more or less to the same meanings.

The main purpose of this research has been to identify the probable relationship between time orientation, time perception and the food shopping, and meal preparation behaviour of consumers. According to our assumptions duration-driven and succession-driven shopping and meal preparation behaviours are two different group of behaviours and by this research we will try to test these assumptions using data derived from empirical research.

One of the more pervasive factors that affect consumer behaviour in general is defined by the consumers' perceptions of the time required to perform the intended shopping tasks relative to the actual time available to perform such tasks (Park, et al, 1989, p.423). For example, shopping and meal preparation behaviour of duration driven consumers can be illustrated by the preference for single store shopping- where they know the exact place of what they need with, so they do not have to spend any time searching for things- (Thompson, 1996,p.395), convenience foods (as frozen foods, ready meals etc.), use of microwave ovens and dishwashers, fixed buying some ingredients for some fixed-meals. On the other hand, event-driven oriented consumers would prefer shopping around, spending more time to find the best items for ingredients, using fresh foods, using a conventional oven more than a microwave oven, perhaps more concerned for nutritional aspects of meals, and accepting the traditional role of household members.

Duration driven behaviour can be explained by a woman as she demonstrates time saving behaviour. For her, the time taken for an activity is a key issue. Absolutely different from this, and probably opposite to this approach, is the woman with event driven behaviour who sees her life as a success of significant events, managing each

event properly is important not how long the event takes. For her, life is a succession of such events, not duration.

Although it has not been proven empirically by previous research, generally duration-driven dominates behaviour in modern (industrialised) societies, whereas succession-driven dominates behaviour is more important in rural / agricultural societies, but each behaviour could be present in both of such societies. We hypothesise that one or other of the two behaviour types will dominate in any one person.

In real life it is not easy to classify consumers into these two concrete groups. Although these two different patterns of behaviour have been defined, there are some moderating issues which will strongly affect the consumers' and households' attitudes and behaviours. Paid work, increasing participation of women in the work-force, the changing role of partners and children in the household, income and social status of the family are important and affective issues on food shopping and meal preparation attitude. In the light of the data provided from the rich literature on time, answers for the following questions related to time perception issues will be given in the further steps of the study:

1. Is there any significant relationship between the time perception and the food purchase, meal preparation styles of consumers?

2. Is it possible to classify consumers according to the two different time perceptions?

3. Are there two groups of time perceptions defined as duration-driven and succession-driven ?

4. Is there a relation between the time it takes to perform all activities associated with meal preparation and food shopping and the time perceptions of consumers?

2.2. Time Orientation

"Time orientation is the temporal zone favoured by individuals"(Bergadaa, 1990, p.295). Bergadaa in her outstanding study, by using psychologist's explanations , argues that individuals are past-oriented, present-oriented or future oriented depending on such socio-demographic variables as age, social class, sex, level of education, etc. She also provides the examples that; lower classes, and older, and less educated individuals are more past and present oriented than other groups (p.291). Individuals are clearly oriented toward a specific temporal area; past, present, and future. Bergaada presents the dimension of time in consumer action in the form of a model of the temporal cognitive system of the individual. The **temporal cognitive structure** represents reality as perceived and understood by the individual. It is composed of *personal time*, defined as the individual's perception of past , present , and future and of personal aims and motivation, and, *environmental time*, which is individuals view of society and the direct environment (p.290-291).

Time orientation varies with culture (Davies and Omer 1996; Bergadaa 1990; Lin and Mowen 1994) and parental education process greatly influences the children's time orientation. Bergadaa asserts the need for a naturalistic inquiry in order to define

questions such as the influence of culture on the temporal structure with the passage of time (p.300). Davies and Omer (1996) argue that the limited amount of published empirical work on time orientation and time allocation implies that time orientation does not necessarily determine how much time is allocated to a broad activity type, it determines more the content of the activity.

Research on time orientations in consumer research has a special importance for the marketing academics and practitioners. Knowing one's time orientation may help explain one's rate of conducting negotiations, one's rate of adopting product innovations, and one's expected payback period for new products (Ko and Gentry, 1991, p.135). The authors constructed their research basically on the argument that traditional societies favour a past time orientation, while modern Western societies favour a future time orientation.

Denton(1994) developed a dynamic model of personal time-style, which is a similar expression to time orientation of people. This dynamic model proposes a reciprocal relationship between an individual's time-style and his/her close referents, built on satisfaction or dissatisfaction with time-allocation decisions. Denton states that the model offers a new dimension for future research on time and consumer behaviour(p.132). However, having a specific time orientation does not necessarily mean that one's cognition and behaviours are completely dictated by a single dominant orientation. This idea has been asserted and supported by many different studies on time orientation some of which also being referred in this particular research.

Lee and Ferber (1977) made an attempt to represent the concept of life-style in terms of the use of time. The authors assume that "life style will be affected by the goals and attitudes of a consumer unit." They assert that if a family's life-style can be classified as career-oriented, pleasure oriented, or home-oriented, such a distinction should also influence many types of behaviour.

Ko and Gentry (1991) assert that there is a need for the development of time orientation measures for use in cross-cultural research and at the end of their study they suggest future researchers put more emphasis on the scale development in cross-cultural consumer research. The authors believe that relatively less attention has been paid to the subjective time perspective, which is related to people's subjective experience of the past, present, and future . In their study they assert that there are distinctive cultural differences in subjective time perspectives and they provide some empirical evidence to support their claim. Ko and Gentry state that some people are more prone to the past orientation, whereas others are prone to future orientation, depending on their cultural backgrounds (p.135). After reviewing the current literature about time orientation, the following questions need to be raised. These questions will be elaborated in the interpretation of the empirical data.

1. **Can time orientation (past, present, and future orientations) be sufficient to explain why many working women do not adopt time saving strategies?**
2. **Does the time orientation of consumers affect food purchase and meal preparation attitudes of them?**
3. **Is there sufficient support for the past, present, and future time orientation concepts from empirical findings?**

4. Is it possible to place a person in one of these concrete groups of time orientation?

5. Is there any relation between the time orientations of consumers and demographic information related to the consumers?

Within the sections above, the literature about time issues which are more related to the areas of psychology and philosophy have been examined. In section three below the issue of time in consumer behaviour discipline will be elaborated on. Here the new home economics is particularly relevant.

3. Time and Consumer Behaviour

Engel, Blackwell and Miniard (1995) assert that to understand consumer behaviour fully, marketers must also examine how consumers spend their time budgets. They add that in the future the chief concern will be buying more time rather than more products, especially for affluent consumers. Davies (1991) argues that time is not generally seen yet as a potentially dominant factor affecting purchase, apart from a few, specific circumstances and he asserts that many products and services have significant time associations. Gross (1987) believes that the study of time is a relatively new research area in consumer behaviour, growing in popularity since the mid-1970s and he adds that it is still less than mature stating that; " Although it is recognised that 'any consumption decision necessarily involves some allocation of time', it has also been noted that it is almost as if the fact that time exists and must affect consumer behaviour has just been discovered" (p.31).

In his article, 'Situational Effects on the Consumption of Time', Hornik (1982) discusses the situational influences on the consumption of time. He believes that although intensive knowledge has been accumulated through some research efforts concerning situational effects on the use of several products and services, situational influences on the consumption of time have remained largely unexplored (p.44).

Situational conditions frequently influence people when making judgements about time (Carmon, 1991, p.704). Knights and Odih (1995,p.209) referring to the study of Gibbs (1993), state that situational and individual differences determine the phenomenological, personal experience of time and the value placed upon it is dependent on the transaction. The authors also discuss the idea of temporal embeddedness, developed by Lewis and Weigart (1990). This concept recognises that human life, and social actions are a complex overlap of actions and meanings at various stages of enactment. Each action is embedded within a perceived or prescribed duration. Knights et al. continue to argue that the "**everyday lives of many women are characterised by simultaneous actions, each embedded within overlapping temporalities**"(p.212). Going one step further the authors identify a significant disparity between the discursively constituted nature of feminine non-linear and masculine linear conceptions of time(p.224).

For more than twenty years, several papers concerning time have been published within the consumer behaviour literature. Carmon (1991) summarises the main research on time in his article " Recent Studies of Time in Consumer Behavior". This research includes the effects of time pressure on consumer decision making (e.g., Howard and Sheth 1969, Wright 1974 and Johnson and Payne 1985), and perception

of time (e.g., Hornik 1984, Feinberg and Smith 1989, Due-Rioux et al. 1989, and Carmon 1990) and several interdisciplinary reviews (e.g., Jacoby et al. 1976, Feldman and Hornik 1981, and Gross 1987)" (p.703).

In a recent study, Lin and Mowen (1994) assess the impact of time on consumer behaviour as having received increased attention in the literature. Jacoby, et al. (1976) assert some basic assumptions about time in consumer behaviour, these are; 1) time exists in limited and finite quantities for any given consumer, 2) time is a basic intangible resource having certain properties as it cannot be stored, 3) time has cause and effect properties; it can be an antecedent, a consequence, or both (p.332).

Most of the authors emphasise the fact that marketers must examine how consumers spend their time budgets. According to Engel, et al., time-style refers to how consumers allocate their time among various activities. Consumer time budgets are generally regarded as having two main components; work and non-work activities. Hirschman (1987) assumes that the duration of activities recorded in the time budget are interpreted as representing the consumer's expenditure of time resources and as an indicator of his/ her life-style, she adds that hours/days are viewed as equivalent as they are expended in various activities (p.62). Feldman and Hornik (1981) classify activities as; **Work at Job**, **Necessities**, **Homework** and **Leisure**. They explain these concepts as ; " ***work*** is paid time that enables the individual to acquire economic purchasing power through income", "... ***necessities***, such as sleeping, eating, etc., are essential self-maintenance activities, and "...***homework*** is time used generate services with close substitutes in the market" (p.410).

Nickols and Fox(1983) propose some time-saving strategies which consist of some precautions related to individual time allocation. They suggest that time allocated to volunteer and community work and, to leisure and/or sleep has decreased. Graham (1981) in his article debates the role of perception of time in consumer research and asserts that the perception of time concept embodies the idea that people can make a choice in assigning their time to different time activities , as work, leisure , study, etc.(p.335). The perception of time is definitely related to the allocation of time of a particular consumer.

Feldman and Hornik (1981) define that a more meaningful categorisation of consumer time use considers three aspects of time allocation decision: 1) the activity within the time space, 2) the personal space of consumer as it relates to needs and perception and evaluation of alternative need-satisfying activities, 3) the presence of environmental or situational factors that constrain choice(p.408). They demonstrate a clear mapping sentence of time allocation in terms of basic sets of elements with the following relationship:

" The BEHAVIOURAL modality of the consumer (X) toward activities is conditioned by his/her subjective , normative MEANING and RESOURCE constraints. The consumer's choice is mediated by ENVIRONMENTAL conditions, and s/he will derive positive or negative satisfaction from certain activities, given a set of PERSONAL characteristics. All this takes place within a specific time span"(p.408).

Leuthold (1981) reports that Mincer (1962) opened the way of viewing the allocation of time decision as not simply between work and leisure, but between work in the market, work at home and leisure. At the end of his empirical study,

Leuthold found that the wife's wage is an important determinant of the time spent in home production and child-care by two earner families, whereas the husband's wage is not. The results show that men work more outside of the home and less at home as they grow older, whereas women spend less time on child care as they get older. Education leads men to spend more time working outside the home and women to devote more time to child-care.

The perceived use of time also varies with role demands , such as whether a person was single or married, employed or unemployed, or a part-time or full-time student (Bond and Feather ,1988). In their study, addressing the study of Wessman, Bond and Feather comment that " the individual's experience of time, and the way he orders and structures his life within the temporal context, is a basic feature of personality"(p.322). Hornik (1982) identifies time allocation patterns as important indicators for marketers to understand because they should give their decisions in the light of individuals' time usage patterns. "First time usage has been regarded as an indicant of life-style and used to predict other forms of consumption. Second, in the light of the strong relationship between many goods and services and the consumers' time, the understanding of consumers time perception and allocation should assist marketers seeking to exploit the time market more efficiently. Finally, the identification of factors that account for variation in patterns of time expenditures may be used to define market segments whose delineation enhances the effectiveness of marketing programs"(p.44). Related to this claim, many life-style studies are being conducted in different cultures all over the world.

Douglas and Urban(1977) assert that life-style studies profile consumers in terms of their daily life patterns, work habits, leisure activities, interests and self-perception, aspirations and frustrations, attitudes towards family and others beliefs and opinions about the environment around them.

Lee and Ferber (1977) proposed a time budget approach to examine the relationship of time allocation by life-style. They attempted to represent the concept of life style in terms of the use of time , and it was their belief that life-style would be affected by the goals and attitudes of a consumer unit. In their study, they divided weekly time use in three major life-style categories: career-oriented, home-oriented, recreation-oriented, and time allocation among various activities was used as a general indicator of each life-style (p.78).

Hirschman (1987) noted that time-use patterns of consumers could be changed by social changes in a specific period of time (p.65). Her point of view was that, objective (clock) time and subjective (personal) time are nonisomorphic, because the subjective duration will differ across individuals as well as within individuals- depending upon: age, gender, education, complexity of the task, field dependence/independence, sensory deprivation, length of task, personal stress, imaginary ability, social class, intelligence and mental stability (p.68).

Arndt, Gronmo and Hawes(1981) examined the use of time as an expression of life-style by undertaking a cross-national study between the United States and Norway. They have found that time budget approach was fairly successful in throwing light

on an important aspect of life-style - the temporal dimension of life-style in a quantitative form(p.26).

Although, not taking time issues into account, Fournier, et al.(1992) present an empirical application of behavioural segmentation based on the collective patterns of a household purchases across different product/service categories over time. 'Social class' is an important determinant of life-style. Murphy (1978) examined the effect of social class on brand and price consciousness for supermarket products. In his study , he did not mention the 'time factor' as an important influencing factor of supermarket shopping behaviour.

4. Food Shopping and Preparation seen from Time Perspective

In the consumer behaviour and marketing literature, although there is an amount of research about female labour force participation and its impact on time allocation, shopping time and style , household production time and style, but there is little work on food purchase and meal preparation issues. So, in this research an attempt has been made to elaborate the food shopping and meal preparation issues by using the literature about female labour force participation as a starting point.

4.1. Participation of Women in the Labour Force

Some of this research surprisingly reaches opposite conclusions in this specific area. For example Galbraith (1973) asserts that families with employed wives spend less on durable goods than un-employed wives, and Mincer (1960) states exactly the

opposite of this assertion by saying wives' earnings are likely to be invested in durable goods(Nickols and Fox, 1983). In their article, Nickols and Fox assert that employed-wife families more often use time-buying strategies than un-employed-wife families. They are more eager to purchase child-care, meals away from home, and disposable diapers.

The earliest of the recent studies identified that the wife's employment status affected her food shopping behaviour. Some studies have indicated that attitudinal constructs such as role or career orientations are more important than employment status. Roberts and Wortzel (1979) found that neither employment nor role nor career orientation has much effect on food shopping behaviour. As an important finding they concluded that food preparation interests affect reported shopping goals and behaviours took place within their study. Authors believe that **women are simply learning to manage their shopping and food preparation activities in accordance with their desires, rather than their job demands**(p.38). It is obvious that time-poor working wife may be approached with a time-saving appeal while the housewife may be approached as she were automatically nutrition conscious.

Nickols and Fox (1983) argues that such variables as family income, food preparation style, or other life-style indicators might be more important predictors of consumer behaviour than the employment and un-employment of wife(p.198). In another study, Weinberg and Strober (1980) found no differences between employed and unemployed wives in use of convenience foods, holding income and life-cycle stage constant. Roberts and Wortzell (1979) provide some examples asserting a completely contrary behaviour, for example, a study found that working women are more likely

to buy frozen foods than are non-working women and another study reported an opposite finding. These authors also debate the 'modern' and 'traditional' roles of women. They also add that , the husbands of working women more likely to do the majority of grocery shopping while husbands of non-working wives were more likely to purchase just a few items (p.29). Reilly (1982) states that family income and family social status both have been found to correlate with convenience consumption. To the extent that these are affected by the wife's employment, an indirect relationship between working and convenience consumption might be expected (p.407). The author found that role overload was causally related to working and convenience consumption. But he could not find a statistically significant relationship between family social status and durable ownership and between role overload and convenience foods served. Reilly concluded by stating a need to well explore the factors influencing the use of convenience foods and the ownership of time saving durables (p.416).

Weinberg and Winer(1983) implemented a study comparing purchases by working and non-working wives and the amounts spent for time-saving durables, hobby and recreational items. Their approach originally stemmed from economic theory which suggested that the families of working wives and non-working wives with the same amount of income should differ with respect to purchases of time-savings goods and services. Strober and Weinberg (1980) found that neither the purchase decision nor the ownership of microwave ovens which are thought to be time-saving durables was significantly related to the wife's labour force status, holding income and life cycle constant.

Thompson (1996) states that for working women, cooking was one routine activity where the rushed nature of their lifestyle became particularly salient. He adds that these consumers rely heavily on pre-cooked and pre-processed foods as they do not have time to cook. This gain in time and efficiency, however, also served as a persistent source of guilt. The author provides that historical and cultural studies document that cooking has been central to the social construction of motherhood in American consumer culture, and in the context of this cultural framework, products such as crock pots, pressure cookers, food processors, and , most important, the microwave oven assumed a symbolic significance by enabling the task of traditional cooking to be compressed into a more bounded and accelerated time frame (p.396). A common solution to the time pressure problem in cooking was that , most working women to enrich fast food meals by adding a more traditional and presumably nutritious item, typically a green vegetable. Thus, these working mothers use this consumption practice to negotiate the disparity between a traditional home-cooked meal and the use of commercially processed food(p.399).

Oropesa (1993) examines "female labour force participation and time-saving household technology" by providing a case study of microwave oven from 1978 to 1989. Oropesa asserts three starting points towards understanding the relationship between a wives' labour force participation and the adoption of time-saving technology: "*1) the production function approach of the new school of home economics, 2) role theory and sociological research on the sexual division of labour in domestic production, and 3) research on the relation between wives' labour force participation and purchases of time-saving consumer durables"(p.568).* The new home economics accepts the household as a small factory that produces as well as

consumes to maximise utility. Households attempt to maximise the utility by collecting the best combination of limited resources as time, income and technology. The author explains the sexual division of labour force and time saving technology consumption according to this new approach of home economies.

Qualls (1981) assumed that men were becoming increasingly involved in household facilities, while women were increasing their participation in the labour force . Robinson (1988) found that in the early 1980's men participated more in cooking activities than they had done in 1965, as the ratio done by women in cooking meals decreased from 87% in 1965 to 77% in 1985 (p.59). The author confirmed that over the past few decades, the time the average woman devoted to cooking, cleaning, and laundry had dropped by eight hours a week in the USA. He added that a woman's employment status was as an important determinant of time the she spends doing housework as was her marital status (p.61). In their study (1980), Ferber and Birnbaum tried to estimate the total lifetime contribution of the wife to the family, given various patterns of labour force participation and they found it increases considerably as the wife's labour force participation increases. In an earlier study these authors paid special attention to the employment of wives, and hence to a set of conditions affecting point decisions of spouses between market and non-market production and between production and consumption. They also touched briefly on the economics of marriage, fertility, child quality, and time costs of product utilisation (Reid, 1977, p.181). Reid also stated that many types of secular change as decrease of birth rates, expansion of service industries, decentralisation, as well as increase of formal schooling of wives, undoubtedly affected the number of women in gainful employment (182).

4.2. The New Home Economics

Becker (1965), in his seminal paper, asserts that an increase in the value of a mother's time may induce her to enter the labour force and spend less time cooking by using pre-cooked foods and less time on child-care by using nurseries, camps and baby-sitters(p.514). Dramatic changes in the households in the past decades have obviously influenced the market place. The market has responded to this change by providing a new range of services and durable goods (Meeks and Sweaney, 1993,p.105). Lamb (1993) presents research related to microwave ovens and vacuum cleaners.

Roberts and Wortzel (1979) use life-style variables as predictors of food shopping behaviour. They assume that there are three basic strategies which can be employed in meal preparation and food shopping. These are ; **1) the price of food, 2) the quality of food and meals, 3) the time it takes to perform all activities associated with meal preparation and food shopping**. From their point of view, price and quality are closely associated with traditional role orientation, and a concern for time definitely is associated with contemporary women, as their expanded roles allow less time for performing traditional tasks. One of the main hypotheses of their research is as follows: **" Women who are oriented toward contemporary roles or life-styles will be concerned about saving time regardless of family income."**

The authors reach an interesting conclusion that ' the concern for time' factor was found to be demographically independent, **no one demographic variable was strong enough to predict role orientation, 'contemporary orientation' correlated positively with ' anti-cooking' and the 'joy of cooking' factors**. The contradiction

within this result was explained by the findings of Reynolds, Crask and Wells study (1977). This study reports that **Women's attitudes towards their basic roles have undergone rapid and drastic change and in such a period attitudes toward food and preparation are linked to the basic rapidly changing role attitude could be quite varied or could be changed less rapidly** . Therefore, within the group which has a general orientation toward the contemporary role, there is room for a variety of attitudes toward the specific activity of food preparation. Also, **traditional orientation was found to have a negative correlation with 'concern for time' and 'empirical shopping behaviour'. (p.36). Authors fit the high level of quality consciousness and the lack of concern about time with the traditionalist nature of service orientation.** They add that **food preparation style factors accounted for the largest portion of exchange variance in only two equations - 'concern for time' and 'concern for quality'**. Roberts and Wortzel found that concern for time stems from a negative attitude toward meal preparation coupled with an orientation toward expanded roles for women (p.37). It is also evident that **the origins of women's food shopping behaviours are much more complex than the conceptualisations used by that or previous research(p.38).**

Engel, et al. (1995) believes that married working women experience many time pressures, by having two jobs: household responsibilities (including children), plus their jobs in the market place. Hunt and Kiker (1981) found that the number and presence of young children tend to increase, whereas "quality" of children tends to decrease, the time wives devote to the household tasks. Mothers who are concerned about the high educational quality of their children, create more leisure time for themselves to spend more time on their children (p.380).

Most of the research in this subject area show that working women have significantly less time for leisure activities than either their husbands or full-time homemakers. As a natural consequence of this, men are becoming increasingly involved in household activities , while women are increasing their participation in the labour force (Qualls, 1981). Robinson (1977) found further evidence in two national surveys that not only did the husbands of wives in the labour market fail to perform more household care than husbands of housewives, but that overall they enjoyed more free time than husbands whose wives were not in the labour market. He adds that despite the fact that women who work suffer the loss of 10 or so weekly hours of free time and feel much more rushed psychologically in the process, employed women report no less satisfaction with their lives or with free time activities than housewives who enjoy half as much again as free time. He concludes that wives set higher or idiosyncratic standards on household production. Preparing high nutritional value meals, full meals with 2-3 courses, and cooking time consuming meals in case of using convenience meals can be good examples of this type of standard in meal preparation (p.179).

Arndt and Gronmo (1976) address the fundamental, but neglected aspect of consumer shopping behaviour , the consumer use of time for shopping. They assume that some of the fundamental dimensions of consumer behaviour might be summarised by the time factor. They also propose that their study gives an incomplete picture of time dimension of consumer behaviour.

In his study, Hawes (1976) examines two topics; 1) how Americans spend their fixed time income, and 2) how they are inclined to spend additional discretionary

time. Both of these topics are exactly correlated to the life-style of American consumers and households. While reporting a literature review about family role structure , Jenkins (1980) suggests that role structures are affected by relative resources such as income, education and time contributed by the various nuclear family members.

Oropesa (1993) asserts that households are facing severe time constraints as women increase their participation in the wage economy, and he examines the effect of female labour force participation on time saving household technology particularly microwave ovens. Bellante and Foster(1984) published research on time-saving services. Frank and Wheelock (1988,p.26) summarise the situation in Europe by using market research data on food consumption; "In most of Europe, married women now make up a significant proportion of the total labour force. Families with two adults at work have less time to prepare meals, but two incomes provide the household with the means to purchase the relatively expensive animal products, convenience and/or high quality foods as well as to buy take away meals or to eat in restaurants. The growth of the convenience food market that consumers are prepared to pay the extra costs in order to reduce the amount of time and effort associated with home preparation of meals".

Roberts and Wortzel emphasise the concept of the 'contemporary woman' in case of the working woman and instead of specifically showing a working woman in a time-saving situation, they recognise that the contemporary woman has multiple demands on her limited time whether or not she is employed. In this research, age was found to be a strong predictor of a traditional food preparation orientation. They assert that

whether a woman is employed outside the home or not, she is likely to hold a multidimensional view of her world and her various roles (p.38).

Anderson and Cortez (1994) examined working women and household expenditures for food away from home and provided a comparative study between the USA and Sweden. As a result, they found many similarities between the USA and Sweden in the impact of total food expenditure, woman's age and female working hours on the pattern of food away from home expenditure. Another cross-cultural study was carried out by Reilly and Wallendorf (1987) on a comparison of group differences in food consumption by analysing household refuse . A woman's influence on family purchase decisions, which is another broad area of research and another related issue for our research has been examined by various researchers (Roberts, Green and Cunningham 1975, Burns and Granbois , Cox 1975, Wilkes 1975, Childers and Rao 1992, Spiro 1983, Kimmel 1993).

Food preparation is an important aspect of culture. In his study " Eating at Home: Meals and Food Choice" Marshall (1995) elaborates upon the meal preparation event , and asserts that ; " each culture distinguishes between eating occasions according to when and how often the occasion takes place (routinization), what food is served (content), who is involved (participation), how the food is consumed (method) and the significance of the event (function)"(p.2).

Time pressure influences purchasing and consumption (Gross, 1994). From that initial suggestion it can be assumed that "the existence of varied and subjective temporal perception / orientation implies differential perceptions of time pressure

varied responses to it(p.120). Berry (1979), focuses on the fast-rising number of women in the labour force, and the increasing amount of time spent on behalf of physical and mental well-being. He also says that for women who have children, time pressure tends to be even more severe. **In this point of view, many time-pressured consumers with meal preparation responsibilities are viewing this activity as an opportunity to economise on time. Buying microwave ovens and ready-to-eat and other convenience oriented food is the natural result of that trend**. Almost everyday, new food products and packages designed for microwave cooking are being introduced to the market place. Berry summarised some common time-saving tactics of time-pressured consumers as :

- Not asking for special cuts of meat
- Buying in Quantity
- Patronising less crowded stores
- Postponing shopping because of crowds
- Using convenience stores
- Shortening the shopping list
- Purchasing packaged produce
- Purchasing easier to find brands.

As a result Berry supposed that; "retailers that help time-poor consumers increase stock of discretionary time -through shopping efficiencies and the offering of time-saving goods and services- will generally find the effort to be worthwhile"....."many retailers will profit in the 1980s by helping time-poor consumers increase their stock of discretionary time". Park, Iyer and Smith (1989) explored the effects of store

availability and time available for shopping, in their study, and they asserted that time pressure primarily had an effect on the frequency of failure to make intended purchases. Similar research has been conducted by Umesh, Pettit and Bozman (1989), to explore the shopping especially in-store behaviour of time-sensitive consumers and by Fram and Axelroad (1990) to examine the case of distressed shoppers.

Ajzen and Fishbein (1980) stated that the basic design of the previous research on this subject was first to classify a group of females as either career-oriented or home-making oriented(p.115). They concluded that "young women strive to attain some outcomes and avoid others. Most women want to enjoy life, feel emotionally secure and fulfilled, use their talents wisely, have time to devote to their own goals and plans as well as to their families, and be exposed to new people, ideas, and situations without having to worry about work or financial security. At the same time , they do not want to be burdened with many responsibilities, miss out on things, or become hard and selfish"(p.128). These researchers define the female consumers' attitudes from the psychological perspective. Blaylock and Smallwood (1987), while they are working on intra-household time allocation, hypothesised that many skills and habits may be acquired via the role models played by people's parents, for example women may have been trained informally by their mothers in the intricacies of food preparation, shopping , use of coupons, and other household tasks associated with the female head of household (p.190). The authors found that there was a stronger support for the premise that younger and better educated couples are more likely to share household responsibilities than their older, less educated counterparts (p.200).

The closest study to the assumptions and purposes of this research is the study by Roberts and Wortzel (1979). They provide a "Hierarchy of Effects Model of Food Shopping Goals and Behaviour". This model is given as follows by the authors:

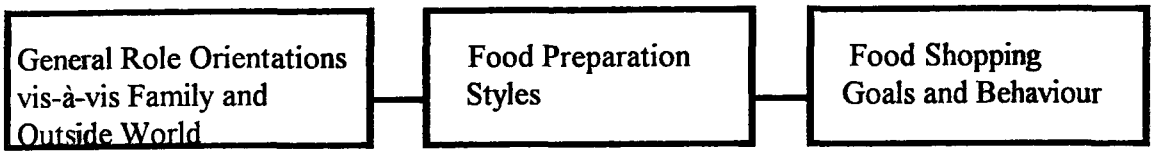


Figure 1 Hierarchy of Effects Model of Food Shopping Goals and Behaviour
Roberts, et al. "New Life Style Determinants of Women's Behaviour",JOM,1979 V.43, p.30

Presented by the figure above the authors hypothesised that a homemaker's preferred food preparation style would be the major determinant of the manner in which she approaches the activities associated with food shopping. They further hypothesise that food preparation styles may be conditional upon role preference since the contemporary role de-emphasises the importance of many traditional homemakers tasks (p.30).

At the end of this highly complex part, we have defined further questions which will be answered in this particular study.

1. How do the employed and unemployed women's food shopping and meal preparation attitudes differ?

2. Are the two different types of food purchase and meal preparation patterns correlated with duration-driven and succession-driven time perceptions of consumers?

3. What are the main determinants of the food shopping and meal preparation attitudes?

4. Do the contemporary and traditional women behave differently in meal preparation?

5. Research Methodology

Obviously the purpose of the research is to find answers to the given research problems and finalise the hypotheses testing. With assistance from previous research and the literature, it has been deduced that the methodology for the empirical work is suitable for the particular purposes of this research.

5.1. Research Objectives

The main aim of the research is to find reliable answers to the questions raised during the literature review. Related to these research questions some propositions emerged which also will help to configure the research methodology. Within these propositions it has been aimed to define the relations between time and FS&MP issues. Obviously, while creating these propositions the massive literature in consumer behaviour has been used. The rationale behind each proposition will be provided below. There are three important determinants of meal preparation and food shopping, these are ; the price of food, the quality of food and meals, and the time it takes to perform all activities associated with meal preparation and food shopping. It is assumed that, price and quality variables will be most likely associated with a succession-driven time perception, and time will be associated directly with duration-driven time perception. Specifically, the following four main propositions have been developed:

Proposition 1

[m1] Consumers who have duration-driven time perception will exhibit time-saving attitudes toward meal preparation and food shopping.

Duration-driven time perception can be illustrated as follows:

- always being on time,
- highly organised time attitude (to use a diary, organiser etc.),
- belief that time is very precious and it can be saved,
- accepting that a day is successful if it is full with many scheduled activities and tasks.

It can be assumed that consumers with this sort of time perception will also prefer to save time at home. Time spent at home in doing housework is generally accepted as a non-productive activity. So, time conscious consumers will try to minimise the time spent in housework in which food shopping and meal preparation plays an important role and to maximise the time for more productive activities or at least for some planned recreational activity. It is asserted here that as a result of this type of perception consumers buy and use more time saving foods (e.g. frozen foods, pre-packed meals, pre-cooked foods etc.) and devices (e.g. freezers, microwave ovens, etc.).

We expect that a concern for time saving attitudes stems from a negative attitude toward meal preparation, coupled with an orientation toward duration-driven time perception. This research attempts to learn whether consumers do many food related

things 'the same way their parents did' and whether they are highly organised in their approach to food purchase and meal preparation tasks.

Proposition 2

Consumers who have succession-driven time perception will agree that "cooking is an important event" .

The main indicators of the succession-driven time perception can be summarised as follows:

- The activity is important itself than the time spend on realising it.
- Life is a continuum of events.
- Every activity or event is important in itself.
- It is more important to do things properly than to do them quickly.
- Use of a diary/calendar (which is a schedule of events)

So, consumers who perceive time in this context are not bothered about how much time it takes to buy or cook food, because food shopping and meal preparation are important events related to some important aspects as nutritional quality, taste, family issues etc. Possessing this perception consumers believe that to prepare a delicious and high nutritional quality food is important, and also they enjoy performing such an important activity.

Proposition 3

Specific attitudes toward shopping and meal preparation will be better predictors of food shopping and meal preparation goals and behaviours than some time orientation or time perception variables.

It seems certain that food shopping is a dual purpose activity, fulfilling a social function as well as an economic one , serving not only as a means of meeting the food needs of shoppers but also providing some social intercourse. Food shopping seems to be perceived by some types of consumers as a social event. In his study Kaynak (1987) found that a significant amount of food shopping in Turkey is done with other people (p.45-46). He also found that food shoppers in urban Turkey are generally willing to devote more time to shop for food than those in developed countries.

Shopping is also defined as one of the most enjoyable housekeeping activities. It gives especially to the full time housekeeper, the chance to get a bit of fresh air, meet an acquaintance and have a chat with her friends (Kock, 1988, p.133).

Cooking in Latin America for example, is regarded as typical women's work. The woman's role in preparing the food is of great importance. She is responsible for the entire process from natural product to cultural product, and this is seen as her given duty. "Although cooking is not viewed as a particularly prestigious activity, a woman's culinary skill means a great deal for her esteem (Borda, 1988, p.104)

Another dimension of cooking activity is that, it can be easily classified just as hobby for some people which differentiates it from being routine , boring housework. Some people perceive cooking as a hobby. Even a highly time-conscious person could spend a lot of time in the kitchen to cook a special food, as he/she has already scheduled this activity as a recreation on his/her time schedule. In reality it is very hard to examine these highly complex aspects apart from the various dimensions of which they consist.

Roberts and Wortzel (1979) found that food preparation styles contribute more to an explanation of general food shopping patterns than role orientations. This research includes a similar study to identify the situation related to time orientation. Roberts and Wortzel state that women's (and in general consumers') food shopping behaviours are much more complex than the conceptualisations used in previous research. Herrmann and Warland (1990) identified five categories of consumers, referring to consumer's use of nine food-buying practices widely recommended by consumer educators. At that point some psychological and life-style variables show up in order to define the real life situation. Further research on this topic will need to be more in multi-disciplinary and multi-variable pattern to cover the missing aspects.

Proposition 4

Attitudes towards time will be better predictors of food shopping and meal preparation issues than demographics.

In the literature time orientation has been classified as;

1. Past Orientation,
2. Present Orientation,
3. Future Orientation.

It is assumed that different time orientations have also something to do with food shopping and meal preparation issues. Roberts and Wortzel (1979) have done a research on contemporary and traditional women and their food shopping behaviour.

In this study the relation between the different time attitudes and different meal preparation attitudes will be clarified. Past orientation could correlate with 'food shopping and meal preparation is an important event' perception. Because consumers with a past orientation prefer society the way it was, therefore they prefer and appreciate traditional meals and meal preparation styles to contemporary ones. Future orientation could be related to 'time saving in cooking' attitude. Present orientation is not such an easy concept to deduce and relate to a specific food preparation attitude. In the literature it is accepted that, future oriented people organise their present day tightly in order to reach their future goals. This type of consumers may present time saving attitudes towards FS&MP activities.

5.2. Methodology Selection

In consumer research there are many different ways of collecting data from consumers. But, the purpose of this study requires the high level of co-operation of consumers,

to understand the consumer behaviour on time issues and food shopping-meal preparation behaviours. In order to reach a judgement about consumers the quantity of data is as important as the quality. In the consumer research literature, the best method to obtain a relatively large quantity of data from consumers is being accepted as to apply a questionnaire survey.

5.2.1. Methodologies Used in Previous Research

During the literature review much research into consumer behaviour has been examined. **The Questionnaire Survey** method has been found to be the most common and reliable instrument in order to obtain data from consumers in such work. For example Roberts and Wortzel (1979) tested their hypotheses using a structured questionnaire with 169 respondents who were recruited through several voluntary organisations in the USA. The women were requested to participate in group sessions in which the purpose and method of the research was explained to them. Polegato and Zaichkowsky (1994) collected data from husbands and wives with identical self-completion questionnaires distributed with a convenience sampling procedure which focused on contacting married women living in two metropolitan areas. Boedeker (1995) collected data by a mail survey in 1990 with 1475 respondents. Each of the researchers above used factor analysis in their data analysis. McCall (1977) in her research on "effect of work on consumer behaviour of women" conducted a major questionnaire survey, consisting of 129 questions mailed to 1092 women. Partly in order to make valid comparisons, research methodology of this research was created compatible with the previous research done on this area.

5.3. Questionnaire Design Stage

The first step in the methodology for this project was to make initial observations in the supermarkets and superstores in order to understand the behaviours of consumers when food shopping and their time usage patterns. To provide a wider qualitative understanding of food shopping and meal preparation , the behaviour of food shoppers in a range of different stores was observed. The observations were conducted in various type of food stores as ASDA (Dales) and ALDI (Discount Stores), TESCO, J.SAINSBURY and MARKS AND SPENCER (so called Superstores), both on the consumers (behaviour, demographics etc.) and the products they considered. Also the store type and layout were observed to understand the new trends in retailing relating to changing consumer demand. As a second step, focus group interviews were conducted to elaborate on the dimensions of the time perception, food shopping, meal preparation behaviours and attitudes of respondents. One of the focus group interviews was highly structured and taped. Two focus group interviews were held of shoppers who were also responsible for meal preparation. From these and from earlier work on time orientation (Ko and Gentry, 1991; Davies and Omer, 1994; Omer, 1995), and meal preparation (Roberts and Wortzel, 1979) a draft questionnaire was prepared to assess people's attitudes to time, food shopping and meal preparation.

One focus group interview was carried out in Manchester Business School with doctoral students from 5 (English, American, Pakistan, Taiwan, Scoth) different cultural and demographical (gender, age, income, marital status etc.) backgrounds. The group size was 6. This interview was highly structured and taped. It took

approximately 2 hours and various different viewpoints aroused during the session. Some highlights of the discussion can be summarised as follows;

- "Eventhough I feel a massive time pressure on me, I always try to cook fresh food for dinner",... "I generally shop daily for food", ... "Shopping is a kind of social transaction for me",... "My attitude toward FS&MP activities is similar to my mother's attitude",..." I use a diary to plan my daily life", ... "I prefer to use conventional oven than microwave oven".... " I really like cooking"(Scottish, woman, single, 21 years old).

- " I hate cooking",... " I feel time pressure on me",... " My mother hates cooking as well", ... "Cooking is a waste of time", ... "I prefer to take feeding pills to live",.... "I heavily use microwave oven and frozen foods",... "I have more important things to do than cooking", ... "I hate to hear about the traditional roles and duties in a family"... " Car ownership definitely influences the amount I buy, if I have my car I buy many frozen items and fill my fridge and forget about shopping for a long time"(American, woman, single,34 years old).

- " I like to cook time consuming traditional meals for my family and guests but I do not spend time to cook only for myself",.... " I use a diary to schedule my activities and appointments", ... " I do not have a car so I prefer to shop from the nearest neighbourhood supermarket", ... " I like to use frozen food",.... " I like to try different recipes from various cousine" (English, man, cohabitant, 34 years old).

This in-dept interview provided a very supportive background for the realisation of the questionnaire. Most of the empirical findings were found to be correlated with the focus group interview discussions.

The second focus group interview was done with a group of students with different cultural and educational backgrounds. The group size was 7 and the participants were women at different ages ranging from 21 to 32, continuing post graduate education, coming from different countries (England, Greece, Sudan, Pakistan, Turkey, Cyprus, Mexico). Many different viewpoints emerged from this group interview which took place in the questionnaire in the later stage. These two focus groups were helpful in developing the questionnaire. Many statements on the questionnaire were directly derived from the ideas and comments of respondents in these two focus group interviews.

To measure time orientation and time perception a number of Likert-type statements were developed. Some of the statements were taken from previous studies, Ko and Gentry (1991) and Omer (1994). To measure food shopping and meal preparation attitudes it has been established various statements related to role sharing in the family, cooking, and food buying issues. In this section, previously tested variables from the study of Roberts and Wortzel (1979) were used.

Finally, approximately 200 statements were drawn up to be refined and tested on the various consumers . A 7-point scale was chosen, in order to compare results with previous research. The scale used was a 7-point Likert scale ranging from strongly disagree with the statement to strongly agree with the statement. Within the

statements were questions designed to assess duration , succession, past, present, and future orientation, enjoyment of cooking, traditional role orientation in shopping and meal preparation and, finally, a role sharing / modern orientation to shopping and meal preparation.

5.3.1. Pre-test Stage

A series of pre-tests were carried out in order to construct a better questionnaire with clearly defined statements. The first group of pre-test was applied to 25 respondents, and after the modification of the questionnaire according to the response, to another 15 respondents the second pre-test applied. Pre-test sample was selected according to the convenience. Questionnaires were given to consumers with different educational, professional, and cultural backgrounds, and the respondents were requested to give any kind of feedback to the researcher. Many valuable comments and corrections related to the wording and structure of the questionnaire were raised by the respondents. Most of the corrections were about the wording of the statements which were corrected carefully. Each comment, each correction and each misunderstanding has been taken into account to reach to a better understood questionnaire. The questionnaire was subsequently modified, particularly to reduce its length, to 168 statements, 12 demographic variables and 3 questions on durable ownership. During the evaluation of the questionnaire results , it has been identified that there was not any missing statements reported because of misunderstanding.

5.4. Pilot Study

A pilot study was conducted to test the validity, reliability and accuracy of the questionnaire. Various useful concepts of time was developed. A questionnaire was prepared in order to use it as an accurate instrument to measure consumers' attitude, for the empirical work applied in this research. By the mini-project, the questionnaires were distributed to consumers selected according to convenience sampling. By doing this, a large amount of pre-test of the actual questionnaire was applied.

The pilot study presented the results of a study of consumer's attitudes and behaviours related to one of their traditionally important consumption-related roles; food shopping and meal preparation and their time perception. This study identifies a range of factors that are linked to time perception and food preparation of consumers. An extremely unique and specific set of variables has been defined in order to obtain detailed consumers' attitudes and behaviour patterns. In the literature there are limited reports of research specific to this topic. For the pilot study, convenience sampling was benefited in order to deliver and gather data from consumers as soon as possible. **100 questionnaires** were printed and distributed with a cover letter and a postage-paid envelope.

Respondents are selected from five main groups of consumers: **Sample I.** Customers who shopped at the SAFEWAY supermarket at the research day, City Centre, Manchester, **Sample II.** Manchester Business School Doctoral and MBA students, **Sample III.** Manchester Business School Staff (Officers, Lecturers,

Secretary Staff), **Sample IV.** University of Manchester Students, **Sample V.** Staff working in the several shops, banks, restaurants, etc. in Manchester.

As a result 55 (55 % response rate) questionnaires were returned, which was sufficient to try the Factor Analysis, which is accepted as an appropriate analysis for this type of research. The minimum number of observations required to run factor analysis is stated as 50 by Hair et.al. (1995). Although the number of observations was not enough to derive valuable results from the factor analysis, it has been understood that this analysis was suitable to the purposes and the medium of the main empirical research.

5.4.1. Limitations

- One of the main limitations of the pilot study was time. But in such a limited time, the pilot study was ended up with quite useful results for the modification of the questionnaire..
- One of the most important difficulties of the questionnaire survey was to convince consumers to participate. Each questionnaire was distributed by the researcher to each sample on face-to-face basis in order to convince them and obtain a reasonable response rate.
- The questionnaires were found to be too long by the respondents, which was an expected outcome by the researcher. Although it was known that questionnaire was too long, the pilot study was a good opportunity to carry out a pre-test and develop a better questionnaire. Therefore it has been asked as many questions as possible in order to find the best questions suitable for the purpose of

this research. But, it is accepted that it was one of the major limitations the research faced with, because many respondents were irritated by just glancing at the number of pages.

5.5. Field Work

After receiving supportive feedback from the pilot study, the corrections on the questionnaire and the methodology have been edited. At the beginning of June 1996, the final version of the questionnaire has been prepared and the fieldwork has been realised in the same month.

5.5.1. Sampling Procedure

The survey was conducted in Greater Manchester area, Manchester, UK. The questionnaire was delivered to 1000 households in the Greater Manchester area. No structured sampling method was employed to select households as the researchers had no way of predicting the structure of the sample universe for time attitudes. However, a range of different housing types were selected taking into account the residential types in the ACORN (A Classification Of Residential Neighbourhood) geodemographic classification to ensure a wide range of social groups in the sample. ACORN analysis presents thirty-eight types of neighbourhood in the UK. ACORN applies published census statistics and classifies areas of about 150 households into thirty-eight different neighbourhood types. This classification takes into account forty different variables such as demographics, housing and employment characteristics (Crimp, 1990, p.46). Referring to the ACORN

classification different housing types at different residential areas of Manchester were selected to reach to a wide range of different social groups. Eight different residential areas were selected as follows;

- 2 low income- high unemployment area of high-rise apartments and terraced houses.
- 2 high income-low unemployment (or high retirement) area of semi-detached and detached houses.
- 2 middle income area of terraced houses.
- 2 middle income area of semi-detached houses.

In this research, various types of socio-economic levels have been included into the sample. The final demographics analysis of the questionnaires provided us the following residential distribution;

19.4 % Terraced Houses

36.4 % Semi-detached Houses

18.4 % Detached Houses

14.7 % Apartment

1.4 % Bungalow

2.8 % Studio Flat

6.9 % Other

Because of the budgetary and time constraints the total sample size was determined as 1000 households. Especially factor analysis provides better results with large samples. The aim of the researcher was to conduct as much questionnaires as possible. But the identified constraints let to issue and distribute only 1000 questionnaires. The

questionnaires were distributed to members of the households in selected streets, by the researcher. The questionnaire kit contained a questionnaire with a covering letter and a reply paid envelope. By using such a distribution method the researcher avoided sending questionnaires to unreliable or unrealistic addresses. 22 % response rate was achieved by the end of the fieldwork.

5.5.1.1. Sample Demographics

The demographical frequencies about the sample can be found in the Appendix. However, in this section we would like to mention the general characteristics of the sample as referred to the major indicators that represent the demographic characteristics of the sample.

- **58 %** of the total sample are aged between 25 and 45
- **34 %** of the total sample are aged 45 and over
- **78 %** of the sample are women,
- **46 %** are married, **14 %** are cohabitant,
- **60 %** of the sample have high degree of education (first degree and postgraduate),
- **58 %** of the sample are full-time employed, **15 %** are part-time employed,
- **37 %** of the sample live in 3 bedroom houses,
- **41 %** of the sample live in 2-3 person households, whereas **38 %** live in 3-6 person households
- **57 %** of the sample have no child living at home, **36 %** have one or two children living at home,
- **89 %** have a freezer , **33 %** have a dishwasher, **74 %** have a microwave oven .

The full data about demographics can be seen in the following table:

Table 1 Sample Details (%)

Gender :

Male	Female
21.8	78.2

Personal Status:

Single	27.1	**Divorced**	8.3
Married	45.4	**Separated**	3.7
Cohabitant	14.2	**Widow/er**	1.4

Age:

Less than 25	25-45	45 and over
8.3	57.9	33.8

Household size:

1	2-3	3-6
19.6	40.6	38.4

Number of Children at Home:

0	1	2	3	4+
57.9	14.5	20.6	6.1	1.0

Education Level:

16	16-18	Degree	Postgraduate
16.7	23.1	24.5	35.2

Housing Type:

Terraced	Semi	Detached	Bungalow	Studio	Apartment	Other
19.4	36.4	18.4	1.4	2.8	14.7	6.9

Number of Bedrooms:

1	2	3	4	5
13.8	19.5	36.7	19.0	11.0

Occupation:

Full-time paid employment	Part-time paid employment	Retired	Unemployed	Full-time Student	Other
58.0	15.1	7.3	4.6	9.1	5.9

Ownership of:	Freezer	Dishwasher	Microwave
	88.6	33.3	73.5

5.5.2. Analysis Used for the Empirical Data Processing

In the following section, detailed information about the analysis methodology will be provided. There are three main analysis used for the evaluation of the survey results; 1) Factor analysis, 2) Cluster analysis, 3) Discriminant Analysis.

5.5.2.1. Factor Analysis

Factor analysis is particularly useful as a tool for data reduction i.e. question reduction technique, for examining the validity of tests or the measurement characteristics of attitude scales. This analysis was tested during the pilot study in order to evaluate the attitude scale used in the questionnaire. The following diagram clearly demonstrates the factor analysis process:

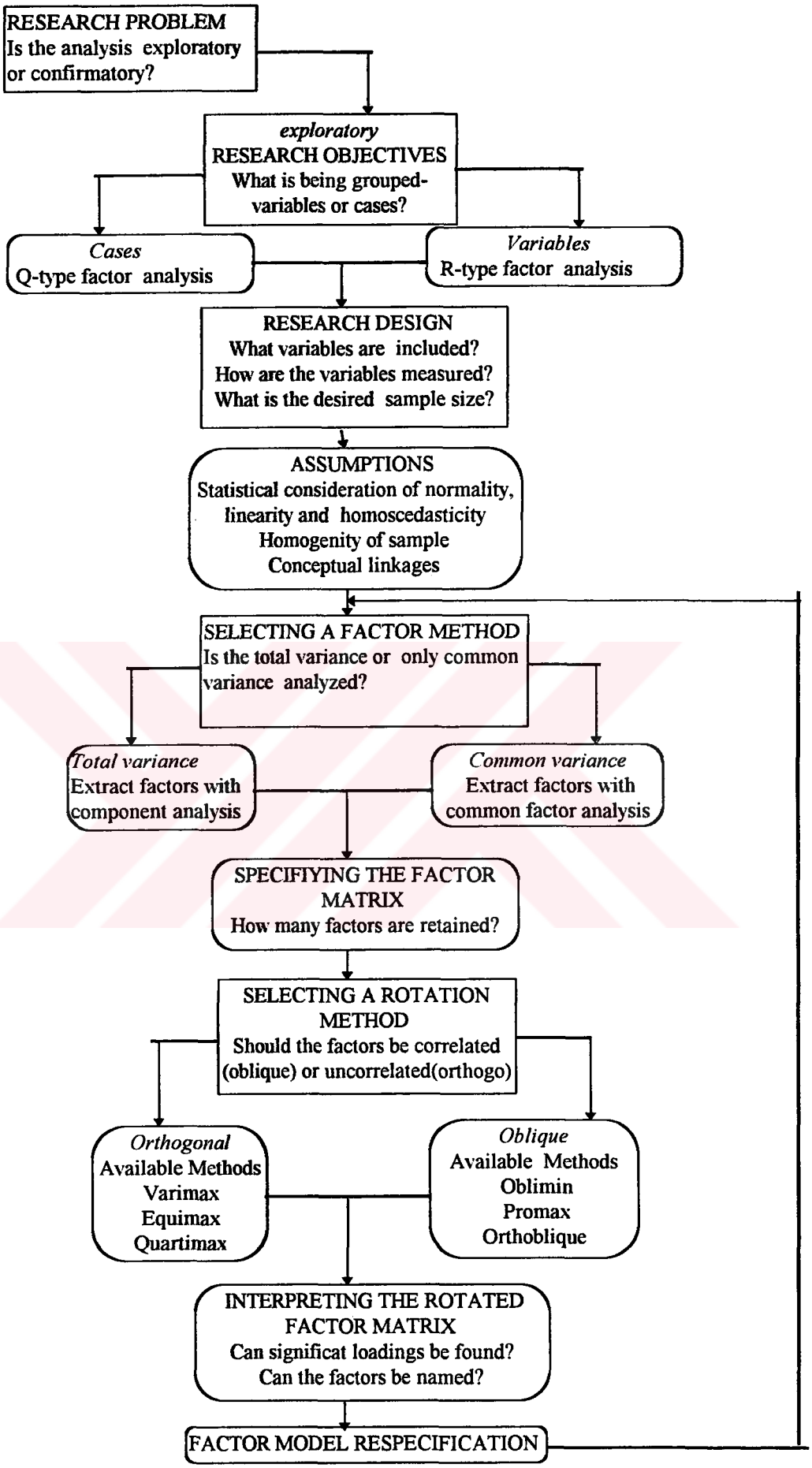


Figure 2. Factor Analysis Decision Diagram
Hair, et al. "Multivariate Data Analysis with Readings" ,1995, p.369-370

The principal objective of factor analysis is to construct a small number of variables (called factors) that convey the information present in a large number of variables. Factor analysis is an interdependence technique in which all variables are simultaneously considered, each related to all others. Although not a dependence technique, the factor analysis still employs the concept of the variate, the linear composite of the variables (Hair, et al, 1995, p.367). Computationally, factor analysis is a complex statistical procedure impractical to be done without a computer. During the analysis SPSS statistical package programme was used in order to carry out these computations. Factor analysis considers the correlation between every pair of items on a scale. The correlation coefficients between the pairs would be analysed to determine whether the items could be grouped in such a way that all items in a group had fairly high correlation with each other. Each of these groups are then called factors. In educational research and evaluation literature, principal component analysis and principal factor analysis appear to be most widely used. After the correlations have been computed both these analyses determine a set of factors called an original solution or an unrotated solution.

Once factors have been selected for further analysis, they are rotated, so that they do a better job of representing the original variables. There are many factor rotation procedures (Varimax, Equimax, and Quartimax). Although they are different in their statistical details, they have identical objectives. All seek to define a set of rotated factors that have high correlation with some of the original variables, and low correlation with all others. As a result the higher the correlation between a variable and a factor, the higher the loading of that variable on the factor (Jaeger, 1990, p.345-352).

It is important to mention that both factor analysis and the cluster analysis are generally considered as an art more than a highly solid scientific approach. An attempt has been made to validate the results by the split-half method which produced the same number of factors and clusters with the main research findings.

5.5.2.2. Cluster Analysis

Cluster analysis was the second major method used during the analysis stage. Cluster analysis is the term for a group of multivariate techniques whose primary purpose is to group objects based on the characteristics they possess. Literally a cluster is a group of contiguous elements of a statistical population e.g. British Consumers in our research (Everitt, 1980, p.59). Cluster analysis classifies objects (e.g., respondents, products, etc.) so that each object is very similar to others in the cluster with respect to some predetermined selection criteria. The resulting clusters of objects should then exhibit high internal (within-cluster) homogeneity and high external (between-cluster) heterogeneity. The cluster variate is the set of variables representing the characteristics used to compare objects in the cluster analysis. The primary goal of cluster analysis is to partition a set of objects into two or more groups based on the similarity of the objects for a set of specified characteristics (cluster variate). Cluster analysis, like factor analysis, is an interdependence method where the relationships between objects and subjects are explored without a dependent variable being identified (Saunders, 1992, p.1). The most traditional use of cluster analysis has been for exploratory purposes (Hair, et al, 1995, p.423). The use of cluster analytic techniques in the marketing field has been in market segmentation where the objective

is to identify homogenous groups of customers within an heterogeneous population (Harrison, 1995, p.3).

Using cluster analysis, the respondents of the survey were classified into two concrete groups. This means that there are two different behaviour groups amongst the respondents. The difference between them can be determined by using the discriminant analysis technique. A brief summary of cluster analysis procedure can be seen from the following diagram:

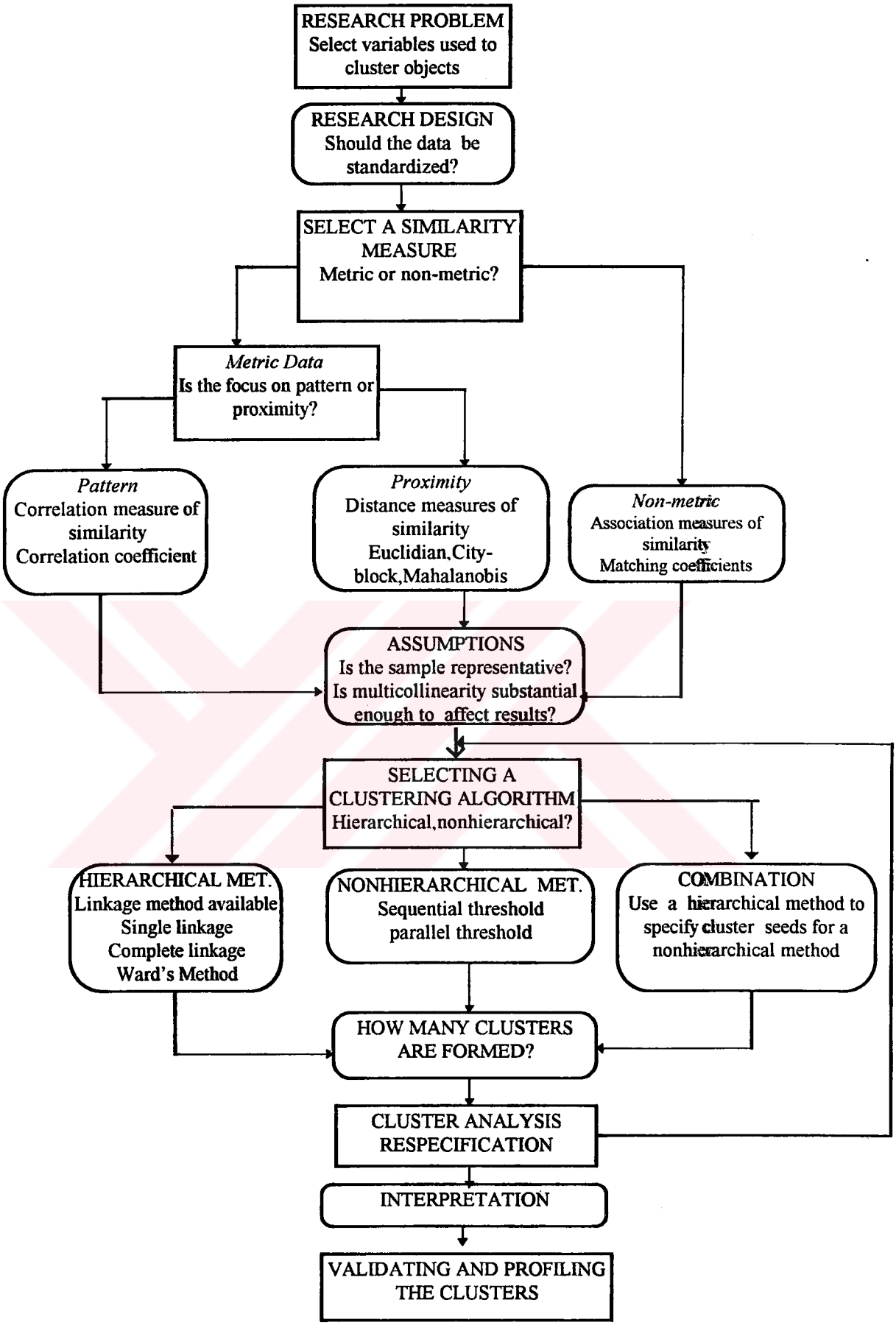


Figure 3. Cluster Analysis Decision Diagram
Hair,et al. "Multivariate Data Analysis with Readings", 1995, p.426-427

5.5.2.3. Multivariate Discriminant Analysis

The last stage of the data analysis was discriminant function analysis, an appropriate statistical technique to distinguish between the variables which differentiate the two or more groups of consumers. It is especially suitable when the dependent variable is categorical (nominal or non-metric) and the independent variables are metric. This analysis involves deriving a variate, the linear combination of the two (or more) independent variables that will discriminate best between a priori defined groups. Discrimination is achieved by setting the variates weights for each variable to maximise the between-group variance relative to the within group variance. The linear combination for this analysis is known as the discriminant function. It is suitable for testing the hypothesis that the group means of a set of independent variables for two or more groups are equal (Hair, et al., 1995, p.181). According to this explanation, the following hypothesis was produced to test by discriminant analysis: "The group means of the 15 demographic variables and the following variables as Future, Past, Event, Duration, Present, Enjoy, Tradition, Modern are equal for two different, specified groups of consumers."

6. Empirical Findings on Food Shopping-Meal Preparation and Time Issues

There are three major groups of empirical findings at the end of the data analysis. The findings of the research will be discussed step by step in the following sections;

6.1. Questionnaire Results

The research questionnaire included 168 statements which were expected to be answered by a 7-point Likert scale ranging from strongly disagree with the statement to strongly agree with the statement. Frequencies and statistics of the results are presented in Table 2.

Table 2. The Frequencies (%) and Statistics of the Questionnaire Results

	Statement	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	Mean	St.Dv
1	I don't like change	15	24	24	14	14	6	4	3,2	1,6
2	I look to the future for success	1	5	8	21	21	24	19	5,0	1,4
3	I like to think about what I am going to do in the future	2	1	7	7	30	27	25	5,4	1,3
4	I have control over my future	5	8	14	13	29	22	8	4,5	1,6
5	I know where I want to go in life and I know how am I going to get there	6	10	15	13	34	15	8	4,3	1,6
6	I like things that happen unplanned	2	9	17	22	26	17	7	4,4	1,4
7	I live for today	9	13	20	21	16	12	9	3,9	1,7
8	Children should be taught well the traditions of the past	2	5	12	19	26	23	14	4,8	1,4
9	The best way to do new tasks well is to rely on what has been done in similar instances in the past	6	12	24	24	25	6	3	3,8	1,4
10	I like to hear my elders talk about the 'old days'	6	5	11	17	26	23	12	4,7	1,6
11	It is important to know one's family history	1	6	6	10	28	27	23	5,2	1,4
12	The future is very uncertain	2	4	9	16	31	23	15	5,0	1,4
13	It is very important to understand what happened in the past	0	2	6	13	38	23	17	5,2	1,2
14	I use a calendar to schedule events well ahead of time	5	10	10	7	26	29	12	4,7	1,7
15	I always seem to be doing things at the last moment	8	22	17	14	22	13	4	3,7	1,6
16	I have been thinking a lot recently about what I am going to do in the future	1	5	10	12	24	21	26	5,2	1,5
17	Half a year seems to me a long time	19	30	24	9	8	5	5	2,9	1,6
18	Time is money	11	14	14	24	17	12	9	3,9	1,7
19	I watch television because it is the cheapest form of entertainment	43	23	13	9	7	2	3	2,3	1,6
20	I often try to do more than one thing at a time	2	7	5	5	29	28	24	5,2	1,5
21	I am always in a rush	3	13	16	17	30	14	6	4,2	1,5
22	Time moves too quickly	1	5	7	15	28	25	20	5,1	1,4
23	Being on time is important	1	1	3	3	20	31	41	5,9	1,1
24	Time is precious	0	1	1	7	19	25	47	6,0	1,1
25	I only watch television on certain occasions	5	9	12	9	17	21	28	4,9	1,8

	Statement	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	Mean	St.Dv
26	Doing nothing is a waste of time	10	9	18	9	11	19	24	4,5	2,0
27	The future is more important than the past to me	2	4	10	26	19	21	18	4,9	1,5
28	I like to look back on what I did in the past	3	5	14	18	31	20	8	4,6	1,4
29	I am constantly looking at my watch	12	20	21	16	19	10	2	3,4	1,6
30	I buy or use many time saving devices	17	18	16	25	16	6	1	3,2	1,5
31	I use a diary to plan ahead	6	10	10	7	24	24	19	4,7	1,8
32	I use a diary to see what I am doing today	12	12	13	6	24	19	14	4,3	1,9
33	I am always looking for ways of saving time	8	13	15	25	18	15	5	4,0	1,6
34	I am mostly concerned about how I feel now in the present	1	6	13	16	35	19	11	4,7	1,3
35	When I watch television, time flies	10	12	20	23	19	8	7	3,8	1,6
36	I feel that events shape my time allocation	1	6	7	21	38	20	7	4,7	1,2
37	Life has a rhythm	1	6	8	25	31	18	9	4,6	1,3
38	I plan on a weekly basis	2	9	14	15	29	21	10	4,6	1,5
39	I plan on a monthly basis	5	17	14	19	22	17	7	4,1	1,6
40	Time can be saved	3	6	4	20	31	25	10	4,8	1,4
41	Everything is changing too fast	6	10	25	29	16	8	6	3,8	1,4
42	I often feel like I am running out of time	3	8	19	17	21	24	8	4,4	1,5
43	It is important to celebrate anniversaries such as birthdays	1	4	3	6	18	28	39	5,7	1,4
44	It is always more important to do things properly than to do things quickly	0	1	6	8	22	31	31	5,6	1,2
45	Other people would say I am slow but sure	21	24	20	17	10	6	4	3,0	1,6
46	I associate things with important events in my life	2	6	7	23	31	21	10	4,7	1,4
47	Meal times as breakfast, lunch, tea-time, evening meal dominate my schedule for the day	20	29	24	10	9	7	2	2,8	1,5
48	It doesn't matter for me how much time an activity takes to finish	11	18	29	15	16	10	2	3,4	1,5
49	I prefer to organise my activities without thinking about how much time they will take	5	16	30	11	22	11	5	3,8	1,5
50	I plan every detail about a party I will give, at least couple of days before	6	9	11	12	27	21	14	4,6	1,7
51	Wearing a watch is not a necessity for me	39	18	13	6	11	5	7	2,7	1,9
52	Family members should come together for Sunday dinner	11	11	11	21	17	18	12	4,2	1,8

Food Shopping and Meal Preparation

1	I always go shopping with a goal	6	5	11	11	22	26	20	4,9	1,7
2	I make a shopping trip only when I need to	5	7	12	6	17	26	27	5,1	1,7
3	Shopping is a recreational activity for me	24	22	16	11	12	12	2	3,1	1,8
4	Food shopping is boring	13	15	20	17	17	11	7	3,7	1,7
5	I spend time selecting the best quality food	4	9	15	12	29	22	9	4,5	1,5
6	Shopping is an activity that the family members enjoy doing together	27	25	20	17	11	6	3	3,0	1,7
7	I really like food shopping	19	14	12	20	17	14	4	3,5	1,8
8	I always make a food shopping list	22	12	11	3	15	23	14	4,0	2,2
9	I always set a budget for food shopping	24	20	18	11	13	8	7	3,1	1,8

	Statement	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	Mean	St.Dv
10	I plan each family meal and buy the food I need specially for that meal	25	19	22	10	14	6	4	3,0	1,7
11	I go shopping for food each time at the same time of the day	49	25	10	3	6	5	2	2,1	1,6
12	I normally shop once a week for food	14	15	14	4	16	22	14	4,1	2,0
13	I am willing to pay more for convenience	13	10	12	12	23	24	6	4,1	1,8
14	I spend time shopping around to save money	13	22	21	9	17	14	5	3,5	1,7
15	Shopping for food is too important an activity to hurry	15	17	26	21	12	6	3	3,2	1,5
16	I enjoy cooking	6	4	11	9	27	24	20	5,0	1,6
17	Cooking for the family is important to me because of the nutritional aspects	5	5	11	17	28	21	15	4,7	1,5
18	I always buy or use time-saving foods	18	23	27	10	14	6	1	3,0	1,5
19	I enjoy spending time in the kitchen	6	10	13	17	23	18	12	4,4	1,7
20	I usually cook easy-to-prepare meals	12	17	17	10	28	13	3	3,7	1,7
21	All family members help me in the kitchen	17	21	16	15	15	11	5	3,4	1,8
22	Women should be concerned about the nutritional aspects of food for the family	12	6	7	18	20	19	16	4,4	1,9
23	At home, I cook most of the time	5	10	11	10	16	21	28	4,9	1,8
24	Cooking needs co-operation	10	8	14	24	25	14	5	4,0	1,6
25	I enjoy cooking for my friends or relatives	6	5	9	9	22	25	24	5,0	1,7
26	I do not examine the frozen food shelves in detail	6	11	16	11	19	22	15	4,5	1,8
27	For my guests, I prefer to buy food from specialist stores	7	17	21	21	16	10	7	3,7	1,6
28	I prefer to buy pre-packed cheese from the cheese shelf	13	14	14	12	21	20	7	4,0	1,8
29	I prefer to buy meat from the butcher's counter	9	8	13	19	15	20	17	4,4	1,8
30	The price of frozen food should be lower than fresh food	5	4	8	36	17	14	16	4,6	1,5
31	Men are more likely to buy frozen food than women	5	7	12	37	17	14	7	4,2	1,4
32	The taste of the meal is more important than convenience	0	2	3	12	20	33	30	5,6	1,2
33	I always have something ready to cook in the fridge	9	11	16	11	27	13	12	4,2	1,8
34	Women should cook for their family	37	12	15	21	7	4	3	2,7	1,7
35	The father should be the head of the household	42	11	14	17	9	3	4	2,6	1,7
36	I do not mind spending time to prepare a full meal for my guests	2	4	6	6	23	33	26	5,4	1,4
37	When I am cooking I devote all my attention to it	2	6	16	10	32	20	15	4,8	1,5
38	Cooking is a very creative activity	1	0	4	13	27	33	21	5,4	1,2
39	I feel good when I spend a lot of time making dinner for my family	5	8	16	18	20	19	14	4,5	1,7
40	I am an excellent cook	7	7	15	25	24	14	8	4,2	1,6
41	I prefer meals that can be prepared quickly	3	6	16	18	34	17	6	4,4	1,4
42	I am very fussy about the food I buy	0	8	18	14	30	19	11	4,6	1,4
43	I look for new and different food products to serve my family	3	4	10	15	36	23	9	4,8	1,4
44	Motherhood is the ideal career for most women	37	22	11	19	5	2	3	2,5	1,6
45	At home we usually eat quickly prepared meals rather than more carefully prepared dishes	15	17	22	11	19	11	5	3,5	1,7
46	The main reason we eat out is that it saves cooking and cleaning up time	32	23	17	11	8	5	3	2,6	1,6
47	Meal preparation should take as little time as possible	11	17	25	15	20	7	5	3,5	1,6

	Statement	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7	Mean	StDv
48	I generally buy chilled and frozen food and forget about shopping the rest of the week	25	20	15	12	15	9	4	3,1	1,8
49	For me car ownership influences the quantity bought per shopping visit	5	7	6	11	18	22	31	5,1	1,8
50	Meals should be at set times each day	15	18	19	14	20	10	5	3,5	1,7
51	I save time by buying convenience foods	15	17	22	13	20	10	2	3,4	1,6
52	I save time by buying take-away meals	26	18	24	10	13	9	1	2,9	1,6
53	I use a microwave oven more than a conventional oven	33	22	16	9	11	7	3	2,7	1,7
54	Food shopping is a role I shared with other(s) in this household	18	16	11	7	19	16	13	3,9	2,1
55	Meal planning is a role I share with other(s) in this household	25	19	11	10	18	8	9	3,3	2,0
56	Meal preparation is a role I share with other(s) in this household	22	18	13	9	22	8	8	3,4	1,9
57	I regularly buy frozen foods	16	14	14	9	21	18	9	3,9	1,9

6.2. The Factor Analysis Results

Factor analysis is the main analysis the empirical research bases on. Factor analysis about the time variables provides the following results related to the time issues. Only time orientation part was included to this analysis and the best fit variables are included in the process.

Table 3 Factors Related to Time Variables

Factor 1 Succession (*Event*) **% of Variance 13.3**	**Loading**
I use a calendar to schedule events well ahead of time	.74
I enjoy watching television on certain occasions	.45
I use a diary to plan ahead	.84
I use a diary to see what I am doing today	.72
I plan on a monthly basis	.52
I plan on a weekly basis	.37
I always seem to be doing things at the last moment	-.41

(Table 3 continues)

Factor 2 Past Orientation (*Past*)	
% of Variance 9.0	
I like to hear my elders talk about the 'old days'	.62
It's important to know one's family history	.69
It is very important to understand what happened in the past	.67
I like to look back on what I did in the past	.50
It is important to celebrate anniversaries such as birthdays	.51
It is always more important to do things properly than to do quickly	.38
Family members should come together for Sunday dinner	.53
Children should taught well the traditions of the past	.67
The best way to do new tasks well is to rely on what has been done in similar instances in the past	.36
Factor 3 Future Orientation (*Future*)	
% of Variance 8.2	
I have been thinking a lot recently about what I am going to do in the future.	.53
I look to the future for success	.69
Time is precious	.39
The future is more important than the past to me	.44
I like to think about what I am going to do in the future	.70
I have control over my future	.61
I know where I want to go in life and I know how am I going to get there	.68
Factor 4 Duration (Duration)	
% of Variance 6.0	
Time is money	.42
I often try to do more than one thing at a time	.44
I am always in a rush	.71
I am constantly looking at my watch	.60
I buy or use many time saving devices	.62
I am always looking for ways of saving time	.49
When I watch television time flies	.36
Factor 5 Present Orientation (Present)	
% of Variance 5.4	
I don't like change	.44
I always seem to be doing things at the last moment	-.45
I watch television because it is the cheapest form of entertainment	.53
I often try to do more than one thing at a time	-.44
I am always in a rush	-.35
It is always more important to do things properly than to do quickly	.33
I like things that happened unplanned	.41
Cumulative percentage of variance	**41.8 %**
Kesier-Meyer-Olkin Measure Of sampling adequacy	**.68820**
Barlett Test of Sphericity 2255.4340, Significance	**.00000**

The loadings represented above are the selected high values from the SPSS factor analysis results. The statements (variables) which have higher loadings than .30 have been presented in the tables. Hair et al (1995), in the "guidelines for identifying significant factor loadings based on sample size" showed that sample size 220 requires the minimum of factor loadings between .35 and .40. For some of the factors, some high negative loadings have been selected. Because some of the variables show strong negative correlation to some factors as predicted by the researcher at the beginning of research. Negative sign loading means, negative correlation between the variable and the factor.

Factor 1 Succession

Under this factor, most of the planning and activity organising type of variables have been gathered. All these variables have high factor loadings (e.g. .84, .74, .72) to that factor. People plan their time in order to realise the various tasks effectively. Despite these high loadings this factor has the lowest factor transformation matrix coefficient which is only .61414. According to the variables collected under this factor, we decided to give the label of succession to the factor. In all the analysis we used "event" abbreviation for this factor.

Factor 2 Past Orientation

This factor is one of the strong outcomes of the factor analysis. The variables which are approved by the previous research many times have high factor loading related to the factor in this research as well. In particular variables with high loading can be labelled as the very well established measures of the past orientation concept. This factor is without any doubt a very well defined, clear factor according to the analysis

results. It has a .869 coefficient in factor transformation matrix, which is accepted as a high result. The past orientation factor contains almost all of the variables which are presumed to be included in it. Referring to the previous research, there was no doubt in labelling this factor.

Factor 3 Future Orientation

This factor is another strong outcome of the factor analysis. It was very easy to label this factor as future orientation. Future orientation as past orientation is a very definite concept that can be easily measured by using the appropriate variables. Under the influence of this orientation, people have high level of concern about future and they organise their present lives in order to reach to their future goals, they always live for future. These people try to control their present life in order to be successful in the future. The factor transformation matrix coefficient of this factor is .777, which is also a quite high coefficient.

Factor 4 Duration

The variables under this factor all support the assumptions in this study which are related to the time as duration perception. All the related and proposed variables have been gathered or represented under this factor. Under the influence of this perception, people felt that they are always in rush, and they constantly look at their watches and they intend to use many time saving devices to save time, because they perceive time as strict duration and every hour that passes is important for these people.

Factor 5 Present Orientation

Eventhough the individual factor loading is not very high, the factor itself has a high reliable coefficient (.91530) in the factor transformation matrix.. As a result of this orientation, people always try to do a task properly than quickly, they do not force themselves to do more than one thing at a time to save some time and they take their times to perform the activities. "I like things that happened unplanned" statement can be explained easily under this assumption as well, because the strict schedules and time tables are not important under this orientation, even an unplanned task is more welcomed than highly strict diaries. The variable related to watching television has the highest loading. People with such an orientation of time generally do not mind how much time they spend watching television, because even watching television is an important daily event which enjoys them for the present time.

The factor transformation matrix related to this factor analysis has been found like the following. As it can be seen from the table, factor results have high coefficients (except factor 1) which can be accepted as supportive findings for the factor analysis. The high factor transformation matrix coefficients represents that the factors are definitely supported by totally different variables subject to factor analysis. Except factor1, the factor matrix coefficients for time related factors are high enough to claim such a differentiation of the variables under each factor.

Table 4 Factor Transformation Matrix for Time Factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	**.60933**	.40981	.52997	.42398	-.01196
Factor 2	-.39664	**.86973**	-.08262	-.16082	.23143
Factor 3	-.50367	-.09941	**.77794**	-.16163	-.32422
Factor 4	-.45044	-.03155	-.15771	**.87205**	-.10372
Factor 5	-.12174	-.25446	.28678	.08816	**.91127**

Factor analysis results related to food shopping and meal preparation variables are as follows;

Table 5 Factors Related to FS&MP Variables

Factor 1 Joy of Cooking (*Enjoy*) **% of Variance 16.9**	**Loading**
Shopping for food is too important activity to hurry	.37
I enjoy cooking	.73
Cooking for the family is important to me because of the nutritional aspects	.55
I always buy or use time saving foods	-.55
I enjoy spending time in the kitchen	.70
I usually cook easy to prepare meals	-.68
I enjoy cooking for my friends and relatives	.60
The taste of the meal is important than the convenience	.64
I do not mind spending time to prepare a full meal for my guests	.58
When I am cooking I devote all my attention to it	.57
Cooking is a very creative activity	.60
I feel good when I spend a lot of time making dinner for my family	.68
I am an excellent cook	.56
I really like food shopping	.43
Factor 2 Traditional Role Orientation in Food Shopping and Meal Preparation (*Tradition*) **% of Variance 6.6**	
I always go shopping with a goal	.33
I plan each family meal and buy the food I need especially for that meal	.52
I go to shopping each time at the same time of the day	.38
I spend time shopping around to save money	.50
Shopping for food is too important activity to hurry	.53
Women should be concerned about the nutritional aspects of food for the family	.51
Men are more likely to buy frozen food than women	.43
Women should cook for their family	.58

(Table 5 Continues)

The father should be the head of the household	.64
Motherhood is the ideal career for most women	.57
Meals should be at set times each day	.45
I always make a food shopping list	.35
I always set a budget for food shopping	.51
Factor 3 Modern (Role Sharing) Orientation in Food Shopping and Meal Preparation (*Modern*)	
% of Variance 5.9	
All family members help me in the kitchen	.60
At home I cook most of the time	-.35
Food shopping is a role I share with others in this household	.82
Meal planning is a role I share with others in this household.	.84
Meal preparation is a role I share with others in this household	.84
Shopping is an activity that family members enjoy doing together	.31
I always make a shopping list	.29
Cumulative percentage of variance	**.29.4**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**.79456**
Barlett Test of Sphericity 5038.5797, Significance .00000	

Factor 1 Joy of Cooking

This label was given to these types of factors by Roberts and Wortzel (1979). This factor is one of the strongest factors in the whole study, and it was very easy to name the factor referring both to the previous research and the research assumptions of this study. This factor is very consistent in itself, and there are many high loading to some of the variables related to that factor. This factor contains almost all of the variables related to the joy of cooking. Under this factor cooking is found to be an important and pleasant event which consumers never mind spending time in the kitchen preparing a good meal. Also, the perception of cooking as a recreational activity has been represented under this factor.

Factor 2 Traditional Role Orientation in Food Shopping and Meal Preparation

This factor is loaded with variables related to the traditional family roles, traditional food shopping and meal preparation habits of the traditional consumers, feminine dominant cooking and shopping habits as well as 'cooking is an important event for the nutritional aspects' perception. Loadings particularly related to traditional family roles are quite high within this factor, which why it has been labelled as traditional role orientation.

Factor 3 Modern (Role Sharing) Orientation in Food Shopping and Meal Preparation

Within this factor, most of the responsibility sharing variables in food shopping and meal preparation have been gathered. This approach has been accepted and named as the modern orientation in the household. All family members participate to most of the common responsibilities of the household and there is a well established co-operation between the family members. This kind of co-operation in the kitchen, mostly seen in contemporary and, young families. Both men and women participate in food shopping and meal preparation tasks, which is not so common in traditional families.

The factor transformation matrix related to the food shopping and meal preparation variables factor results is as follows;

Table 6 Factor Transformation Matrix of Food Related Factors

Factors	Factor 1	Factor 2	Factor 3
Factor 1	**.97554**	.17385	.13452
Factor 2	-.15218	**.97574**	-.15738
Factor 3	-.15861	.13306	**.97833**

As can be very clearly seen from the table, three factors related to the food shopping and meal preparation variables have high transformation coefficients. Although the percentage of explained variance is low, these high coefficients and the measure of sampling adequacy value compensate the shortage of the supportive information about factor analysis. According to the scree plot criterion 3 was found as the most suitable number of factors for this data set. But, the low percentage of variance explained still remains as one of the important limitations of the research.

6.2.1. Correlation Patterns of Factors

Before conducting complex analysis related to the factors established, it was necessary to check the bivariate correlation between each factor. Most of the hypotheses were created according to the assumption of the possible relations between these factors. The correlation matrix based on the **factor scores** has been found as follows:

Table 7 Correlation Coefficients of the Factors

Factors	Duration	Enjoy	Future	Modern	Past	Event	Present	Tradition
Duration	1.0000 p=	-.1001 p=.069	.0000 p=.500	-.0444 p=.256	.0000 p=.500	.0000 p=.500	.0000 p=.500	.1390 p=.019
Enjoy	.1001 p=.069	1.000 p=	.1507 p=.013	.0000 p=.500	.1714 p=.005	.0783 p=.123	.01114 p=.433	.0000 p=.500
Future	.0000 p=.500	.1507 p=.013	1.0000 p=	.0109 p=.436	.0000 p=.500	.0000 p=.500	.0000 p=.500	.0263 p=.349
Modern	.0444 p=.256	.0000 p=.500	.0109 p=.436	1.000 p=	.0138 p=.419	.0191 p=.389	.1264 p=.030	.0000 p=.500
Past	.0000 p=.500	.1714 p=.005	.0000 p=.500	.0138 p=419	1.0000 p=	.0000 p=.500	.0000 p=.500	.4344 p=.000
Event	.0000 p=.500	.0783 p=.123	.0000 p=.500	.0191 p=.389	.0000 p=.500	1.0000 p=	.0000 p=.500	-.1401 p=.019
Present	.0000 p=.500	.0114 p=.433	.0000 p=.500	.1264 p=.030	.0000 p=.500	.0000 p=.500	1.0000 p=	.3243 p=.000
Tradition	.1390 p=.019	.0000 p=.500	.0263 p=.349	.0000 p=.500	.4344 p=.000	1401 p=.019	3243 p=.000	1.000 p=

As it is shown on the matrix, there are at least three significant relationships between the various factors. This result is itself a supportive finding for the research propositions and assumptions. It has been found that a strong correlation exists between past orientation and traditional role orientation in food shopping and meal preparation factors. Traditional role orientation also has a strong significant correlation with present orientation. In the following section the cluster and the discriminant analyses on the factors provide the detailed necessary information about the consumers.

6.3. The Cluster Analysis Results

After the factor analysis, which was used in order to reduce the number of variables to a smaller amount of representative variables, it was decided to find meaningful groups of cases (respondents) as the second data reduction process. As there were 221 cases, the best method for this purpose was to use K-means cluster analysis procedure, which is an appropriate method to cluster large number of cases (200 or more) efficiently without requiring substantial computer resources (Norusis, 1992, p.111).

Table 8 Initial Cluster Centres

Clustr	Duration	Enjoy	Future	Modern	Past	Event	Present	Tradition
1	.1543	-1.058	.9301	-1.684	-1.784	-.928	.3522	-1.238
2	-2.817	2.057	-.788	-.131	2.476	1.583	1.862	2.766

After SPSS defined the initial clusters, it was preferable to use the iteration method as well as classification. Current iteration is 4, minimum distance between initial centres is 8.1662. Iteration results are as follows:

Table 9 Iteration Results

Iteration	Change in cluster centre	
	1	2
1	3.0532	3.8052
2	.1272	.5000
3	.2080	.5042
4	.1572	.3015

As soon as iteration finishes SPSS computes the final cluster centres.

Table 10 Final Cluster Centres

Cluster	Duration	Enjoy	Future	Modern	Past	Event	Present	Tradition
1	-.0699	-.1879	-.0417	-.1133	-.4161	.0073	-.3251	-.4800
2	.1185	.3186	.0707	.1920	.7053	.0123	.5511	.8137

The major issue in cluster analysis is how to select the number of the clusters. There are many criteria and guidelines for approaching this problem. Hierarchical clustering procedure has been used to find the differences between clusters at successive steps and when these successive differences between the steps made a sudden jump the process was halted. The two cluster result come out of the hierarchical clustering and this was also supported by the hypothetical conceptualisations about the consumer groups. The following ANOVA table provides information about the relationship between the clusters and the variables.

Table 11 Analysis of Variance

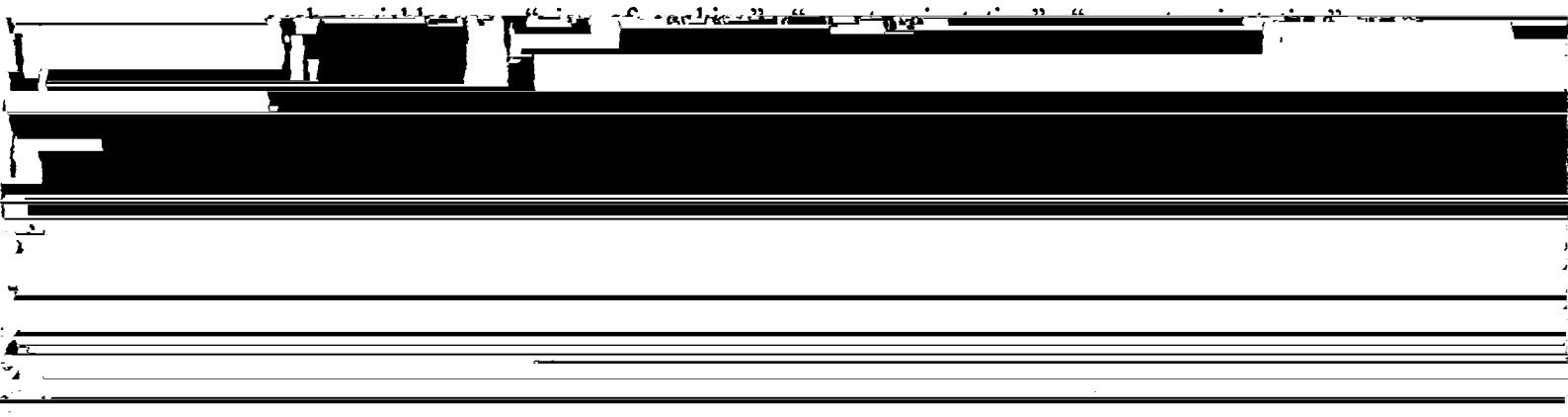
Variable	Clster MS	DF	Error MS	DF	F	Prob.
Duration	1.8313	1	.996	219	1.8383	.177
Enjoy	13.2326	1	.994	219	14.0155	.000
Future	.6521	1	1.001	219	.6511	.421
Modern	4.8069	1	.982	219	4.8919	.028
Past	64.8578	1	.708	219	91.5537	.000
Event	.0198	1	1.004	219	.0197	.888
Present	39.6017	1	.823	219	48.0756	.000
Tradition	86.3190	1	.610	219	141.4102	.000

ANOVA table shows that there are significant differences between the clusters for Enjoy, Modern, Past, Present, Tradition variables (factors). Duration, Future and Plan variables showed no differences between the clusters.

Table 12 Number of Cases in Each Cluster

Cluster	unweighted cases	weighted cases
1	139	139
2	82	82
Valid	221	221

Both hierarchical and non-hierarchical cluster analysis methods showed that, there are two different clusters among the respondents, who can be easily grouped according to



"traditional and modern orientation in food shopping and cooking" variables. In to the the has 3,4, and 5

Using factor analysis, the eight representative variables have been determined, and by cluster analysis the two different groups of respondents have been found according to these eight variables. The next step in the analysis is the discriminant analysis between these clusters in order to understand the importance and effect of each variable on each cluster. Discriminant Analysis is the appropriate tool to see the dimensions of differences between the different groups of objects.

6.4. The Discriminant Analysis Results

Discriminant analysis is an appropriate statistical technique for testing the hypothesis that the group means of a set of independent variables for two or more groups are equal. The first step of the analysis was to determine the dependent and independent variables for the analysis. The dependent variable has to be categorical and the independent variables have to be metric. So the cluster membership variable has been set, this is a categorical variable, as the dependent variable and the independent variables determined as follows;

1. Demographical (age, number of bedrooms, education, gender, household size, number of children, occupation, personal status, housing type)variables
2. Freezer, microwave oven, dishwasher ownership
3. A normal perception (question 58)
4. **Duration** " Duration "
5. **Enjoy** " Joy of Cooking"
6. **Future** "Future Orientation"
7. **Modern** "Modern Orientation in FS&MP"

8. **Past** "Past Orientation"

9. **Present** "Present Orientation"

10. **Event** "Succession"

11. **Tradition** "Traditional Orientation in FS&MP

6.4.1.The Analysis of Demographical Variables

Within this part , the first 3 original variables which was not used in the cluster analysis have been included in the first discriminant analysis. The following table represents the results of the initial analysis.

Table 13 Wilks' Lambda and Univariate F-ratios

Variable	W. Lambda	F	Significance
Age	,99604	,7389	,3911
Bedrooms	,99991	,0170	,8963
Dishwasher	,99040	1,8023	,1811
Education	,99089	1,7098	,1926
Freezer	,99466	,9981	,3191
Gender	1,00000	,0000	,9968
Hshsize	,99841	,2963	,5869
Microwave	,99585	,7732	,3804
No Children	,99638	,6758	,4121
Occupation	,99983	,0316	,8591
Perception	**,95604**	**8,5533**	**,0039**
Per.status	,99924	,1407	,7080
Housingtype	,99984	,0289	,8651

As it is obvious on the table, none of the demographical variables were found to be significant to discriminate between the clusters. Only a normal day perception variable

(Question 58) was found as significant within this analysis. The interpretation of this findings is placed under the cluster identification.

6.4.2. The Stepwise Method

As a second step of discriminant analysis, eight variables (between 4 and 11) were included in the analysis in order to determine which variables are the most efficient in discriminating between respondents. This part of the analysis uses the same variables by which clusters were formed, so, it both validates and elaborates upon the cluster analysis results. For the analysis of these eight perception, orientation and attitude variables, a stepwise procedure was used. If the objective had simply been to determine the discriminating capabilities of the entire set of variables, with no regard to the impact of any individual variable sought, all the variables would have been entered into the model simultaneously (Hair, et al, 1995, p.213). The Wilks' Lambda measure has been used in the stepwise procedure. Also, Mahalanobis D^2 measure has been used to test the results and exactly the same outcomes have been gathered.

In the stepwise method, the first variable included in the analysis has the largest acceptable value for the selection criterion. After the first variable is entered, the value of the criterion is re-evaluated for all variables not included in the model, and the variable with the largest acceptable criterion value is entered next. Variable selection terminates when no more variables meet entry or removal criteria. Each entry or removal of a variable is considered a step and the maximum number of steps permitted is twice the number of independent variables(Norusis, 1992, p.21).

Tradition variable has the smallest Wilks' Lambda and correspondingly the largest F-to-enter, so it is the first variable entered into the equation.

Table 14 Wilks' Lambda and univariate F-ratio

Variable	Wilks' Lambda	F	Significance
Duration	.99168	1.8383	.1765
Enjoy	.93985	14.0155	.0002
Future	.99704	.6511	.4206
Modern	.97815	4.8919	.0280
Past	.70519	91.5537	.0000
Event	.99991	.0197	.8884
Present	.81999	48.0756	.0000
Traditional	.60764	141.4102	.0000

At step 1, Tradition was included in the analysis,

At step 2, Past was included ,

At step 3, Present was included,

At step 4, Enjoy was included,

At step 5, Modern was included in the analysis and after step 5, when 5 variables have already entered into the equation, SPSS could not find F level or tolerance or VIN sufficient for further computation. So, stepwise analysis was terminated.

The summary table gives the information about the variables and the final Wilks' Lambda and significance is as follows;

Table 15 Summary Table

Step	Action	Vars. in	WilksLambd	Significance
1	Tradition	1	.60764	.0000
2	Past	2	.51721	.0000
3	Present	3	.43457	.0000
4	Enjoy	4	.40261	.0000
5	Modern	5	.39133	.0000

For the classification of function coefficients, Fisher's linear discriminant function has been used. Coefficients are found as follows:

Table 16 Classification Function Coefficients (Fisher's Linear Discriminant Functions)

QCL 1	1	2
Enjoy	-.3573120	.6056874
Modern	-.2090628	.3543869
Past	-.6677346	1.1318916
Present	-.5528087	.9370781
Tradition	-.7517316	1.2742767
(Constant)	1.1477731	1.9994867

The table above provides information related to the discriminant function coefficients of variables for two clusters. The traditional approach to interpreting discriminant functions examines the sign and magnitude of the standardised discriminant coefficient assigned to each variable in computing the discriminant function. When the sign is ignored, each weight represents the relative contribution of its associated variable to that function. Variables with relatively larger weights contribute more to the

discriminating power of the function than do variables with smaller weights (Hair, et.al, p.206). According to the coefficients for cluster 2, traditional role orientation, past and present orientations have high and positive correlations with the discriminant function whereas for cluster 1 all of the given variables were found as correlated negatively. This means that traditional role orientation and past orientation variables discriminate most between the clusters.

6.4.3. The Validation of the Discriminant Function

SPSS provides some information about Canonical Discriminant Function which is used for the validation of the findings.

Table 17 Canonical Discriminant Functions

Fcn	Eigenvalue	% of Var.	Canonical Corr.	Wilks' Lambda	Chi-square	df	Sig.
1	**1.5554**	100.00	**.7802**	.391333	203.120	5	**.0000**

Canonical discriminant function results provide the validation of the discriminant results, which are found to be quite high for the data set. A measure of the strength of the association between the discriminant functions and the grouping variables is the canonical correlation coefficient. Its square is the proportion of the variability in the discriminant function scores explained by the independent variables. For our data set, canonical coefficient is .7802 which is a quite strong finding.

Eigenvalue is another criterion that can be used to determine the validity of the analysis. It is the ratio of the between-groups sum of squares to the within-groups sum of squares, while the square of the canonical correlation is the ratio of the between-

groups sums of square to the total sum of squares. The eigenvalue of the discriminant function is 1.5554, which can be accepted as a large eigenvalue exceeding 1, and large eigenvalues are associated with "good" functions. Thus , about 61% (0.78^2 = 0.61) of the variability in the discriminant scores is attributable to between-group differences.

As there are two groups, Wilks' Lambda can be interpreted as a measure of the proportion of total variability not explained by group differences. It is 0.391 according to our results. The lower the value the better the analysis results.

The raw coefficients are the multipliers of the dependent variables in their original units, while the standardised coefficients are the multipliers of the dependent variables when the latter have been standardised to a mean of 0 and standard deviation of 1.

6.4.4. Interpretation of the Standardised Discriminant Function Coefficients.

The standardised canonical discriminant function coefficients are as follows:

Table 18 Standardised Canonical Disc. Func. Coeff.

	Function 1
Enjoy	.36410
Modern	.21733
Past	.58939
Present	.52617
Tradition	.61593

The interpretation of the coefficients is similar to that in multiple regression. Since the variables are correlated, it is not possible to assess the importance of an individual variable. The value of the coefficient for a variable depends on the other variables included in the function. However, variables with large coefficients are thought to contribute more to the overall discriminant function. It is more acceptable to use the standardised functions for such an interpretation.

By examining the structure matrix, the contribution of a variable to the discriminant function can be assessed by examining the correlation between the values of the function and the value of the variable. The pooled within-group correlation table for our variables in the function are as follows. The correlation coefficients for the discriminant scores and each dependent variable, sometimes also called as structure coefficients.

Table 19 Structure Matrix

Pooled within-groups correlations between discriminating variables and canonical disc. functions (Variables ordered by size of correlation within function)

	Function 1
Tradition	.64432
Past	.51844
Present	.37568
Enjoy	.20285
Modern	.11984
Event	-.06526
Duration	.05154
Future	.01189

Canonical discriminant functions evaluated at group means (group centroids) are as follows;

Group 1	**Function 1**
1	-.95355
2	1.61638

Group centroids can be used to interpret the discriminant function results from a global perspective. The group centroid is -.95355 for cluster 1 and 1.61638 for cluster 2. From these results, the definite difference of the clusters can be easily concluded.

The final information provided by SPSS are the classification results about the groups and predicted group memberships which was found to be as follows. This result is an important criterion in discriminant analysis.

Table 20 Classification Results

Actual Group	No. of Cases	Predicted Group Membership	
		1	2
Group 1	139	**131**	**8**
		94.2%	5.8%
Group 2	82	**0**	**82**
		.0%	100.0%
Percentage of "grouped" cases correctly classified: **96.38 %**			

The percentage of cases classified correctly by the discriminant function is an inflated estimate of the true performance in the population, just as R^2 in regression analysis. It is one indicator of the effectiveness of the discriminant function (Norusis, 1992, p.14). In the analysis there was a high percentage of grouped cases (96.38), which can be accepted as another good criterion to validate the results. There is no misclassification for group 2, 100 % of the whole group is successfully classified in the appropriate group. There is only 5.8% of misclassification in group 1, which stands for only 8 respondents. Total misclassification of the analysis (3.62 %) can easily be named as very low with 96.38% of grouped cases correctly classified. As the group sizes are unequal the proportional chance criterion was used in order to

identify the group members correctly. The proportional chance criterion of the segments was found as 53 %. Therefore, in this instance, a prediction accuracy of 96.38 % would be very acceptable because it is above the 53 % proportional chance criterion.

As a result of cluster and discriminant analysis, traditional (role) orientation in FS&MP variable, past orientation, present orientation and joy of cooking factors contribute more to the discrimination of the two groups of consumers. In conclusion, consumers can be basically classified into two groups. One group has a strong attitude towards traditional orientation in FS&MP and joy of cooking as well as past orientation at the same time. The other group behaves totally different than the first group . These groups can be differentiated according to the variables determined by the discriminant function analysis. In order to reach a better understanding about the difference between the groups, we have defined the clusters according to the variables related to them.

6.4.5. Identification of the Clusters

At the end of the analysis process, it is found that there are two different group of consumers according to their time and food shopping and meal preparation attitudes. The two discriminated clusters are specified by various characteristics and identified as follows:

Cluster 1

Consumers in this cluster can be defined as modern oriented, more likely to accept change, and not really enjoying food shopping and cooking. They do not think that food shopping and cooking is such an important activity. They have strong objection to the traditional role definitions in the family for example the father being the head of the household. They do not perceive food shopping and meal preparation as important events that affect their lives.

Cluster 2

Consumers represented in this group have a strong perception of food shopping and meal preparation as important events, requiring time to be done properly. These consumers generally enjoy cooking, they are fussy about the food they buy for their families, they do not try to save time by buying convenience food, they pay full attention to their meal preparation.

This group of consumers also present a particularly homogenous time attitude, especially in time orientation aspects. They are definitely past oriented but also they believe that being on time is important and they also present some attitude according to present orientation. They strongly believe that it is important to know one's family history and it is helpful to learn the way the parents used to prepare food. They agree that children should be taught well, the traditions of the past. They are more likely to do things properly than to do them quickly. They definitely believe that the family members should come together for Sunday dinner.

One of the interesting findings of both the discriminant analysis and the chi-square tests is that **there are no discriminating demographic variables between the clusters**. This means that it is nearly impossible to segment these two clusters according to demographic aspects. None of the personal data was sufficient to explain the difference between these differently behaving groups.

These two groups responded differently to the question related to their perception of a normal day of their life. Cluster 1 consumers have defined their normal day as a day full of deadlines and appointments and duties to realise. They like to have busy lives. If they cannot complete these duties they will feel uncomfortable or distributed.

On the other hand, cluster 2 consumers prefer to be involved in unplanned activities. They generally know what to do during the day but they do not set strict schedules to finish these activities. They are more likely to behave free-of-schedule. The activity or the duty itself (e.g. cooking, shopping) is important for these people. This finding is quite compatible with the main results of the research.

7. Conclusion

Within this study, it was interesting to find significant relationships between those various variables which were related to time and FS&MP issues. As there were many different , involved concepts and variables in the research, it is quite difficult to make just one conclusion for the whole study. Therefore, it is proposed that some of the important findings of the study are highlighted as follows;

- As Roberts and Wortzel showed in their Hierarchy of Effects Model, a strong relationship between the family role orientations and food shopping/meal preparation attitude of the consumers was found in this study. It is obvious that, food shopping and cooking issues are definitely related to the family role orientations of the consumers.

- Factor analysis has revealed five time related and three food related factors. From the very beginning, it was assumed that there are three time orientation and two time perception dimensions. These have been labelled the time related factors as past orientation, present orientation, future orientation, time as succession, time as duration perceptions. Present orientation is found to be the weakest loaded factor, related to the time issues.

- Food related factors are found as joy of cooking, traditional role orientation and modern role orientation in food shopping and meal preparation issues. The **time saving attitude in FS&MP** which was one of the strong assumptions at the beginning of the study could not be found as a result of the research. According to

the assumptions, this factor could be come out as a result of time-pressure on consumers, which is also directly related to time as duration perception factor. This attitude is thought to be the opposite behaviour to the 'joy of cooking' factor. But surprisingly, time saving attitude in FS&MP did not urge out survey results. Family role orientations were found to be more dominant factors in FS&MP attitudes in the households. This was found to be one of the important discriminant factors between the two main consumer groups. Traditional role orientation was especially found to be a strong factor for the British consumers. Related to this approach, the father is the head of the household, motherhood is the ideal career for women and, women should be concerned about the nutritional aspects of the food for the family. The joy of cooking factor is one of the strongest factor among the whole factors.

- The time orientations of consumers definitely affect their food shopping and meal preparation attitudes. In the study it was found that there was a strong relationship between ***past orientation*** and ***traditional role orientation in food shopping and cooking*** attitudes of the consumers. Consumers with strong past orientation prefer to do the food shopping and cooking tasks in the traditional way, which demands spending a lot of time buying the best quality and freshest food and cooking high nutritional value food for family members. Past orientation was the strongest time issue related to food shopping and meal preparation attitude.

- One of the important findings of the research is that **there are no discriminating demographic variables between the two disparate clusters.**

This means that it is nearly impossible to segment these two clusters according to demographic aspects. None of the personal data was sufficient to explain the difference between these differently behaving groups. Briefly, consumers within the same demographic group can definitely behave different than each other.

- Another significant relationship has been found between present orientation and traditional role orientation in food shopping and meal preparation. This means that consumers who have present time orientation seem to prefer the traditional roles in the family related to FS&MP tasks. Traditional orientation accepts that motherhood is the ideal career for women, the father is the head of the household, women should be concerned about the food for the family, it is acceptable to spend time shopping around in order to save money.

- A significant relationship has been found between **past orientation** and **joy of cooking factors**. Past oriented consumers mostly enjoy spending time in the kitchen, they enjoy cooking, they do not mind spending time preparing a full meal for their guests, they devote all their attention to cooking, they believe that the taste of the meal is more important than the convenience and, they feel really good when they spend a lot of time cooking for their families. Past oriented consumers generally do not feel the pressure of time, the attempts to reach to the future purposes does not make that much sense for them. These consumers likely to remember and live in the past. They think the best way to do new tasks is to rely on what has been done in similar instances in the past. So, presumably these consumers have exactly the same cooking attitudes as their mothers or grandmothers.

- It was found that traditional role orientation was one of the strongest attitudes in FS&MP. According to Dorian and Tucci (1992) traditional oriented consumers even though they are time-pressured, do not generally prefer convenience food. They state that in attempting to adhere to their traditionally prescribed roles, women in particular try to accomplish house-wife tasks with minimal reliance on convenience food and for these women the use of such food would indicate a lack of ability to manage her set of roles effectively. This explanation supports the findings of this research. Traditional orientation has been found to be a very strong factor which can be explained by the strong traditional culture of British society.

- Explaining food shopping and meal preparation attitude of consumers is not an easy task and demands a multivariate approach. In the study, an attempt was made to use time perception and time orientation variables to explain FS&MP attitudes and, some of the findings can throw light on consumer behaviour related to time issues in FS&MP. Although this study is based on just one culture, evidence can be seen of some of the probable relationships between time and FS&MP issues.

- According to the cluster analysis results, it was possible to classify consumers into two main groups which can be differentiated by joy of cooking, past orientation, present orientation, traditional and modern role orientations in FS&MP. One group showed strong tendency to past orientation companied with present orientation, traditional orientation in FS&MP, joy of cooking variables while the

other group demonstrates a totally opposite attitude. This group does not enjoy cooking at all.

- The findings presented above provide a base for a consumer segmentation process for marketing practitioners. British consumers have been influenced by a strong traditional culture. This influence can be seen in both their food shopping and meal preparation attitudes. Another important determinant of this attitude is the time factor itself. In the UK working hours are quite flexible and short. At 5 p.m. most working people finish work, so there is plenty of time to prepare a full meal for their family and themselves. Furthermore, part time jobs are quite popular and acceptable for most of the women in the UK. As a result of flexible working hours, consumers can easily find enough time to shop and cook good food in keeping with their traditional role orientation.

8. Contribution of the Study

There are two dimensions to the contribution of this research to marketing, and consumer behaviour, these are; a theoretical and a practical contribution. This particular research aims to provide a theoretical discussion basis to the possible relationship between "time perception" and " the food shopping- meal preparation attitudes" of the consumer, by using empirical evidence.

In the literature, there is reference to research carried out on the concept of "time perception" (Fraisse 1984, Graham 1981, etc.) and there is also a large amount research on food shopping behaviour of consumers. But, few studies on time perceptions as an effect on food preparation styles exist. This research can fill specific gap in time studies and consumer behaviour research. Fraisse states that there are two concepts of time perception ; 1) time as duration, and 2) time as succession. With the empirical work, this research has attempted to confirm that these concepts can be clearly measured or defined by using attitude scales in a questionnaire survey.

Time issues interact with consumer behaviour in several ways. Consumers invest large quantities of time in shopping. An expenditure of time is involved each time a product is used, and the consumer's perception of that time may influence both the product choice and the way it is used. Time is a potentially valuable dimension in understanding the variation in behaviour patterns among consumers, since they may choose different products to perform similar functions. Identification and analysis of the time dimensions encourages the development of new forms of market

segmentation to match market resources with the direct needs, including time, of specific groups of consumers"(Schary, 1971, p.50). As a result of this study, Bergaada's argument on different time orientations has been confirmed , and it has been found that at least the concepts of past and future orientations can be supported strongly by the empirical evidence.

Consumers select products based on two factors: (1) The valuation of time and money, and (2) the basic behaviour patterns (i.e. life-style, time-style) of the individual. Under certain conditions, time can be the deciding factor. Schary states that objective time might be substantially less important in determining time allocation than the consumer's perception of time duration. Perception might be influenced first by how the consumer experiences time intervals, second by the consumer's underlying attitude toward the activity and finally a more general viewpoint which influences the consumer's whole attitude towards time allocation. The perceived measurement of time intervals depends less on objective measurement than on perceived indicators of time duration and the attitude towards the activity (Schary, p.53).

There is an obvious relationship between marketing strategies of the firms and the time issues. Marketing strategy appears to be increasingly concerned with two major issues: market segmentation and product development. In both of these areas, time is not only of direct relevance, but it may also become the ultimate factor in deciding between alternative strategies. So, it is inevitable that marketing practitioners will come to understand and define the time issues in consumer behaviour. Time is an implicit part of every market offering. Products are chosen not only because of price,

quality, features, or even the images created through promotional activity, but also because of the potential time expenditures that they entail. Schary asserts that incorporating time as an element of consumer choice could improve the efficiency of the marketing process. Schary provides a very clear explanation of the time issues as follows (p.55)

" The nature of the role of time will depend on the nature of the chosen activities. Some situations may permit a considerable overlapping of activities, whereas in other cases an activity may demand undivided attention. The role of time, and hence its values, may also be determined by the social role of the activity. Further, if one activity is part of a series, it would be useful to know how consumers view the dimensions of the entire activity set. Do consumers look at activities as a total unit or do they consider each step in isolation?".

This particular research can be helpful to the marketing practitioners by throwing light to consumer time and food shopping and meal preparation attitudes of consumers. The results of the research can be used in order to decide on marketing mix to two different group of consumers. The convenience food (as frozen food, pre-cooked and pre-packed foods etc.) marketers can benefit from the results in order to programme their marketing strategies. Especially advertisement and pricing policies can be determined carefully by taking the two different groups of consumers into account.

Within this particular research, we tried to deduce how consumers perceive time and food shopping /meal preparation issues. We found that cooking issues are more likely to be related to the personality and role orientations of the consumers.

8.1. Future Research

The empirical part of this study has been carried out in Manchester, UK. The literature supports that culture is an important determinant in any kind of time issues related to the consumers. One of the best alternatives for suggested further research is the replication of the study in a different culture. Therefore, this research could be done with Turkish consumers who have a totally different cultural and social background from the British consumers. By carrying out such a comparison, the influence of culture on various time issues can be understood and confirmed in a cross-cultural context. There are some hypotheses which still wait to be confirmed or supported by some empirical evidence. One of these hypotheses can be stated as follows; " Eastern and Western cultures perceive time in almost opposite ways". What is the real case for that particular hypothesis? The future studies in this area could answer this kind of research question.

Furthermore, in Turkey time studies are one of the ignored areas in consumer research and marketing literature. This study will be one of the pioneer studies on the importance of time issues in consumer behaviour.

REFERENCES

Ajzen, I., Fishbein, M., (1980), Understanding Attitudes and Predicting Social Behaviour, Prentice Hall, Inc., Englewood Cliffs,USA

Andersson, M., Rafael Cortez, (1994), " Working Women and Household Expenditures for Food Away From Home: A Comparative Study Between the United States and Sweden", Sveriges Lantbruksuniversitet, Working Paper Series, 7, pp.7-19

Arndt, J., S. Gronmo, (1976), " The Time Dimension of Shopping Behaviour: Some Empirical Findings", Advances in Consumer Research, Vol.4, pp.230-235

Arndt, J., S. Gronmo, D.K. Hawes, (1981), " The Use of Time as an Expression of Life-Style: A Cross National Study", Research in Marketing, Vol.5, pp.1-28

Becker, G.S., (1965), " A Theory of the Allocation of Time", The Economic Journal, No:299, Vol.75, pp.493-517

Bellante, D., A.C. Foster, (1984), "Working Wives and Expenditure on Services", Journal of Consumer Research, September, pp.700-707

Bergadaa, M., (1990), " The role of Time in the Action of the Consumer", Journal of Consumer Research, Vol.17, December, pp.289-302

Berry, L.L., (1979), " The Time Buying Consumer", Journal of Retailing, Vol.55, Number 4, Winter

Blaylock, J.R., D.M. Smallwood, (1987), " Intrahousehold Time Allocation: The Case of Grocery Shopping", The Journal of Consumer Affairs, Vol.21, No 2, pp.183-201

Boedeker, M., (1995), "New-type and Traditional Shoppers: A Comparison of Two Major Consumer Groups", International Journal of Retail and Distribution Management, Vol.23, No.3, pp.17-26

Bond,M. J., N.T. Feather, (1988), "Some Correlates of Structure and Purpose in the Use of Time", Journal of Personality and Social Psychology, Vol.55, No.2, pp.321-329

Borda, B., (1988), " Food as a Medium for Preserving Culture", in Food Conservation, Ethnological Studies, pp.101-108, Editors Astri Riddervold, Andreas Ropeid, Prospect Books Ltd., London

Burns, A.C., D.H. Granbois, (1980), " Advancing the Study of Family Purchase Decision Making", Advances in Consumer Research, Vol.7, pp.221-226

Carmon, Z. (1991), "Recent Studies of Time in Consumer Behaviour", Advances in Consumer Research, Vol.18, pp.703-705

Childers, T.L., Akshay R. Rao, (1992), "The Influence of Familial and Peer-based Reference Groups on Consumer Decisions", Journal of Consumer Research, Vol.19, September, pp.198-211

Cox III, E.P., (1975), "Family Purchase Decision Making and the Process of Adjustment", Journal of Marketing Research, Vol.12, pp.189-195

Crimp, M., (1990), Marketing Research Process, Third Edition, Prentice Hall International (UK) Ltd.

Darian, J.C., L. Tucci, (1992), "Convenience-Oriented Food Expenditures of Working Wife Families: Implications for Convenience Food Manufacturers", Journal of Food Products Marketing, Vol.1 (1) , pp.25-36

Davies, G., (1991), "It's About Time", Templeton College, Working Papers, MRP 91/7, pp.1-13

_____, **O. Omer**, (1996), "Time Allocation and Marketing", Time and Society, Vol.5, No;2, (June), pp.253-268

Denton, F., (1994), " The Dynamism of Personal Timestyle: How we Do More in Less Time", Advances in Consumer Research, Vol.21, pp.132-136

Dube-Rioux,L.B. Schmitt, F.Lerclerc, (1989), "Consumers' Reactions to waiting: When Delays Affect the Perception of the Service Quality", Advances in Consumer Research, Vol. 16, Ed. Thomas K. Srull, pp.59-63

The Editors, (1993), "The Future of Households", American Demographics, December, pp.27-40

Engel, J.F., R.D. Blackwell, P.W. Miniard, (1995), Consumer Behaviour, (International) 8th Edition, The Dryden Press, USA

Everitt,B., (1980), Cluster Analysis, Second Edition, Halsted Press, New York, USA

Feinberg, R.A., P. Smith, (1989), "Misperceptions of Time in the Sales Transaction", Advances in Consumer Research , Vol 16, Ed. T. SK. Srull, pp.56-58

Feldman, L.P., J. Hornik, (1981), " The Use of Time : An Integrated Conceptual Model", Journal of Consumer Research, Vol.7, pp.407-419

Ferber, M.A., Bonnie Birnbaum, (1980), " One Job or Two Jobs: The Implications for Young Wives", Journal of Consumer Research, Vol.7, December, pp.263-271

Foote, N.N, (1966), " The Time Dimension and Consumer Behaviour", in On Knowing the Consumer, Joseph W. Newman, ed., New York: John Wiley and Sons, USA, pp.38-46

Fournier, S., D. Antes, G. Beaumier, (1992), "Nine Consumption Lifestyles", Advances in Consumer Research, Vol.19, pp.329-337

Fraisse, P.,(1984), "Perception and Estimation of Time", Ann.Rev.Psychol., 35:1-36

Fram, E.H., J. Axelrod, (1990), " The Distressed Shopper, Millions of Parents don't Enjoy Going to the Mall", American Demographics, October, pp.44-45

Frank, J., V. Wheelock, (1988), " International Trends in food Consumption", British Food Journal, Vol. 90-1, pp.22-29

Galbraith, J.K., (1973), Economics and the Public Purpose, Boston : Houghton Mifflin

Gibbs, p. (1993), " Time as Dimension of Consumption in Financial services", Bournemouth University Working Paper Series, Bournemouth University

Graham, R.J., (1981), " The Role of Perception of Time in Consumer Research", Journal of Consumer Research, Vol.7, March, pp.335-342

Green, R.T., Isabella C.M. Cunningham, (1975), "Feminine Role Perception and Family Purchasing Decisions", Journal of Marketing Research, V.12, August, pp.325-332

Gronmo, S.,(1989), " Concepts of Time : Some Implications for Consumer Research", Advances in Consumer Research, Vol.16, pp.339-345

Gross, B., (1987), " Time Scarcity: Interdisciplinary Perspectives and Implications for Consumer Behaviour", Research in consumer Behaviour, Vol.2, pp.1-54

Gross, B., (1994), "Consumer Responses to Time Pressure: A Qualitative Study with Homeowners in Foreclosure", Advances in Consumer Research, Vol 21, pp.120-125

Gupta, S., M.R. Hagerty, J.G.Myers, (1983), " New Directions in Family Decision Making Research", Advances in Consumer Research, Vol.10, pp.445-450

Hair,Jr,J.F, R.E.Anderson, R.L.Tatham, W.C.Black, (1995), Multivariate Data Analysis with Readings, Fourth Edition, Prentice Hall Inc., Englewood Cliffs, New Jersey

Harrison, T. (1995), "Cluster Analysis for Marketing Experiments: A Review of Theoretical and Practical Considerations", Working Paper Series No. 95/17, The University of Edinburgh, Department of Business Studies

Hawes, D., (1976), " Time Budgets and Consumer Leisure -Time Behaviour", Advances in Consumer Research, Vol.4, pp.221-229

Herrmann, R.O., R.H. Warland, (1990), " Consumer's Use of Recommended Food Buying Practices", The Journal of Consumer Affairs, Vol.24, No 2, pp.307-325

Hirschman, E.C., (1987), " Theoretical Perspectives of Time Use: Implications for Consumer Behaviour Research", Research in Consumer Behaviour, Vol.2, pp.55-81

Holbrook, M.B., Elizabeth Hirschman, (1982), " The Experiential Aspects of Consumption: consumer Fantasies, Feelings, and Fun", Journal of Consumer Research, Vol.9, September, pp.132-139

Holman, R., (1980), " The Imagination of Future: A Hidden Concept in the Study of Consumer Decision Making", Advances in Consumer Research, Vol.8, pp.187-191

Hornik, J., (1982), Situational Effects on the Consumption of Time", Journal of Marketing, Vol.46., Fall, pp.44-55

Hornik, J., (1984), "Subjective vs. Objective Time Measures: A Note on the Perception of Time in Consumer Behaviour", Journal of Consumer Research ,11, June, pp.615-618

Howard, J.A., J.Sheth (1969), "The theory of Buyer Behavior", New York, Wiley

Hunt, J.C., B.F. Kiker, (1981), " The Effect of Fertility on the Time Use of Working Wives", Journal of Consumer Research, Vol.7, March, pp.380-387

Jacoby, J., (1978), " Consumer Research: How Valid and Useful are All Our Consumer Behaviour Research Findings? A State of the Art Review", Journal of Marketing, April, pp.87-95

Jacoby, J., G. J. Szybillo, C.K. Berning, (1976), " Time Consumer Behaviour: An Interdisciplinary Overview", Journal of Consumer Research, Vol.2, pp.320-339

Jaeger, R., (1990), Statistics A Spectator Support, 2nd Ed., Sage Publications, USA

Jenkins, R.L., (1980), "Contributions of theory to the Study of Family Decision Making", Advances in Consumer Research, Vol.7, pp.207-211

Johnson, E.J., J.W. Payne, (1985), " Effort and Accuracy in Choice", Management Science, 31 (April), pp.395-414

Kaynak, E., (1987), " Cross Cultural Food Buying Behaviour", Food Marketing, Vol. 3, No.3, pp.34-49

Kimmel, M.S., (1993), " What do Men Want?", Harvard Business Review, Nov.-Dec., pp.50-63

Knights, D., P. Odih , (1995), " It's About Time! The Significance of Gendered Time for Financial Services Consumption", Time and Society, London, Thousand Oaks,CA and New Delhi, Vol.4(2): 205-231

Ko, G., J.W. Gentry, (1991), "The Development of Time Orientation Measures for Use in cross-cultural Research", Advances in Consumer Research, Vol 18, pp.135-142

Kock, C. (1988), " Preserving Food at Home or Buying it to Hoard? The Organisation of Stockpiling as a means of Cultural Expression", in Food Conservation, Ethnological Studies, pp.128-137, Editors Astri Riddervold, Andreas Ropeid, Prospect Books Ltd. London

Lamb, G., (1993), " A method for Predicting Market Peaks and Beyond", Marketing and Research Today, November, pp.229-239

Lane, R.H, Y.B. Neggers, J.L. Bonner, K.R. Stitt, (1987), "Nutrient Quality of Selected Vegetables Prepared by Conventional and Cook-Freeze Methods", Journal of Food Quality, Vol.9, pp 407-414

Lazer, W., J.E. Smallwood, (1977), " The Changing Demographics of Women", Journal of Marketing, July, pp.14-22

Leclerc,F., B.H. Schmitt, L. Dube, (1995), " Waiting Time and Decision Making: Is Time like Money?", Journal of Consumer Research, Vol. 22, June, pp.110-119

Lee, L.C., Robert Ferber, (1977), "Use of Time as a Determinant of Family Market Behaviour", Journal of Business Research, 5, March pp.75-91

Leuthold, J.H., (1981), "Taxation and the Consumption of Household Time", Journal of Consumer Research, Vol.7., March, pp.388-393

Lewis, D., A. Weigart (1990), " The Structures and Meanings of Social Time", in J. Hassard (ed.), The sociology of Time, London, Macmillan

Lin, X., J.C. Mowen, (1994), " Time Orientation and Consumer Behaviour: Theoretical and Scale Development", American Marketing Association, summer, pp.277-283

Marshall, D.W., (1995), Eating at Home: Meals and Food Choice, University of Edinburgh, Working Paper Series, No. 95/10

McCall, S.H., (1977), " Meet the 'Workwife'", Journal of Marketing, July, pp.55-65

Meeks, C.B., A.L Sweaney, (1993), " Factors Influencing the Use of Microwave Ovens and Video Cassette Recorders", Journal of Consumer Studies and Home Economics, Vol.17, pp.105-115

Mincer, J. (1960), "Labor Supply, Family Income and Consumption", American Economic Review, 50 (2), pp.574-583

Munsinger, G., J.E. Weber, R.W. Hansen, (1975), " Joint Home Purchasing Decisions By Husbands and Wives", Journal of Consumer Research, Vol.1, March, pp.60-66

Murphy, P.E., (1978), " The Effect of Social Class on Brand and Price Consciousness for Supermarket Products", Journal of Retailing, Vol. 54, No.2, Summer, pp.33-42

Murphy, P.E., W.S. Staples, (1979), " A Modernised Family Life Cycle", Journal of Consumer Research, Vol.6, June, pp.12-22

Nickols, S.Y., Karen Fox, (1983), " Buying Time and Saving Time: Strategies for Managing Household Production", Journal of Consumer Research, Vol.10, September, pp.197-208

Norusis, M.J. (1992), SPSS Statistics for Professionals, Release 5, SPSS Inc., Chicago, USA

Omer, O.(1994), " Modelling Temporal Behaviour Among Consumers" Continuing Ph.D. Thesis, Manchester Business School, Manchester, UK

Oropesa, R.S., (1993), " Female Labour Force Participation and Time-saving Household Technology: A Case Study of the microwave from 1978 to 1989", Journal of Consumer Research, Vol.19, March, pp.567-579

Park, C.W., E.S. Iyer, D.C. Smith, (1989), " The Effects of Situational Factors on In-Store Grocery Shopping Behaviour: The Role of Store Environment and Time Available Shopping", Journal of Consumer Research, Vol.15, March, pp.422-433

Qualls, W.J., (1981), "Changing Sex Roles: Its Impact Upon Family Decision Making", Advances in Consumer Research, Vol. 9 , pp.267-270

Polegato, R., J. Zaichkowsky, (1994), " Family Food Shopping: Strategies Used by Husbands and Wives", The Journal of Consumer Affairs, Vol.28, No.2, pp.278-299

Reid, M.G, (1977), " How New is the 'New Home Economics'?", Journal of Consumer Research, Vol,....., pp.181-183

Reilly, M.D., (1982), " Working Wife and Convenience Consumption", Journal of Consumer Research, Vol.8, March, pp.407-418

Reilly, M.D., M. Wallendorf, (1987), " A Comparison of Group Differences in Food Consumption Using Household Refuse", Journal of Consumer Research, Vol. 14, September, pp.289-294

Reynolds, F.D., M.R. Crask,W.D. Wells, (1977), "The |Modern Feminine Life Style", Journal of Marketing, July, pp.38-45

Roberts, M.L., (1984), " Gender Differences and Household Decision Making: Needed Conceptual and Methodological Developments", Advances in Consumer Research, Vol.11, pp.276-278

Roberts, M.L., L. Wortzel, (1979), " New Life-Style determinants of Women's Food Shopping Behaviour", Journal of Marketing, Vol.43, Summer, pp.28-39

Robinson, J.P., (1977), " The 'New Home Economics': Sexist, Unrealistic, or Simply Irrelevant?", Journal of Consumer Research, September, pp.178-184

Robinson, J.P., (1988), " Who is Doing the Housework?", American Demographics, December, pp.57-61

Rubin, R.M.,B.J. Riney, D.J. Molina, (1990), "Expenditure Pattern Differentials Between One-Earner and Dual-Earner Households: 1972-1973 and 1984", Journal of Consumer Research, Vol.17, June, pp.43-52

Saunders, J., (1992), " Cluster Analysis", Loughborough University, Management Research Series, Paper 1992:27, December, UK

Schary, P.B., (1971), " Consumption and Problem of Time", Journal of Marketing, Vol 35. April, pp.50-55

Settle, R.B., (1978), "" Individual Time Orientation and Consumer Life Style", Advances in Consumer Research, Vol.5, pp.315-319

Spiro, R. (1983), "Persuasion in Family Decision Making", Journal of Consumer Research, Vol. 9, March, pp.393-402

Strober, M.H., C.B. Weinberg, (1980), "Strategies Used by Working and Nonworking Wives to Reduce Time Pressure", Journal of Consumer Research, Vol.6, March, pp.338-348

_____, (1977), " Working Wives and Major Family Expenditures", Journal of Consumer Research, September, pp.141-147

Summers, A., (1987), " Strategic Food Marketing in a Turbulent Environment", Food Marketing, Vol 3, No:3, pp. 28-33

Supermarket Business, (1995), " In No Mood to Wait for Food", May, pp.161-166

Thompson, C.J., (1996), " Caring Consumers: Gendered Consumption Meanings and the Juggling Lifestyle", Journal of Consumer Research, Vol.22, March 1996, pp.388-407

Umesh, U.N., K.L Pettit , C.S. Bozman, (1989), "Shopping Model of the Time-Sensitive Consumer", Decision Sciences, Vol.20, pp.715-727

Wilkes, E.R., (1975), " Husband-Wife Influence in Purchase Decisions- A Confirmation and Extension", Journal of Marketing Research, Vol.12, May, pp.224-7

Weinberg, C.B.,R.S. Winer, (1983), " Working Wives and Major Family Expenditures: Replication and Extension", Journal of Consumer Research, Vol.10, pp.259-263

Wheelock, J.V. (1986), " Coping with Change in the Food Business", Food Marketing, Vol: 2, Iss:3, pp.20-45

Wright, P., (1974), " The Harrased Decision Maker: Time Pressures, Distractions, and the Use of Evidence", Journal of applied Psychology, 59 (October), pp.555-561

[MBS2]

APPENDIX

Dear Madam / Sir,

This questionnaire is part of our research on " Time as an Issue in Food Purchase and Meal Preparation". Please complete it if you are responsible for FOOD SHOPPING and MEAL PREPARATION in your household. If you are not, please pass it to the person who is mostly responsible for these issues.

The purpose of the research is to investigate how people spend their time on food shopping and meal preparation in the UK.

The confidentiality of your responses is assured. Thank you for your assistance. If you have any questions about our research please telephone one of us. Your help and contribution within this research is very much appreciated.

Please fill in the questionnaire and return it to us in the REPLY PAID ENVELOPE.

Prof. Gary DAVIES
Supervisor

Jan MADRAN
Doctoral Program
Researcher

If you fill in the questionnaire and send it back to us, we will put your name in a draw. The 10 lucky respondents will each receive a £10 cheque from us !!!

NAME:.....

ADDRESS:.....

.....

* If you wish to remain anonymous just put the name of a charity we can give the money to.

PART I. TIME ORIENTATION

Instructions : Please *read each statement carefully* and *circle the box appropriate* for you corresponding to the following :

(1) *strongly disagree* with the statement;
(2) disagree with the statement;
(3) tend to disagree with the statement;
(4) neutral / no opinion;
(5) tend to agree with the statement;
(6) agree with the statement;
(7) *strongly agree* with the statement;

	Statement	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
1	I don't like change	1	2	3	4	5	6	7
2	I look to the future for success	1	2	3	4	5	6	7
3	I like to think about what I am going to do in the future	1	2	3	4	5	6	7
4	I have control over my future	1	2	3	4	5	6	7
5	I know where I want to go in life and I know how am I going to get there	1	2	3	4	5	6	7
6	I like things that happen unplanned	1	2	3	4	5	6	7
7	I live for today	1	2	3	4	5	6	7
8	Children should be taught well the traditions of the past	1	2	3	4	5	6	7
9	The best way to do new tasks well is to rely on what has been done in similar instances in the past	1	2	3	4	5	6	7
10	I like to hear my elders talk about the 'old days'	1	2	3	4	5	6	7
11	It is important to know one's family history	1	2	3	4	5	6	7
12	The future is very uncertain	1	2	3	4	5	6	7
13	It is very important to understand what happened in the past	1	2	3	4	5	6	7
14	I use a calendar to schedule events well ahead of time	1	2	3	4	5	6	7
15	I always seem to be doing things at the last moment	1	2	3	4	5	6	7
16	I have been thinking a lot recently about what I am going to do in the future	1	2	3	4	5	6	7
17	Half a year seems to me a long time	1	2	3	4	5	6	7
18	Time is money	1	2	3	4	5	6	7
19	I watch television because it is the cheapest form of entertainment	1	2	3	4	5	6	7
20	I often try to do more than one thing at a time	1	2	3	4	5	6	7
21	I am always in a rush	1	2	3	4	5	6	7
22	Time moves too quickly	1	2	3	4	5	6	7
23	Being on time is important	1	2	3	4	5	6	7
24	Time is precious	1	2	3	4	5	6	7
25	I only watch television on certain occasions	1	2	3	4	5	6	7
26	Doing nothing is a waste of time	1	2	3	4	5	6	7
27	The future is more important than the past to me	1	2	3	4	5	6	7
28	I like to look back on what I did in the past	1	2	3	4	5	6	7
29	I am constantly looking at my watch	1	2	3	4	5	6	7
30	I buy or use many time saving devices	1	2	3	4	5	6	7
31	I use a diary to plan ahead	1	2	3	4	5	6	7
32	I use a diary to see what I am doing today	1	2	3	4	5	6	7
33	I am always looking for ways of saving time	1	2	3	4	5	6	7
34	I am mostly concerned about how I feel now in the present	1	2	3	4	5	6	7
35	When I watch television, time flies	1	2	3	4	5	6	7

	Statement	Strongly Disagree						Strongly Agree
		1	2	3	4	5	6	7
36	I feel that events shape my time allocation	1	2	3	4	5	6	7
37	Life has a rhythm	1	2	3	4	5	6	7
38	I plan on a weekly basis	1	2	3	4	5	6	7
39	I plan on a monthly basis	1	2	3	4	5	6	7
40	Time can be saved	1	2	3	4	5	6	7
41	Everything is changing too fast	1	2	3	4	5	6	7
42	I often feel like I am running out of time	1	2	3	4	5	6	7
43	It is important to celebrate anniversaries such as birthdays	1	2	3	4	5	6	7
44	It is always more important to do things properly than to do things quickly	1	2	3	4	5	6	7
45	Other people would say I am slow but sure	1	2	3	4	5	6	7
46	I associate things with important events in my life	1	2	3	4	5	6	7
47	Meal times as breakfast, lunch, tea-time, evening meal dominate my schedule for the day	1	2	3	4	5	6	7
48	It doesn't matter for me how much time an activity takes to finish	1	2	3	4	5	6	7
49	I prefer to organize my activities without thinking about how much time they will take	1	2	3	4	5	6	7
50	I plan every detail about a party I will give, at least couple of days before	1	2	3	4	5	6	7
51	Wearing a watch is not a necessity for me	1	2	3	4	5	6	7
52	Family members should come together for Sunday dinner	1	2	3	4	5	6	7

PART II. FOOD SHOPPING AND MEAL PREPARATION

In this section when we refer to 'shopping' we mean <u>ONLY shopping for FOOD</u>.

1	I always go shopping with a goal	1	2	3	4	5	6	7
2	I make a shopping trip only when I need to	1	2	3	4	5	6	7
3	Shopping is a recreational activity for me	1	2	3	4	5	6	7
4	Food shopping is boring	1	2	3	4	5	6	7
5	I spend time selecting the best quality food	1	2	3	4	5	6	7
6	Shopping is an activity that the family members enjoy doing together	1	2	3	4	5	6	7
7	I really like food shopping	1	2	3	4	5	6	7
8	I always make a food shopping list	1	2	3	4	5	6	7
9	I always set a budget for food shopping	1	2	3	4	5	6	7
10	I plan each family meal and buy the food I need specially for that meal	1	2	3	4	5	6	7
11	I go shopping for food each time at the same time of the day	1	2	3	4	5	6	7
12	I normally shop once a week for food	1	2	3	4	5	6	7
13	I am willing to pay more for convenience	1	2	3	4	5	6	7
14	I spend time shopping around to save money	1	2	3	4	5	6	7
15	Shopping for food is too important an activity to hurry	1	2	3	4	5	6	7
16	I enjoy cooking	1	2	3	4	5	6	7
17	Cooking for the family is important to me because of the nutritional aspects	1	2	3	4	5	6	7
18	I always buy or use time-saving foods	1	2	3	4	5	6	7
19	I enjoy spending time in the kitchen	1	2	3	4	5	6	7
20	I usually cook easy-to-prepare meals	1	2	3	4	5	6	7

	Statement	Strongly Disagree 1	2	3	4	5	6	Strongly Agree 7
21	All family members help me in the kitchen	1	2	3	4	5	6	7
22	Women should be concerned about the nutritional aspects of food for the family	1	2	3	4	5	6	7
23	At home, I cook most of the time	1	2	3	4	5	6	7
24	Cooking needs co-operation	1	2	3	4	5	6	7
25	I enjoy cooking for my friends or relatives	1	2	3	4	5	6	7
26	I do not examine the frozen food shelves in detail	1	2	3	4	5	6	7
27	For my guests, I prefer to buy food from specialist stores	1	2	3	4	5	6	7
28	I prefer to buy pre-packed cheese from the cheese shelf	1	2	3	4	5	6	7
29	I prefer to buy meat from the butcher's counter	1	2	3	4	5	6	7
30	The price of frozen food should be lower than fresh food	1	2	3	4	5	6	7
31	Men are more likely to buy frozen food than women	1	2	3	4	5	6	7
32	The taste of the meal is more important than convenience	1	2	3	4	5	6	7
33	I always have something ready to cook in the fridge	1	2	3	4	5	6	7
34	Women should cook for their family	1	2	3	4	5	6	7
35	The father should be the head of the household	1	2	3	4	5	6	7
36	I do not mind spending time to prepare a full meal for my guests	1	2	3	4	5	6	7
37	When I am cooking I devote all my attention to it	1	2	3	4	5	6	7
38	Cooking is a very creative activity	1	2	3	4	5	6	7
39	I feel good when I spend a lot of time making dinner for my family	1	2	3	4	5	6	7
40	I am an excellent cook	1	2	3	4	5	6	7
41	I prefer meals that can be prepared quickly	1	2	3	4	5	6	7
42	I am very fussy about the food I buy	1	2	3	4	5	6	7
43	I look for new and different food products to serve my family	1	2	3	4	5	6	7
44	Motherhood is the ideal career for most women	1	2	3	4	5	6	7
45	At home we usually eat quickly prepared meals rather than more carefully prepared dishes	1	2	3	4	5	6	7
46	The main reason we eat out is that it saves cooking and cleaning up time	1	2	3	4	5	6	7
47	Meal preparation should take as little time as possible	1	2	3	4	5	6	7
48	I generally buy chilled and frozen food and forget about shopping the rest of the week	1	2	3	4	5	6	7
49	For me car ownership influences the quantity bought per shopping visit	1	2	3	4	5	6	7
50	Meals should be at set times each day	1	2	3	4	5	6	7
51	I save time by buying convenience foods	1	2	3	4	5	6	7
52	I save time by buying take-away meals	1	2	3	4	5	6	7
53	I use a microwave oven more than a conventional oven	1	2	3	4	5	6	7
54	Food shopping is a role I shared with other(s) in this household	1	2	3	4	5	6	7
55	Meal planning is a role I share with other(s) in this household	1	2	3	4	5	6	7
56	Meal preparation is a role I share with other(s) in this household	1	2	3	4	5	6	7
57	I regularly buy frozen foods	1	2	3	4	5	6	7

58. Which one of the following descriptions is most suitable for describing one of your "normal" days ? (Please circle one number only!)

S1. In a normal day I have thought about and have decided what to do and when. I know how long I will take to do things and I will not be late for anything.

S2. In a normal day I have nothing planned but participate in many activities. Time sometimes passes without my being conscious of it and so I could be late for something, but it doesn't matter.

S3. A normal day is busy with tasks to finish and some regular tasks to do. Each task is important in itself, and must be done in the most proper way. I feel bad if I cannot finish most of my tasks at the end of the day.

S4. A normal day is full of deadlines and appointments. I always try to succeed in my duties. Time is very limited and precious actually. I like to live a busy life.

Demographics :

Please circle the number of the most appropriate answer

Gender : 1. Male 2. Female

Personal Status:
1. Single
2. Married
3. Cohabitant
4. Divorced
5. Separated
6. Widow

Age :
1. Less than 25
2. 25-29
3. 30-34
4. 35-39
5. 40-44
6. 45 +

Household Size :
1. 1 only
2. Less than 3
3. 3-6
4. More than 6

Number of children living at home : 0 1 2 3 4 5 +

At what level did you stop your full time education ?

1. ..... At the age of 16 or before
2. ..... 16 -18 at school or college
3. .....First degree or equivalent
4. .....Postgraduate education

Number of bedrooms in your home: ..... (Please write the number)

Housing Type:
1.....Terraced
2.....Semi-detached
3.....Detached
4. .....Bungalow
5. .....Studio Flat
6.....Apartment
7.....Other.....

Your Occupation :
1. ..... Full-time paid employment
2. ..... Full time student
3. ..... Part-time paid employment
4. ..... Retired
5. ..... Unemployed
6. ..... Other, please specify.....

Do you have a freezer in your home? 1. .....Yes 2.....No

Do you have a microwave oven in your home? 1.....Yes 2.....No

Do you have a dishwasher? 1.....Yes 2.....No

Thank you very much for your time.

- - - - - - - - - - - - FACTOR ANALYSIS - - - - - - - - - - - -

Analysis number 1 Replacement of missing values with the mean

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .79456

Bartlett Test of Sphericity = 5085.7238, Significance = .00000

1-tailed Significance of Correlation Matrix:

' . ' is printed for diagonal elements.

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
SHOP1	1.00000	*	1	9.64758	16.9	16.9
SHOP10	1.00000	*	2	3.78196	6.6	23.6
SHOP11	1.00000	*	3	3.33835	5.9	29.4
SHOP12	1.00000	*	4	2.93525	5.1	34.6
SHOP13	1.00000	*	5	2.72551	4.8	39.3
SHOP14	1.00000	*	6	1.97613	3.5	42.8
SHOP15	1.00000	*	7	1.87642	3.3	46.1
SHOP16	1.00000	*	8	1.64262	2.9	49.0
SHOP17	1.00000	*	9	1.48107	2.6	51.6
SHOP18	1.00000	*	10	1.39543	2.4	54.0
SHOP19	1.00000	*	11	1.33962	2.4	56.4
SHOP2	1.00000	*	12	1.21910	2.1	58.5
SHOP20	1.00000	*	13	1.15365	2.0	60.5
SHOP21	1.00000	*	14	1.12715	2.0	62.5
SHOP22	1.00000	*	15	1.06655	1.9	64.4
SHOP23	1.00000	*	16	1.02847	1.8	66.2
SHOP24	1.00000	*	17	.96215	1.7	67.9
SHOP25	1.00000	*	18	.94003	1.6	69.5
SHOP26	1.00000	*	19	.89293	1.6	71.1
SHOP27	1.00000	*	20	.85594	1.5	72.6
SHOP28	1.00000	*	21	.81762	1.4	74.0
SHOP29	1.00000	*	22	.80885	1.4	75.5
SHOP3	1.00000	*	23	.77924	1.4	76.8
SHOP30	1.00000	*	24	.76410	1.3	78.2
SHOP31	1.00000	*	25	.69626	1.2	79.4
SHOP32	1.00000	*	26	.68447	1.2	80.6
SHOP33	1.00000	*	27	.63493	1.1	81.7
SHOP34	1.00000	*	28	.61099	1.1	82.8
SHOP35	1.00000	*	29	.59536	1.0	83.8
SHOP36	1.00000	*	30	.58106	1.0	84.8
SHOP37	1.00000	*	31	.55713	1.0	85.8
SHOP38	1.00000	*	32	.52152	.9	86.7
SHOP39	1.00000	*	33	.49649	.9	87.6
SHOP4	1.00000	*	34	.48921	.9	88.5
SHOP40	1.00000	*	35	.47699	.8	89.3
SHOP41	1.00000	*	36	.45549	.8	90.1
SHOP42	1.00000	*	37	.44177	.8	90.9
SHOP43	1.00000	*	38	.42161	.7	91.6
SHOP44	1.00000	*	39	.40514	.7	92.3
SHOP45	1.00000	*	40	.38352	.7	93.0
SHOP46	1.00000	*	41	.37905	.7	93.7
SHOP47	1.00000	*	42	.33167	.6	94.2
SHOP48	1.00000	*	43	.31146	.5	94.8

- - - - - - - - - - - - FACTOR ANALYSIS - - - - - - - - - - -

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
SHOP49	1.00000	*	44	.29887	.5	95.3
SHOP5	1.00000	*	45	.27845	.5	95.8
SHOP50	1.00000	*	46	.26730	.5	96.3
SHOP51	1.00000	*	47	.26213	.5	96.7
SHOP52	1.00000	*	48	.25967	.5	97.2
SHOP53	1.00000	*	49	.24189	.4	97.6
SHOP54	1.00000	*	50	.22587	.4	98.0
SHOP55	1.00000	*	51	.20664	.4	98.4
SHOP56	1.00000	*	52	.19389	.3	98.7
SHOP57	1.00000	*	53	.18296	.3	99.0
SHOP6	1.00000	*	54	.16470	.3	99.3
SHOP7	1.00000	*	55	.14877	.3	99.6
SHOP8	1.00000	*	56	.12647	.2	99.8
SHOP9	1.00000	*	57	.11255	.2	100.0

- - - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - - -

PC extracted 3 factors.

Factor Matrix:

	Factor 1	Factor 2	Factor 3
SHOP1	.14429	.30337	.08006
SHOP10	.25385	.46268	.22523
SHOP11	-.02114	.37312	.21540
SHOP12	-.02702	.18683	.10047
SHOP13	-.30288	-.16727	-.02302
SHOP14	.25858	.46398	.05643
SHOP15	.48107	.43411	.20642
SHOP16	.70519	-.18758	-.09190
SHOP17	.60684	.14709	.11261
SHOP18	-.53288	.10384	.12572
SHOP19	.67682	-.25488	-.00856
SHOP2	-.10368	-.07890	-.14009
SHOP20	-.67144	.15125	.02547
SHOP21	.10673	-.19719	.57385
SHOP22	.29495	.48448	-.05863
SHOP23	.23215	.06480	-.38107
SHOP24	.10367	.06823	.25968
SHOP25	.56966	-.22607	-.10839
SHOP26	-.00736	-.06270	-.08284
SHOP27	.18543	.13541	-.06379
SHOP28	-.31083	.16542	-.00568
SHOP29	.32849	.15444	.04899
SHOP3	.33708	.03215	.14510
SHOP30	-.06183	.20506	-.03595
SHOP31	.01357	.46202	-.14543
SHOP32	.63924	.01089	-.16635
SHOP33	.31134	.06646	.10494
SHOP34	.02744	.59173	-.02520
SHOP35	-.04556	.66799	-.03008
SHOP36	.54807	-.09294	-.22407
SHOP37	.60213	.12879	-.07033
SHOP38	.60119	-.05736	-.06394
SHOP39	.69731	.05896	-.10088
SHOP4	-.40196	-.10212	-.09234
SHOP40	.55582	-.08714	-.06401
SHOP41	-.58010	.19814	.04264
SHOP42	.48918	.08173	-.07436
SHOP43	.39191	.05566	-.03175
SHOP44	.04373	.57258	.06841

- - - - - - - - - - - FACTOR ANALYSIS - - - - - - - - - - -

	Factor 1	Factor 2	Factor 3
SHOP45	-.67781	.09978	.13953
SHOP46	-.38467	.20571	-.14801
SHOP47	-.63478	.20570	.05512
SHOP48	-.58338	.03802	.11761
SHOP49	-.21961	-.17120	-.12906
SHOP5	.41888	.09185	.02787
SHOP50	.02460	.44425	.06859
SHOP51	-.64433	.10975	.05864
SHOP52	-.50490	.08278	.07040
SHOP53	-.38997	.18384	-.08146
SHOP54	.12150	-.16975	.79868
SHOP55	.15311	-.19340	.81034
SHOP56	.06983	-.23744	.81737
SHOP57	-.42509	-.05257	.21787
SHOP6	.24359	.12641	.31329
SHOP7	.49579	.02578	.22233
SHOP8	.20596	.27999	.32280
SHOP9	.26172	.46123	.12036

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
SHOP1	.11926	*	1	9.64758	16.9	16.9
SHOP10	.32924	*	2	3.78196	6.6	23.6
SHOP11	.18606	*	3	3.33835	5.9	29.4
SHOP12	.04573	*				
SHOP13	.12024	*				
SHOP14	.28532	*				
SHOP15	.46248	*				
SHOP16	.54093	*				
SHOP17	.40257	*				
SHOP18	.31055	*				
SHOP19	.52312	*				
SHOP2	.03660	*				
SHOP20	.47435	*				
SHOP21	.37958	*				
SHOP22	.32515	*				
SHOP23	.20331	*				
SHOP24	.08284	*				
SHOP25	.38738	*				
SHOP26	.01085	*				
SHOP27	.05679	*				
SHOP28	.12401	*				

- - - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - - -

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
SHOP29	.13416	*				
SHOP3	.13571	*				
SHOP30	.04716	*				
SHOP31	.23480	*				
SHOP32	.43642	*				
SHOP33	.11236	*				
SHOP34	.35153	*				
SHOP35	.44920	*				
SHOP36	.35923	*				
SHOP37	.38410	*				
SHOP38	.36881	*				
SHOP39	.49990	*				
SHOP4	.18053	*				
SHOP40	.32063	*				
SHOP41	.37759	*				
SHOP42	.25151	*				
SHOP43	.15770	*				
SHOP44	.33445	*				
SHOP45	.48885	*				
SHOP46	.21219	*				
SHOP47	.44830	*				
SHOP48	.35561	*				
SHOP49	.09420	*				
SHOP5	.18467	*				
SHOP50	.20267	*				
SHOP51	.43065	*				
SHOP52	.26674	*				
SHOP53	.19251	*				
SHOP54	.68147	*				
SHOP55	.71751	*				
SHOP56	.72935	*				
SHOP57	.23093	*				
SHOP6	.17346	*				
SHOP7	.29591	*				
SHOP8	.22502	*				
SHOP9	.29571	*				

VARIMAX rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

VARIMAX converged in 5 iterations.

- - - - - - - - - - - FACTOR ANALYSIS - - - - - - - - - - -

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3
SHOP1	.08190	.33175	.04999
SHOP10	.14151	.52555	.18168
SHOP11	-.11157	.38906	.14917
SHOP12	-.07073	.19096	.06526
SHOP13	-.26636	-.21893	-.03694
SHOP14	.17270	.50518	.01697
SHOP15	.37050	.53467	.19834
SHOP16	.73107	-.07267	.03447
SHOP17	.55175	.26400	.16865
SHOP18	-.55559	.02541	.03497
SHOP19	.70041	-.13217	.12278
SHOP2	-.06692	-.11365	-.13859
SHOP20	-.68207	.03424	-.08921
SHOP21	.04311	-.09750	.60681
SHOP22	.22330	.51620	-.09394
SHOP23	.27705	.05288	-.35179
SHOP24	.04956	.11915	.25726
SHOP25	.60733	-.13598	.00617
SHOP26	.01550	-.07348	-.07216
SHOP27	.17040	.15587	-.05878
SHOP28	-.32750	.10661	-.07340
SHOP29	.28918	.21432	.06781
SHOP3	.30092	.10928	.18224
SHOP30	-.08582	.18455	-.07576
SHOP31	-.03400	.43383	-.21316
SHOP32	.64833	.09962	-.07847
SHOP33	.27696	.13294	.13409
SHOP34	-.05928	.57880	-.11408
SHOP35	-.14133	.63987	-.14068
SHOP36	.58435	-.02522	-.13087
SHOP37	.57896	.22099	-.00808
SHOP38	.60536	.04004	.02734
SHOP39	.68729	.16533	-.01418
SHOP4	-.36194	-.18181	-.12834
SHOP40	.56564	.00309	.02586
SHOP41	-.60283	.09815	-.06750
SHOP42	.47658	.15490	-.01981
SHOP43	.37889	.11822	.01289
SHOP44	-.05533	.57540	-.01730
SHOP45	-.69855	-.00191	.02963
SHOP46	-.38309	.11415	-.22892
SHOP47	-.65930	.09769	-.06383
SHOP48	-.59356	-.04867	.03060

- - - - - - - - - - - FACTOR ANALYSIS - - - - - - - - - - -

	Factor 1	Factor 2	Factor 3
SHOP49	-.16772	-.22240	-.12887
SHOP5	.39024	.16615	.06915
SHOP50	-.05449	.44688	.00049
SHOP51	-.65458	.00288	-.04657
SHOP52	-.51632	.00236	-.01207
SHOP53	-.39549	.10075	-.16108
SHOP54	.01768	-.03824	.82444
SHOP55	.05027	-.05427	.84382
SHOP56	-.02539	-.11078	.84642
SHOP57	-.44125	-.09621	.16424
SHOP6	.16870	.20737	.31937
SHOP7	.44448	.14093	.28015
SHOP8	.10711	.35196	.29945
SHOP9	.16603	.51155	.08037

Factor Transformation Matrix:

	Factor 1	Factor 2	Factor 3
Factor 1	.97554	.17385	.13452
Factor 2	-.15218	.97574	-.15738
Factor 3	-.15861	.13306	.97833

- - - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - - -

Extraction 1 for analysis 1, Principal Components Analysis (PC)

Initial Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
TIM1	1.00000	*	1	4.64000	13.3	13.3
TIM10	1.00000	*	2	3.13564	9.0	22.2
TIM11	1.00000	*	3	2.86051	8.2	30.4
TIM13	1.00000	*	4	2.10559	6.0	36.4
TIM14	1.00000	*	5	1.90327	5.4	41.8
TIM15	1.00000	*	6	1.57628	4.5	46.3
TIM16	1.00000	*	7	1.45167	4.1	50.5
TIM18	1.00000	*	8	1.26438	3.6	54.1
TIM19	1.00000	*	9	1.20973	3.5	57.6
TIM2	1.00000	*	10	1.15012	3.3	60.8
TIM20	1.00000	*	11	1.04570	3.0	63.8
TIM21	1.00000	*	12	.97155	2.8	66.6
TIM24	1.00000	*	13	.90100	2.6	69.2
TIM25	1.00000	*	14	.85017	2.4	71.6
TIM27	1.00000	*	15	.81082	2.3	73.9
TIM28	1.00000	*	16	.76618	2.2	76.1
TIM29	1.00000	*	17	.73133	2.1	78.2
TIM3	1.00000	*	18	.66332	1.9	80.1
TIM30	1.00000	*	19	.62216	1.8	81.9
TIM31	1.00000	*	20	.61466	1.8	83.6
TIM32	1.00000	*	21	.56246	1.6	85.2
TIM33	1.00000	*	22	.54980	1.6	86.8
TIM35	1.00000	*	23	.52514	1.5	88.3
TIM38	1.00000	*	24	.50424	1.4	89.8
TIM39	1.00000	*	25	.47002	1.3	91.1
TIM4	1.00000	*	26	.44033	1.3	92.4
TIM43	1.00000	*	27	.41575	1.2	93.5
TIM44	1.00000	*	28	.38930	1.1	94.7
TIM47	1.00000	*	29	.32336	.9	95.6
TIM48	1.00000	*	30	.31690	.9	96.5
TIM5	1.00000	*	31	.29972	.9	97.3
TIM52	1.00000	*	32	.27579	.8	98.1
TIM6	1.00000	*	33	.26968	.8	98.9
TIM8	1.00000	*	34	.20806	.6	99.5
TIM9	1.00000	*	35	.17538	.5	100.0

PC extracted 5 factors.

- - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - -

Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
TIM1	-.14987	.21353	-.38897	.04934	.29896
TIM10	.30060	.52577	.01469	-.04963	-.15608
TIM11	.26805	.55409	-.03699	-.01034	-.36347
TIM13	.34815	.54024	.03508	-.20508	-.23607
TIM14	.52907	-.18966	-.51494	-.22399	.09468
TIM15	-.18092	-.01955	.32550	.40937	-.32755
TIM16	.28397	.02030	.50353	.02311	-.00354
TIM18	.42084	-.00499	.00662	.22483	.52449
TIM19	-.15784	.33922	-.05145	.06294	.49084
TIM2	.40178	.08789	.59100	-.02797	.10089
TIM20	.35104	-.09072	.00601	.37148	-.42041
TIM21	.29606	-.18989	.09403	.68681	-.23103
TIM24	.50837	.09270	.13064	.03425	.12889
TIM25	.41765	-.10399	-.07778	-.19350	-.25942
TIM27	.15970	-.31143	.38534	.05032	.13322
TIM28	.40829	.42310	-.07818	.04931	.15686
TIM29	.30394	-.20558	-.28733	.44689	.01957
TIM3	.50926	-.01530	.47823	-.17188	.12139
TIM30	.42460	-.25501	-.20671	.39528	.19572
TIM31	.60994	-.33169	-.39089	-.29348	-.08097
TIM32	.51111	-.39006	-.29353	-.20404	-.11934
TIM33	.60841	-.16873	-.04259	.21743	.09172
TIM35	.10850	.17787	.31538	.45026	.14899
TIM38	.49092	-.01376	-.20833	.06792	.03067
TIM39	.58703	-.08749	-.08686	-.16820	-.08096
TIM4	.35707	-.16160	.42904	-.20404	.14961
TIM43	.39257	.31311	-.01742	.10566	-.31444
TIM44	.25500	.41865	.15408	-.18509	.29755
TIM47	.03659	.12566	-.29895	.38463	.23524
TIM48	-.04758	.34114	.24268	.07324	.06723
TIM5	.37373	-.13408	.48628	-.16197	.22158
TIM52	.12814	.53546	-.22522	.22754	.01420
TIM6	-.03851	.08927	.27645	-.00077	-.37807
TIM8	.31411	.56538	-.21390	-.11380	-.10028
TIM9	-.04589	.46248	-.17960	.06460	.13630

- - - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - - -

Final Statistics:

Variable	Communality	*	Factor	Eigenvalue	Pct of Var	Cum Pct
		*				
TIM1	.31117	*	1	4.64000	13.3	13.3
TIM10	.39384	*	2	3.13564	9.0	22.2
TIM11	.51245	*	3	2.86051	8.2	30.4
TIM13	.51209	*	4	2.10559	6.0	36.4
TIM14	.64019	*	5	1.90327	5.4	41.8
TIM15	.41393	*				
TIM16	.33514	*				
TIM18	.50282	*				
TIM19	.38752	*				
TIM2	.52940	*				
TIM20	.44623	*				
TIM21	.65763	*				
TIM24	.30188	*				
TIM25	.29604	*				
TIM27	.29126	*				
TIM28	.37887	*				
TIM29	.41730	*				
TIM3	.53256	*				
TIM30	.48259	*				
TIM31	.72753	*				
TIM32	.55542	*				
TIM33	.45614	*				
TIM35	.36780	*				
TIM38	.29015	*				
TIM39	.39465	*				
TIM4	.40170	*				
TIM43	.36249	*				
TIM44	.38683	*				
TIM47	.30978	*				
TIM48	.18742	*				
TIM5	.46945	*				
TIM52	.40584	*				
TIM6	.22881	*				
TIM8	.48709	*				
TIM9	.27100	*				

- - - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - - -

VARIMAX rotation 1 for extraction 1 in analysis 1 - Kaiser Normalization.

VARIMAX converged in 8 iterations.

Rotated Factor Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
TIM1	-.03873	.08533	-.32171	.03436	.44464
TIM10	.00859	.62029	.09036	-.01652	-.02376
TIM11	.01110	.68825	-.03510	-.01054	-.19312
TIM13	.10130	.67559	.13181	-.14460	-.08437
TIM14	.74634	.08603	-.04205	.15106	.22625
TIM15	-.41095	-.05307	.00045	.20194	-.44884
TIM16	-.09862	.08415	.53588	.05559	-.16758
TIM18	.08995	.02691	.34356	.42046	.44630
TIM19	-.29292	.10857	-.02087	-.01500	.53784
TIM2	-.08739	.15755	.69878	.04520	-.08124
TIM20	.13071	.15962	.01907	.44934	-.44878
TIM21	-.07289	-.01605	.07117	.71943	-.35974
TIM24	.17608	.24209	.39495	.22075	.08692
TIM25	.45365	.16056	.12555	.01476	-.22018
TIM27	-.01214	-.27920	.44040	.11114	-.08275
TIM28	.07904	.50161	.15781	.17453	.25621
TIM29	.20779	-.04475	-.11033	.59980	.01343
TIM3	.13815	.12239	.70511	.00190	-.03624
TIM30	.26210	-.08951	.07907	.61640	.14028
TIM31	.84215	.03020	.06963	.11205	-.00067
TIM32	.72043	-.06380	.07271	.13842	-.08880
TIM33	.34999	.07662	.29526	.48968	.02851
TIM35	-.38423	.11569	.25987	.37221	.02668
TIM38	.37519	.19998	.09733	.30596	.07939
TIM39	.52177	.19902	.25408	.12318	-.05544
TIM4	.13927	-.06850	.61144	-.05671	-.02328
TIM43	.11448	.51161	.06180	.18332	-.22409
TIM44	-.04113	.38343	.33494	-.11929	.33423
TIM47	-.07887	.08201	-.21676	.39978	.30004
TIM48	-.32771	.23365	.14311	-.04446	.05451
TIM5	.08197	-.06307	.67653	-.02029	.02556
TIM52	-.12509	.52982	-.18335	.20430	.18475
TIM6	-.15173	.13061	.07898	-.10937	-.41296
TIM8	.13835	.67083	-.05746	-.03125	.11686
TIM9	-.16663	.36456	-.17335	.00355	.28332

- - - - - - - - - - - F A C T O R A N A L Y S I S - - - - - - - - - - -

Factor Transformation Matrix:

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	.60933	.40981	.52997	.42398	-.01196
Factor 2	-.39664	.86973	-.08262	-.16082	.23143
Factor 3	-.50367	-.09941	.77794	-.16163	-.32422
Factor 4	-.45044	-.03155	-.15771	.87205	-.10372
Factor 5	-.12174	-.25446	.28678	.08816	.91127

!!!!!!!!!!!Iterate and classify!!!!!!!!!!!
CLUSTER ANALYSIS RESULTS

Initial Cluster Centers.

Cluster	DURATION	FUTURE	MODERN	ENJOY
1	.1543	.9301	-1.6847	-1.0584
2	-2.8177	-.7886	-.1313	2.0574

Cluster	PAST	EVENT	PRESENT	TRADITIO
1	-1.7840	-.9289	.3522	-1.2381
2	2.4762	1.5833	1.8626	2.7664

- -

Convergence achieved due to no or small distance change.
The maximum distance by which any center has changed is .1617
Current iteration is 4

Minimum distance between initial centers is 8.1662

Iteration	Change in Cluster Centers 1	2
1	3.0532	3.8052
2	.1272	.5000
3	.2080	.5042
4	.1572	.3015

- -

Final Cluster Centers.

Cluster	DURATION	FUTURE	MODERN	ENJOY
1	-.0699	-.0417	-.1133	-.1879
2	.1185	.0707	.1920	.3186

Cluster	PAST	EVENT	PRESENT	TRADITIO
1	-.4161	.0073	-.3251	-.4800
2	.7053	-.0123	.5511	.8137

- -

Distances between Final Cluster Centers.

Cluster	1	2
1	.0000	
2	2.0242	.0000

- -

* * * * * * * * * * * * Q U I C K C L U S T E R * * * * * * * * * * * *

Analysis of Variance.

Variable	Cluster MS	DF	Error MS	DF	F	Prob
DURATION	1.8313	1	.996	219.0	1.8383	.177
FUTURE	.6521	1	1.001	219.0	.6511	.421
MODERN	4.8069	1	.982	219.0	4.8919	.028
ENJOY	13.2326	1	.944	219.0	14.0155	.000
PAST	64.8578	1	.708	219.0	91.5537	.000
EVENT	.0198	1	1.004	219.0	.0197	.888
PRESENT	39.6017	1	.823	219.0	48.0756	.000
TRADITIO	86.3190	1	.610	219.0	141.4102	.000

- -

Number of Cases in each Cluster.

Cluster	unweighted cases	weighted cases
1	139.0	139.0
2	82.0	82.0
Missing	0	
Valid cases	221.0	221.0

- - - - - - - - - D I S C R I M I N A N T A N A L Y S I S - - - - - - - - -

On groups defined by QCL_1

221 (Unweighted) cases were processed.
0 of these were excluded from the analysis.
221 (Unweighted) cases will be used in the analysis.

Number of cases by group

	Number of cases		
QCL_1	Unweighted	Weighted	Label
1	139	139.0	
2	82	82.0	
Total	221	221.0	

Group means

QCL_1	DURATION	ENJOY	FUTURE	MODERN
1	-.06992	-.18794	-.04172	-.11328
2	.11852	.31859	.07073	.19202
Total	.00000	.00000	.00000	.00000

QCL_1	PAST	EVENT	PRESENT	TRADITIO
1	-.41609	.00728	-.32513	-.48002
2	.70532	-.01233	.55114	.81369
Total	.00000	.00000	.00000	.00000

Group standard deviations

QCL_1	DURATION	ENJOY	FUTURE	MODERN
1	.95850	.97505	.99494	.98957
2	1.06218	.96588	1.01069	.99417
Total	1.00000	1.00000	1.00000	1.00000

QCL_1	PAST	EVENT	PRESENT	TRADITIO
1	.87467	.98359	.96382	.82065
2	.78225	1.03323	.80281	.70922
Total	1.00000	1.00000	1.00000	1.00000

Wilks' Lambda (U-statistic) and univariate F-ratio
with 1 and 219 degrees of freedom

Variable	Wilks' Lambda	F	Significance
DURATION	.99168	1.8383	.1765
ENJOY	.93985	14.0155	.0002
FUTURE	.99704	.6511	.4206
MODERN	.97815	4.8919	.0280
PAST	.70519	91.5537	.0000
EVENT	.99991	.0197	.8884
PRESENT	.81999	48.0756	.0000
TRADITIO	.60764	141.4102	.0000

- - - - - - - - D I S C R I M I N A N T A N A L Y S I S - - - - - - - -

On groups defined by QCL_1

Analysis number 1

Stepwise variable selection
Selection rule: minimize Wilks' Lambda
Maximum number of steps..... 16
Minimum tolerance level..... .00100
Minimum F to enter..... 3.84000
Maximum F to remove..... 2.71000

Canonical Discriminant Functions

Maximum number of functions..... 1
Minimum cumulative percent of variance... 100.00
Maximum significance of Wilks' Lambda.... 1.0000

Prior probability for each group is .50000

---------- Variables not in the Analysis after Step 0 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
DURATION	1.0000000	1.0000000	1.8383185	.9916757
ENJOY	1.0000000	1.0000000	14.0154960	.9398517
FUTURE	1.0000000	1.0000000	.6511060	.9970357
MODERN	1.0000000	1.0000000	4.8919355	.9781505
PAST	1.0000000	1.0000000	91.5537450	.7051919
EVENT	1.0000000	1.0000000	.0197454	.9999098
PRESENT	1.0000000	1.0000000	48.0756408	.8199924
TRADITIO	1.0000000	1.0000000	141.4102274	.6076409

* *

At step 1, TRADITIO was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.60764	1	1	219.0	
Equivalent F	141.41023		1	219.0	.0000

---------- Variables in the Analysis after Step 1 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
TRADITIO	1.0000000	141.4102	

---------- Variables not in the Analysis after Step 1 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
DURATION	.9888857	.9888857	.0063866	.6076231
ENJOY	.9586761	.9586761	23.9498022	.5474926
FUTURE	.9998989	.9998989	.5192261	.6061971
MODERN	.9855764	.9855764	8.1312216	.5857914
EVENT	.9792532	.9792532	38.1167670	.5172083
PLAN	.9703829	.9703829	2.2644038	.6013941
PRESENT	.9931307	.9931307	21.5478941	.5529822

* *

At step 2, PAST was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.51721	2	1	219.0	
Equivalent F	101.74681		2	218.0	.0000

---------- Variables in the Analysis after Step 2 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
PAST	.9792532	38.1168	.6076409
TRADITIO	.9792532	79.2339	.7051919

---------- Variables not in the Analysis after Step 2 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
DURATION	.9832295	.9662213	.2548219	.5166017
ENJOY	.9527303	.9350319	16.5628869	.4805310
FUTURE	.9987318	.9781102	.7360335	.5154599
MODERN	.9815582	.9673895	8.9624003	.4966942
EVENT	.9694061	.9493298	1.4530549	.5137681
PRESENT	.8918820	.8794193	41.2621118	.4345748

* *

At step 3, PRESENT was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.43457	3	1	219.0	
Equivalent F	94.11289		3	217.0	.0000

---------- Variables in the Analysis after Step 3 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
PAST	.8794193	59.1254	.5529822
PRESENT	.8918820	41.2621	.5172083
TRADITIO	.9616295	45.2449	.5251844

---------- Variables not in the Analysis after Step 3 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
DURATION	.9768221	.8710585	.8816151	.4328083
ENJOY	.9481112	.8769783	17.1478270	.4026122
FUTURE	.9973120	.8776840	1.0136494	.4325449
MODERN	.9774014	.8780187	5.5722404	.4236458
EVENT	.9684853	.8780186	.8496840	.4328720

* *

At step 4, ENJOY was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.40261	4	1	219.0	
Equivalent F	80.12411		4	216.0	.0000

---------- Variables in the Analysis after Step 4 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
ENJOY	.9481112	17.1478	.4345748
PAST	.8769783	49.1347	.4941966
PRESENT	.8875578	41.8032	.4805310
TRADITIO	.9222398	53.7590	.5028159

---------- Variables not in the Analysis after Step 4 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
DURATION	.9651721	.8695166	1.8062627	.3992579
FUTURE	.9766508	.8745646	.1588921	.4023149
MODERN	.9744439	.8757766	6.1968197	.3913330
EVENT	.9660702	.8757598	.4726017	.4017291

* *

At step 5, MODERN was included in the analysis.

		Degrees of Freedom		Signif.	Between Groups
Wilks' Lambda	.39133	5	1	219.0	
Equivalent F	66.88084		5	215.0	.0000

---------- Variables in the Analysis after Step 5 ----------

Variable	Tolerance	F to Remove	Wilks' Lambda
ENJOY	.9452422	17.7528	.4236458
MODERN	.9744439	6.1968	.4026122
PAST	.8757766	48.8604	.4802664
PRESENT	.8842332	37.6454	.4598534
TRADITIO	.9074666	56.9953	.4950732

---------- Variables not in the Analysis after Step 5 ----------

Variable	Tolerance	Minimum Tolerance	F to Enter	Wilks' Lambda
DURATION	.9624433	.8679965	2.1146305	.3875039
FUTURE	.9765530	.8734030	.1351258	.3910861
EVENT	.9660626	.8745546	.4479854	.3905155

F level or tolerance or VIN insufficient for further computation.

Summary Table

Step	Action Entered	Removed	Vars in	Wilks' Lambda	Sig.	Label
1	TRADITIO		1	.60764	.0000	REGR factor score 2 for analysis
2	PAST		2	.51721	.0000	REGR factor score 2 for analysis
3	PRESENT		3	.43457	.0000	REGR factor score 5 for analysis
4	ENJOY		4	.40261	.0000	REGR factor score 1 for analysis
5	MODERN		5	.39133	.0000	REGR factor score 3 for analysis

Classification function coefficients
(Fisher's linear discriminant functions)

QCL_1 =	1	2
ENJOY	-.3573120	.6056874
MODERN	-.2090628	.3543869
PAST	-.6677346	1.1318916
PRESENT	-.5528087	.9370781
TRADITIO	-.7517316	1.2742767
(Constant)	-1.1477731	-1.9994867

Canonical Discriminant Functions

Fcn	Eigenvalue	Pct of Variance	Cum Pct	Canonical Corr	After Fcn	Wilks' Lambda	Chi-square	df	Sig
					: 0	.391333	203.120	5	.0000
1*	1.5554	100.00	100.00	.7802	:				

* Marks the 1 canonical discriminant functions remaining in the analysis.

Standardized canonical discriminant function coefficients

	Func 1
ENJOY	.36410
MODERN	.21733
PAST	.58939
PRESENT	.52617
TRADITIO	.61593

Structure matrix:

Pooled within-groups correlations between discriminating variables and canonical discriminant functions
(Variables ordered by size of correlation within function)

	Func 1
TRADITIO	.64432
PAST	.51844
PRESENT	.37568
ENJOY	.20285
MODERN	.11984
EVENT	-.06526
DURATION	-.05154
FUTURE	.01189

Canonical discriminant functions evaluated at group means (group centroids)

Group	Func 1
1	-.95355
2	1.61638

Test of Equality of Group Covariance Matrices Using Box's M

The ranks and natural logarithms of determinants printed are those of the group covariance matrices.

Group Label	Rank	Log Determinant
1	5	-1.082597

2	5	-1.930891
Pooled within-groups covariance matrix	5	-1.321821

Box's M	Approximate F	Degrees of freedom	Significance
16.32179	1.05891	15, 116874.5	.3898

Classification results -

Actual Group		No. of Cases	Predicted Group Membership 1	2
Group	1	139	131 94.2%	8 5.8%
Group	2	82	0 .0%	82 100.0%

Percent of "grouped" cases correctly classified: 96.38%

Classification processing summary

221 (Unweighted) cases were processed.
0 cases were excluded for missing or out-of-range group codes.
0 cases had at least one missing discriminating variable.
221 (Unweighted) cases were used for printed output.

CURRICULUM VITAE
for
CANAN MADRAN

PERSONAL DETAILS

Family Name: MADRAN **First Name** : CANAN

Address :
(Home) Beyazevler Mah. 23 Sokak. Şenyiğit Apt. No: 01330 ADANA/ TURKEY
(Office) University of Çukurova, Faculty of Economics and Administrative Sciences.01330 Beyazevler ADANA/ TURKEY

Tel: (Home) (90) 322 227 52 50 **Fax**: (Office) (90) 322 225 00 88
(Office) (90) 322 225 04 77

e.mail: CMadran@pamuk.cc.cu.edu.tr

Sex: Female

Date/ Place of Birth : 3 May 1967 / Mersin, TURKEY

Nationality : Turkish Republic

Marital Status : Married, One child

EDUCATION

Primary School : 1974-1978 Hayriye K. Kusun Primary School

High School : 1978-1985 Adana Anatolian High School

University : 1985-1989 University of Çukurova, Faculty of Economics and Administrative Sciences, Management Department (Bachelors Diploma, 1989)

Post Graduate Study

MS Degree: 1989-1992 University of Çukurova, Institute of Social Sciences(MS Diploma , 1992)

Ph.D. Study: 1992-..... University of Çukurova, Institute of Social Sciences, Management Department.

PUBLICATIONS

"Duties and Responsibilities of Government, Consumers and Producers for Sustainable Development", Award of Mention, Foreign Investment Co-ordination Association, 1991 Awards, Ankara

"Textile Industry and Environmental Pollution", Maraton - Magazine for Textile and Ready to Wear Technology, V.3-4, Sept/Oct 1991,Adana

"Comparative Marketing Philosophies of USA, Japan, and Turkey in Electronics Sector", Pazarlama Dünyası Dergisi, V.27 May-June1991

"Consumerism and Environmental Protection", Milliyet Newspaper Awards Runner-up, 1992, Research Awards, İstanbul

"Environmental Protection and Marketing", MS Thesis, University of Çukurova, Adana, 1992

" Contradictions in the Application of the Patent Rights, Trademarks, and Copy Rights in the Developed and Developing Countries",Award of Mention, Foreign Investment Co-ordination Association, 1992 Research Awards, İstanbul

"Environmental Protection and Society", ARTI Dergisi, June 1992,V.3

"Sales Promotion War in the Turkish Press", 4th National Management Congress, Eskişehir / Turkey, July 1993

"Facilitating Management of Organisation Change", Ninth World Productivity Congress, Paper, June 1995, İstanbul/ TURKEY

"Change in Turkey and New Trends in Marketing", Pazarlama Dünyası Dergisi, V.49, Jan.-Feb. 1995, pp.19-26

"Time as an Issue in Food Shopping and Meal Preparation", Manchester Business School, Working Paper Series,1996, Manchester/UK

"Time as an Issue in Food Shopping and Meal Preparation", Marketing Education Group Congress, Doctoral Colloquium, July 1996, Glasgow, UK

OCCUPATION

Work Experience: 1989-.....Graduate Research Assistant in Marketing Department, University, Faculty of Economics and Administrative Sciences

INTERESTS

Foreign Language Ability: Good degree of English in writing, speaking and understanding. (Latest TOEFL Score 585)

Fair degree of German in writing, speaking and understanding

Ability to Use Computer: Able to use word processing and statistical package programs

Other Interests: Sports (Basketball, Swimming, Ice-skating), Literature, Theatre

Testimonials Enclosed From:

Mustafa MAZLUM, Ph.D., Uni. of Çukurova, Professor, Faculty Dean

Ünal AY, Ph.D., Uni.of Çukurova, Associate Professor