

ANGLIA RUSKIN UNIVERSITY

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CONSUMER THEORY IN MICROECONOMICS AND MARKETING RESEARCH; AN  
AREA FOR INTERDISCIPLINARY INTEGRATION

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A thesis is partial fulfilment of the requirements of Anglia Ruskin University for the degree  
of Doctor of Philosophy (Ph.D.)

Submitted: January 2019

i. ACKNOWLEDGEMENTS

Undertaking this research study has been a truly life changing experience that it would not have been possible to accomplish without the continuous support and guidance I received throughout this journey.

I would like to say a massive thanks to my brilliant Ph.D. supervisory team, Dr Nektarios Tzempelikos and Dr Nick Drydakis, for all the encouragement and support I received during the last 3 years. Their constructive feedback and structured guidance was very helpful in constantly improving my thesis and understanding every single step of my Ph.D. journey.

I also gratefully acknowledge the continuous funding I received from Anglia Ruskin University, which helped me to focus exclusively on my research study and finish in no later than 3 years.

Last but not least, I would like to deeply thank my husband whose love, understanding, and encouragement are with me in whatever I pursue. This thesis is dedicated to him.

ii. ABSTRACT

The traditional economic theory of choice suggests that consumer behaviour is sufficiently explained in terms of monetary factors only, such as prices, quantities and incomes, and every other factor occurring is considered and treated as exogenous. The current research study suggests that the assumptions that the economic models are based on, lack realism, and as a result, they fail in explaining, predicting and even understanding the consumer's choice. There is need for a broader interdisciplinary approach with more consumer centric subjects, such as Marketing and Consumer Behaviour Research, in order to consolidate both, quantitative and qualitative elements occurring during the decision-making process. In Consumer Behaviour research, the consumer is put in the heart of the analysis striving to provide answers regarding what really motivate them to proceed with a purchase, how the monetary factors are perceived and how the external stimuli are interpreted in mind. The relevance of these motives and their impact on consumer behaviour are tested in a large scale empirical study. The results illustrate that personal preferences play a key role on judgment and investigating how these are formed and affected throughout the decision-making process can provide useful insights and give more accurate answers.

Key words: preferences, consumer behaviour, purchase intentions, personal tastes, decision-making, consumer choice, interdisciplinary approach, consumption.

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## CHAPTER 1. INTRODUCTION.

### 1.1. An Overview

Recent years have seen a widespread debate in the fields of economics and marketing research, which have approached the question of consumer theory from different viewpoints. Economics researchers have often defined consumer theory as the study of how consumers maximise their utility, and thus satisfaction, through the consumption of goods (Ackerman, 1997), while marketing researchers, through consumer behaviour advancements, have investigated how consumers buy, use and dispose goods, services or ideas to satisfy their needs and desires (Kardes, Cronley and Cline, 2011). Apart from the terminology difference, consumers' personal preferences are defined by a large number of factors, such as tastes, marketing mix, beliefs, influence by social groups etc. Economic research though, assumes that all the above are irrelevant, and the preferences can be accurately predicted and described. When it comes to consumption, four important factors must be taken into consideration: price, quantity, income and consumers' preferences. But since these personal preferences are considered fixed in the microeconomic context, one should only focus on the monetary factors. On the other hand, marketing researchers concentrate more on understanding the consumer behaviour and strive to provide answers to questions, such as (1) who is important? (2) what are their choices criteria? (3) when do they buy? (4) where do they buy? and (5) how do they buy? The central idea of consumer theory according to the marketing perspective is that consumers vary, as well as, the motives driving their behaviour.

The review of the microeconomics context identifies three fundamental assumptions that underpin the neo-classical theory of consumption (Ackerman, 1997):

- *Asocial individualism*. Consumer aspirations and preferences are considered fixed; they are not influenced by social or economic institutions or other social groups.
- *Insatiability*. Human material desires and wants are infinite; the individual satisfaction is the outcome of more consumption.
- *Commodity orientation*. Consumers' tastes consist of well-informed wants for particular products <sup>1</sup> offered by the market.

Evidently, the above views are not independent from each other, and hence every alternative theory should address/challenge all three. The empirical research that has been done so far has essentially been descriptive or just commentary of the existing literature with limited hypotheses development. Depth of analysis that addresses this issue is missing. Consequently, there is little empirical documentation of how consumer theory can explain differences in the consumer behaviour and how successful this is (Thaler, 1980).

In this context, the marketing theory in an attempt to better understand the consumer behaviour has adopted a more consumer-centric approach putting the consumer, as an individual, in the heart of the decision-making analysis (as opposed to the economic theory where the emphasis was on the broader supply/demand environment of the consumer), putting emphasis on the factors that can actually differentiate the consumer behaviour such as personal characteristics, social influences, experience, beliefs and reference

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<sup>1</sup> In this study the terms 'target' and 'target product', often used in Economics terminology, is defined as a synthesis of tangible goods and intangible services a company offers to meet specific customer's needs and is used interchangeably with the term 'product', typically used in the Marketing Research. Given that the study uses insights from both Economics and Marketing Research areas, both terms are used for a more accurate and precise description of the concept. Both terms though (target or target product and product) represent the same meaning.

groups. In this context, some recent improvements suggest some key characteristics of modern consumers (Arnould and Thompson, 2005):

- High expectations
- Lack of time (for searching, evaluating products, etc.)
- Increased need for value-for-money offerings (not just price sensitivity)
- Difficulty in distinguishing between product features
- Increased demand for customization
- Increased need for convenience

On these grounds, it is evident that there is a great complexity in the study of consumer behaviour and the identification of factors (both 'hard'- quantitative, and 'soft' – qualitative) that suggest consumer selection criteria. This study posits that marketing research can be useful to the consumer theory in this respect, and contributes to address the limitations associated with the economic assumptions. Some considerations that emerge from this interdisciplinary integration which will guide the theoretical foundations of the study are (Ackerman, 1997):

- We are all active consumers that operate in a dynamic environment with a number of internal and external stimuli; our preferences are not exogenous to our interactions.
- Insatiable material desire is not the whole, not even the most, of the consumer behaviour. There are differentiated consumer needs and wants, many of them satiable. Economic theory needs to comprehend the sources of differing wants. Consumer behaviour stream of research will be particularly useful in this respect.

- Instead of marketed offerings per se, consumers are interested in benefits, services and experiences obtainable from products' utility value (e.g. a toothpaste), others are seeking symbolic value (e.g. a luxury handbag), and others seek emotional value (e.g. an airline company).

## 1.2. Purpose of the study

The evaluation of the pertinent literature discloses that the development of an interdisciplinary approach that consolidates both, economics and marketing improvements is important to better understand how the consumer behaves, the limitations that the study of economics discipline alone involves, and arguably, suggests a key limitation of the behavioural economic context.

The present study reviews the existing economics perspectives on consumption theory and claims that the necessary foundation for the formulation of an interdisciplinary-new theory can be supported by these viewpoints. Research advancements of alternatives in economic theory of consumption, whilst holding merit and their place in the literature, a more broadminded viewpoint is necessary. Standing for a single theory, creates insufficient models which in turn leads the whole matter of evolving the economic science to a standstill, and, eventually, fails to fully explain the consumer behaviour.

Although each stream of research has its own merit and have added to our understanding of consumer behaviour, they have largely run independently into different and often contradictory directions. Using insights from one discipline only is insufficient; both perspectives are needed to fully understand the consumer behaviour. Rather than ruling out one of the two, a researcher can merge findings and gain a larger overview by accepting and combining both disciplines. For instance, how consumer behaviour can become more measurable (i.e. marketing perspective) or how the research agenda of the consumption theory (i.e. economics perspective) can be enriched by consolidating

qualitative in nature ('soft') factors, such as consumers' preferences, that have been considered exogenous so far.

Based on the above, the purpose of the current study can be described as follows:

- The consumption theory as defined in the microeconomics literature fails to predict the consumer's choice, as the economic assumptions used lack realism. The present study will examine these limitations of the economic theory.
- The development of a new theory in which economics and marketing elements are included at the same time, will provide useful insights and predictions much closer to reality.

Based on these objectives, a number of concrete research hypotheses (H1 – H7) about the factors explaining the consumer choices emerge and are presented in detail in chapter three. Coming to the empirical context, the current study will attempt to examine the determinants of consumer behaviour, assessing a combination of monetary and non-monetary factors, by means of a large-scale quantitative research with a focus on the electronics sector as the research context. The decision to focus on this sector was taken because of the remarkable variety of alternative producers and products, as well as the considerable width and depth of each product-line. Therefore, customers have many options, a fact that eliminates the probability that the lack of an attractive offering guides the final choice of the consumer. The research design employed is consistent to previous literature (Kim and Forsythe, 2010; Zarantonello and Schmitt, 2010; Birke, 2009; Dawar and Parker, 1994) and to the conceptual framework that drives the current study, as detailed in Chapter three, and thereby is considered appropriate to address the hypotheses proposed in the current study. A detailed discussion of the methodology of the study and its rationale is presented in Chapter four.



### 1.3. Significance of the study

In the present study, an attempt is made to deeply understand and explain consumer's behaviour, and thus, consumer's final choice. This is a very broad concept and it is linked, to a certain extent, to the overall economic activity. In particular, some macroeconomic issues, such as unemployment and productivity partly depend on demand. Low individual spending often leads to low employment rate as businesses cannot produce commodities that won't be sold, and they won't hire workers they don't need. In this case, society will suffer from an overall lack of demand, as someone's individual spending is somebody else's income and vice versa. As a result, individual spending on a microeconomic level seems to be one of the reasons that instability takes place on a macroeconomic level, so -it's all about demand.

The present study views the research problem from the microeconomics perspective only. The objective appears to be two-fold. First, the study will attempt to examine the potential limitations of the consumer theory on a specific sector drawing on empirical data from a large-scale quantitative study focusing on consumers. Second, the study will use theories and methodological tools from the consumer behaviour area that grounds on the marketing discipline to explain the limitations of the consumer theory as defined in the economics discipline, through comparison and contrast of empirical findings.

From an academic perspective, the present investigation adds to the broader business/economics research by providing an interdisciplinary investigation of the factors that influence consumer behaviour, using insights from both, the economics and marketing stream of research. This is actually how research papers work: by keeping a few points from different approaches and disciplines, a researcher can achieve a whole new perspective on the subject never examined before. From a methodological perspective, in the present investigation a mixture of statistical methods and econometric techniques will

be used, which helps deal with complex analysis in understanding consumer behaviour. Finally, from a managerial perspective, having a deeper understanding of how specific factors affect behaviour can help suppliers operating at this sector, enhance business performance through consumer-focused strategies. Researchers who can understand their customers are able to develop better products, offer better services and predict what motivates individuals to buy. As such, they can deliver products that respond to this motivation. Last but not least, the present research also focuses on informing and helping consumers to make better decisions, in order to avoid illegal and potentially dangerous to society consumer actions.

#### 1.4. Outline of the Study

The rest of the thesis is organised as follows:

The second chapter of the study presents in detail, the consumption theory from the microeconomics and marketing perspective. The purpose of this chapter is to provide the reader with the basic theoretical background, in order to understand the theory of choice and identify potential gaps in the literature. In the first section an attempt is made to discuss thoroughly the fundamental assumptions on which the economics models are based, as well as, every other factor that economists take into account, such as income, satisfaction, etc. The most important contributions in the field are shown, from the oldest references to the most recent ones. Researchers' main concerns about the efficiency of the theory when applied, as well as their suggestions for further improvement, are sufficiently presented.

In the second section of this chapter, the consumer behaviour theory is approached from the marketing perspective. The consumer is put in the heart of the analysis in order to deeply understand the human nature and further explain what brings consumers to the market. Factors affecting purchasing behaviour and are not included in economic models, such as motivations, emotions, different human needs, memory, learning, evaluation,

choice alternatives, and so on, can offer useful insights to economists in their effort to develop further the consumption theory and predict consumer's choice. This section ends with the main conclusions of the literature review.

The last part of the chapter suggests the development of an interdisciplinary approach that includes economic and marketing advancements. The different ways that economic discipline and marketing discipline approach the consumer's behaviour theory are described. Since marketing perspective enlightens more our knowledge about consumers by using a broader range of factors, the development of a model that incorporates both, monetary and non-monetary variables is needed.

Chapter three introduces the conceptual framework and the hypotheses development, which is fully justified by the relevant economic and marketing theories. The proposed research model is discussed.

Chapter four focuses on the research methodology used for the current study and describes every single step of this procedure (research instrument, sample, methodology theory adopted, etc.). The discussion presented provides sufficient justification regarding the methodology adopted.

Chapter five shows in high detail all the data analysis process, including the statistical and econometric techniques used for the purpose of the current study. The results regarding the measures evaluation, the hypotheses testing, the descriptive statistics, the correlation analysis and the regression analysis are explained and thoroughly discussed.

In chapters six and seven the most important findings are presented, as well as, all the theoretical and managerial implications of the current study. The limitations in chapter seven can be seen as start points or suggestions for future investigations.



## CHAPTER 2. LITERATURE REVIEW.

### 2.1. The Microeconomics Approach: The Traditional Theory of Choice.

During the last years, the consumers' choice has emerged as one of the most important issues in microeconomic field. A number of authors have contributed significantly in order to deeply understand and further develop the consumption theory; however, the main idea remains the same. Utility theory plays a central role as it is the key for comprehending and measuring consumers' satisfaction through the consumption of goods and services. In the following paragraphs, the main hypotheses of choice, its advancements, as well as, any implications are presented.

#### 2.1.1. Is It Rational to Assume Consumer Rationality?

The traditional microeconomic approach describes a consumer whose behaviour is explained in terms of *preferences*. Preference is one of the critical determinants leading consumers to make specific purchase decisions. However, the economic approach suggests that personal preferences are strictly characterized by self- interest (Sen, 1977) and rationality only (Kahneman, 2003; North, 1993; Simon, 1978), which essentially mean the same thing; these concepts are all explained in terms of utility (Fishburn, 1968). Rationality suggests that all consumers should possess fixed preferences over time, all ranked on an ordinal scale, as the amount of utility extracted is the only leading determinant (Hausman and McPherson, 2006; Heap 2004). An essential element of this theory is the maximizing behaviour, under the constraint of scarcity of the available resources, time, and often under conditions of uncertainty (Becker, 1993; Coleman, 1990). The rational economic man, therefore, is expected to consider the marginal cost and benefit at the same time and try to maximize the expected net benefit for every single choice. This behaviour pattern cannot deviate from this set of formal rules, as it describes a man with internal consistency. Economists support the view that the rationality

assumption is essentially instrumental, as it is only used as a helpful tool to function the world and not for accurately describing it. The assumptions should be based on a fixed and representative individual behaviour which is used for explaining and predicting the average individual performance and not the specific individual behaviour. In addition, as long as the economic theory of choice keeps providing valid results and predictions, the unrealistic assumptions in not an issue for economists. However, do these predictions provide real understanding of the consumer or the illusion of understanding? Even under these conditions, the rationality assumption has been widely criticised as it has little correspondence with the real life and cannot be easily applicable (Ackerman, 1997; Becker, 1962).

The obvious limitation is that it only describes how consumers should behave, holding all the external influential factors fixed. The fact that individuals are human beings, not perfectly rational and sometimes can misinterpret the incoming information or fail to achieve the optimal choices has been totally ignored (Schwartz 2008; Jacoby, 2000). Also, the external world contains a myriad of influential stimuli beyond any monetary consideration and regardless of their intensity, all that enters into the decision-making process is the consumer's internal interpretation of all these external stimuli. Individuals have minds, they assess and respond to any incoming information, and this is the stage when a wide variety of psychological factors come into play. These include past experiences, expectations, motives, personality, attitudes, values, beliefs, memory, etc. Since all consumers are not alike, all this information is always being interpreted in terms of what they already know or –more importantly- what they think they know. It is not objective reality, it's mostly psychologically perceived reality that determines how they interpret and react. They cannot always seek to behave rationally, sometimes they consciously make irrational choices when the decision is of minor importance or they are

driven by a mixture of conscious and unconscious elements always depending on the current circumstances. In some cases, the focal point is the intangible perceived value, such as the symbolic value derived from the tangible good or the communication of specific messages to the social environment from the consumption of specific products (e.g. Luxury goods). Also, the different interpretation of the same stimuli leads to different behaviours from those expected and predicted. Risk, for instance, suggests one of these cases. Often, the subjectively perceived risk is different from the objective risk and consumers may see some choices as being riskier than they actually are, or may fail to see things as risky when, objectively, they should. There is empirical evidence that individuals do not necessarily make an effort to reduce the perceived risk, but sometimes trying to keep it at a comfortable level works better (Kahneman, 2003). As long as, the emotional considerations are not taken into account as crucial determinants in the economic models, the rationality assumption will always be untenable (Slovic, 2000; Friedman and Hechter, 1988).

The standard Rationality Theory is based on three testable and closely related assumptions; Insatiability, Asocial Individualism and Commodity Orientation.

Insatiability. Due to their human nature, consumers are considered to have infinite desires and unlimited wants and more satisfaction is always extracted by additional consumption (Jackson, Jager and Stagl, 2004; Galbraith, 1998; Ackerman, 1997). However, human behaviour is much more complex than that and great effort has been put into comprehending it fully. A significant innovation was the 'Revealed Preference Theory', first introduced by Paul Samuelson (1948), who stated that consumers' real preferences are revealed and fully observed by the actual choices they make in the market, and therefore, there is no need for developing any assumptions relating to purchasing behaviour and satisfaction. The linear relationship between individual income and individual spending in

the sense that an income increase often leads to a spending increase, shows that consumer needs are, apparently, infinite. Otherwise, the consumption would stop at the point where needs would be fully satisfied and any changes in income would not have any impact on purchasing behaviour. Even though this finding is considered as an important contribution in research and adds to our knowledge regarding consumers' preferences, it does not remove the unrealistic dimension of the insatiability assumption. The Revealed Preference Theory fails in developing further the theory of choice, as it suggests that preferences are revealed by the actual choices and these two concepts appear to have exactly the same meaning. It doesn't take into account that consumers do not always purchase goods with the total freedom of choice due to moral obligation or commitment or ideals, so the term preference is not and should not be associated with the term choice (Sagoff, 1994), or alternatively, there should be a distinction between the consumer's ethical preferences and consumer's subjective preferences (Sen, 1977; Harsanyi, 1955). The ethical preferences reveal information about what an individual prefers on the basis of impersonal social considerations, whereas the subjective preferences express the actual choice based on the personal taste and this dual structure gives the opportunity to researchers to distinguish between what individuals regard as good from a social point of view, as well as, from a personal point of view. The focus of the insatiability assumption lies on the tangible good itself only and ignores if human satisfaction is related to any other aspect of the consumption process or any activities out of the market from which utility could also be obtained (Scitovsky, 1992).

The real question though is the following; Does the insatiability assumption actually hold? Previous research has indicated that there is a point where satiation actually occurs and more consumption no longer leads to higher satisfaction (Wilkinson and Pickett, 2010; Ahuvia, 2008; Layard, 2005; Durning, 1992). At this satiation point, any increased income



or additional consumption are not perceived as incentives anymore, and do not provide any additional positive emotions, such as more happiness or more satisfaction. Interestingly enough though, research shows that consumers do not stop after the satiation point, they still look for more income and material goods to consume even if satisfaction is not derived. One possible explanation is the consumerist culture that individuals are bombarded with throughout their lives, covering through materials their social needs. Other explanations lie on psychological factors (Ahuvia, 2008), such as the human tendency to store more and more resources, the short-term influence the income provides or the failure to set happiness as a realistic life goal. The insatiability assumption should be considered as a behaviour pattern occurring at certain times of life and under certain circumstances, as it is unlikely to succeed as no more satisfaction or utility is extracted.

Asocial Individualism. This assumption introduces a consumer whose personal tastes and wants are considered exogenous, or in other words, they are not affected at all by any external stimuli like social groups, institutions or by observing others' everyday habits. Even though it is considered as a fundamental assumption and is widely used in neoclassical theory, it has been highly disapproved for various reasons. The focal point was the identification of social factors influencing consumer behaviour and the main criticism was about the fact that consumers' tastes and desires can be viewed as interdependent only, as they are determined from both, social stimuli and personal experiences (Grubb and Grathwohl, 1967; Galbraith, 1958; Leibenstein, 1950; Veblen, 1899). Various examples from everyday life show how much individual preferences are affected which result in different consumption habits, as nowadays consumption is perceived as a form of informal competition. This statement is in line with what Duesenberry (1949) first defined as the 'Demonstration Effect'. According to this approach,

all material goods are divided into two categories only, ceremonial and instrumental, and consumers keep getting satisfaction from the status they confer and the use-value. That possibly explains why individuals have the tendency to be attracted to lavish lifestyles and to luxury goods. In that sense, the interplay between social stimuli and consumption results in a direct and linear relationship, preferences can no longer be considered as fixed anymore and this shift in tastes is so crucial that often results in shifting the whole demand for a particular good.

The various social stimuli though are not the only sources of influence, as preferences are also driven by intangible concepts derived from the product consumption, rather from the tangible product itself. For instance, commodities considered as status symbols, like paintings or antiques, with limited availability in the market (scarcity), are often highly demanded. These 'positional goods' (Solnick and Hemenway, 2005; Sen, 1983; Hirsch, 1976) –as defined in the literature–, do not obey to the typical law of demand; when demand increases, their supply does not increase, which makes those possessing them, experiencing feelings of uniqueness or superiority. Prices rise, as there are only a few items available in the market, and thus, competition among consumers becomes very intense. This phenomenon actually makes sense as individuals tend by nature to compare themselves with others and their satisfaction is affected by relative, rather than absolute, terms (Easterlin, 1995; Tversky and Griffin, 1991).

Ignoring the fact that preferences actually change can lead to flawed conclusions. The asocial individualism assumption seems that it cannot be longer supported as tastes shift over time through a very complicated procedure with many factors occurring simultaneously. However, even if this assumption is developed further in the future and is incorporated in the economic models of choice, it cannot provide a sufficient new theory entirely on its own.

Commodity Orientation. This assumption describes the direct relationship between commodities and satisfaction. It suggests that all consumer's needs are well-defined and characterised by perfect information for all the bundles of goods available in the market (Ackerman, 1997). Besides the fact that the focal point here is the tangible good itself, consumers based on the perfect information they possess, should be able to accurately predict the level of satisfaction, as well as, all the trade-offs they need to consider for every potential purchase. Obviously, this assumption lacks realism, individuals cannot be able to accurately predict the expected utility in advance, especially when it comes to products never experienced before. This profound lack of knowledge though, it is not entirely an obstacle, when individuals are able to, at least, define the specific attributes (flavours, comfort, etc.) they seek in material goods (Lancaster, 1966).

In particular, previous research has shown that consumers do not necessarily get satisfaction from the actual material goods, but from the specific features they possess. Interesting enough is the fact that a combination of goods can provide different set of characteristics and experiences to individuals from situations where exactly the same products are used separately. This relationship is strictly linear; twice as much of a good, twice as much of its characteristics, which reveals that the insatiability assumption still holds referring to product features only this time. On these grounds, an entirely new model was developed drawing a parallel between a consumer and a household (Muth, 1966). Just like in a household where inputs are purchased for being transformed into goods by using labour, a consumer transforms product characteristics into commodities (satisfaction) in a similar manner. This model was extended even more after noticing that personal tastes can no longer be considered as fixed and this shift in preferences was incorporated as a change in the technology of the household (Becker and Stigler, 1977). Although this extended approach seems to have merit, several concerns can emerge (Ratchford, 1979;

Hendler, 1975). Is it possible all these product features to provide the maximum satisfaction? Can these characteristics be seen as negative after repetitive use? Is the satisfaction extracted from the characteristics linked to the good that delivers them or is it totally independent? According to the pertinent literature, all these questions have significant meaning and by providing answers, they can be seen as a sufficient starting point, but one can hardly say that a sufficient new theory will be developed.

Although these studies have contributed essentially in the economics literature, it seems that the gap is still here. These fundamental assumptions reveal that consumers should be based on a stable set of preferences due to the fact that personal tastes are considered exogenous so far. However, the markets for the majority of goods are highly dynamic nowadays, undergoing continuous changes in the brands, product features, product positioning, prices, etc. Never in all recorded history has there been a time when consumers have had such variety of choice as today. As a consequence, the external stimuli can no longer be counted on to provide a stable set of alternative options, but they should be assumed to affect one's set of preferences in a meaningful way. The current study does not argue that consumers do not have preference sets, it argues that there are good (empirically based) reasons to believe that they are not as stable as assumed by the Rationality Theory. As such, these assumptions should be and can be further developed taking into account that consumers are active human beings and not independent from their social/cultural environment and their personal tastes should no longer be considered as fixed (Ackerman, 1997). The empirical evidence shows a considerable shift in the actual preferences as a result of the external stimuli influence and suggests that people often act in unpredictable ways based on many social or personal factors, such as beliefs, values, social approval or comfort, so it depends on the particular circumstances each time. Moreover, needs cannot be fixed; some of them are satiable and other ones are infinite

and consumers may try to satisfy them by looking for some specific features in goods, rather than for the specific good itself.

Consumer decisions cannot always be made through a rational process during which they assign a value to each desired product. This definition lacks realism, precision and objectivity. For instance, from whose perspective is rationality defined? Is this defined from the decision maker by judging their own choices? Is this defined by an external and independent observer? Or is it from measuring one's satisfaction level? In order to be able to characterize a decision as irrational, it should be agreed with precision on what is and what is not rational first.

#### 2.1.2. Price Perception

Economics research indicates a direct relationship between price and purchase decision which is always explained due to the rationality assumption (Jacoby, 2000; Erickson and Johansson, 1985). It essentially means that a cost reduction should always lead to a single and only prediction; an increase in consumption. In other words, if price represents the amount of money that must be given up, a higher price will always affect negatively purchase intentions (Völckner, 2008; Lichtenstein, Ridway and Netemeyer, 1993) as it is regarded as a constraint (Lancaster 1971). Based on this view, consumers can be divided into the following categories (Tellis and Gaeth, 1990; Schindler, 1990; Lichtenstein, Netemeyer and Burton, 1990; Monroe and Chapman, 1987; Thaler, 1985; Erickson and Johansson, 1985; Cotton and Babb, 1978); those that primarily base their decisions on functional or economic utility received to price paid (value consciousness), those focusing exclusively on paying low prices only (price consciousness), those constantly seeking for price reduction in coupon form (coupon proneness) and those sensitive to price that tend to evaluate more favorably prices set during sales promotions (sale proneness). This view reveals that consumption should be mainly valued on the basis of its utilitarian aspects only (functional nature of consumption) and there is no any reference at all to situations

that consumption is based on hedonic processing. Some consumers are expected to behave according to the traditional theory of choice as they will be highly encouraged for spending due to the price decrease. But what happens in situations that consumers are not that rational and choose predominantly on the basis of hedonic or emotional motives? Could this be the case? The answer is yes, it could be.

There are many different scenarios describing consumers' reactions to price decrease which not only deviate from the economic predictions, but are not mentioned in the traditional theory of choice at all. For those consumers that price is not included in their purchasing criteria, a price reduction does not work as an incentive and often, it is not even noticeable. Others make purchases at a lower price level, however, the real motivation is not the reduced price but the product target, as they would have bought the target anyway. Last but not least, lower price levels can be perceived as indicator of poor product quality, or as a signal that the target does not have the same impact to the social environment that it used to have, or as a signal that it possesses a lesser value due to a forthcoming replacement by a more advanced one.

The discussion about the price perception so far reveals a linear negative relationship between price and purchase decision, which is strongly supported by the economics perspective. However, for some consumers price is perceived more positively and actually represents product perceptions ignored so far. Previous empirical research has shown that high prices are seen as indicator of quality (price seeking consumers), which leads consumers to evaluate the target in a more favorable way (Tellis and Gaeth, 1990; Lichtenstein, Bloch and Black, 1988; Erickson and Johansson, 1985; Monroe and Krishnan, 1985). It is widely believed that high prices are the outcome of the firm's higher spending for improving the current product quality, or the result of other consumers' willingness to pay more for better quality products. This phenomenon is more common

with durable or visible goods (Tellis and Wernerfelt, 1987), such as cars, wine, clothing, etc. Similar to the perception of what price signal to the buyer, is the perception about what it signals to the social environment about the purchaser (prestige sensitive consumers), as high prices are often perceived by others as reflective of internal traits of the purchaser (Calder and Burnkrant, 1977; Jones and Davis, 1965).

The traditional theory of choice does not seem to investigate in the potential psychological effects of pricing, as price is seen as a monetary factor only. When it is not evaluated in terms of utility, but it is considered on the basis of its psychological aspect, rationality is no longer applicable. The pertinent literature suggests that price is not just a number that consumers try to incorporate into their available spending, but it actually affects their psychological processing in various ways. Purchasing intentions are partly determined by some internal price reference points that consumers often use when evaluating a target (Kalyanaram and Winer, 1995; Lattin and Bucklin, 1989; Putler, 1992; Thaler 1985; Monroe, 1979). This internal standard point reflects the consumer's expectations shaped by the past pricing activity (Greenleaf, 1995; Kalwani, Yim, Rinne and Sugita, 1990), which sets a lower and an upper price threshold. The reference point is interpreted as a neutral point and any positive or negative difference between this and the price of the target, determines its attractiveness. As expected, a positive difference between these two points is perceived as a gain whereas a negative difference is perceived as a loss, and the level of this gain/loss is often perceived as one of the target's attributes. Interesting enough is the fact that lower price levels as a result of sales promotions can easily form an internal reference point. A return to the prior price level can be seen as a price increase due to the fact that any past and present experiences set a reference point relative to which new stimuli are compared. That's the reason why consumers react more strongly to a price increase compared to a price decrease.

### 2.1.3. Resources (or Income)

The traditional theory of choice suggests that the available resources –mostly focusing on income- is one of the key determinants influencing consumers' decisions. Rational consumers should constantly make the choices that provide the maximum level of satisfaction taking into account the income constraint (Varian, 2014). The traditional theory suggests that when income increases, consumption increases accordingly, as more utility is derived and vice versa. But can be assumed that the relationship between consumers and resources is that linear and straightforward? The answer is no, it can't be.

Previous empirical research has shown that the key element is not the income level itself, but the desired consumption; When the desired spending exceeds the actual available resources, consumers experience the feeling of being financially constrained. Hence, they change the way of evaluating targets, which often results in shifting preferences. Financially constrained consumers adjust their purchasing behaviour by reducing overall spending (Karlsson, Garling, Dellgran and Klingander, 2005) and thus consumption (Stilley, Inman and Wakefield, 2010; Shefrin and Thaler, 1988), by investing in more long-lasting purchases (Tully, Hershfield and Meyvis, 2015), by considering several trade-offs between materials goods and experiences (Dunn, Gilbert and Wilson, 2011; Carter and Gilovich, 2010; Nicolao, Irwin and Goodman, 2009), by spending more on the necessities (Cole, Thompson and Tufano, 2008), and by being more price conscious (Ailawadi, Neslin and Gedenk, 2001).

Limited resources lead rational consumers to reduce overall spending through planning of the future expenditures (Fernbach, Kan and Lynch, 2014; Buchanan, 2008; Erdem and Kean, 1996). Planning is distinguished in two different forms; the efficient planning and the priority planning. The aim of the efficiency planning is to yield savings by stretching the available resource or in other words, by avoiding the unnecessary waste. The priority



planning, on the other hand, is essentially the opportunity cost concept; Consumers achieve savings by making trade-offs between their goals. The priority planning is an essential part of the economic theory when it comes to resources, as the opportunity cost should be incorporated into every decision that rational consumers should make (Spiller, 2011). However, the reality is that individuals tend not to pay attention to the opportunity cost, unless they face certain circumstances (Frederick *et al.*, 2009), such as resource constraints (Soster, Gershoff and Bearden, 2011; Morewedge, Holtzman and Epley, 2007; Ball and Romer, 1990), experience of pain when paying (Rick and Loewenstein, 2008), consideration of the value of the marginal dollar (Chandukala, Dotson, Brazell and Allenby, 2007) and paying attention to outside alternative options (Spiller, 2011). Interesting enough though, is the fact that sometimes the opportunity cost can result in under-consumption (Shu and Gneezy, 2010), as considering so many alternatives simultaneously and focusing so much on monetary values affects negatively the purchasing intention.

The perceived constraints have a direct effect on preferences as consumers are more concerned about the longevity of the future purchases and the anticipated benefits. The main idea is that longevity provides the feeling of 'still having something' in the unlikely event that future purchases are no longer affordable. This increased concern about longevity systematically shifts spending on different categories and affects their relative preference for tangible goods versus intangible concepts, such as experiences (Dunn, Gilbert and Wilson, 2011; Carter and Gilovich, 2010). This distinction is crucial for various reasons. Previous research has shown that choosing material goods over experiences is negatively associated with the personal and societal well-being (Tully *et al.*, 2015) and also, that experiences provide greater long-term satisfaction than tangible goods (Van Boven and Gilovich, 2003) due to the fact that memories and storytelling through

experience provide more long-lasting utility. This higher utility is the result of individuals perception that memories are more of a part of themselves compared to material goods (Carter and Gilovich, 2014) as they have been remembered, experienced and assessed in personal terms. There is no doubt though that some experiences are stronger than others, but when it comes to happiness, the nature of the experience people are engaged matter less than the fact they are engaged in it.

#### 2.1.4. Utility Theory; Necessary but Not Sufficient.

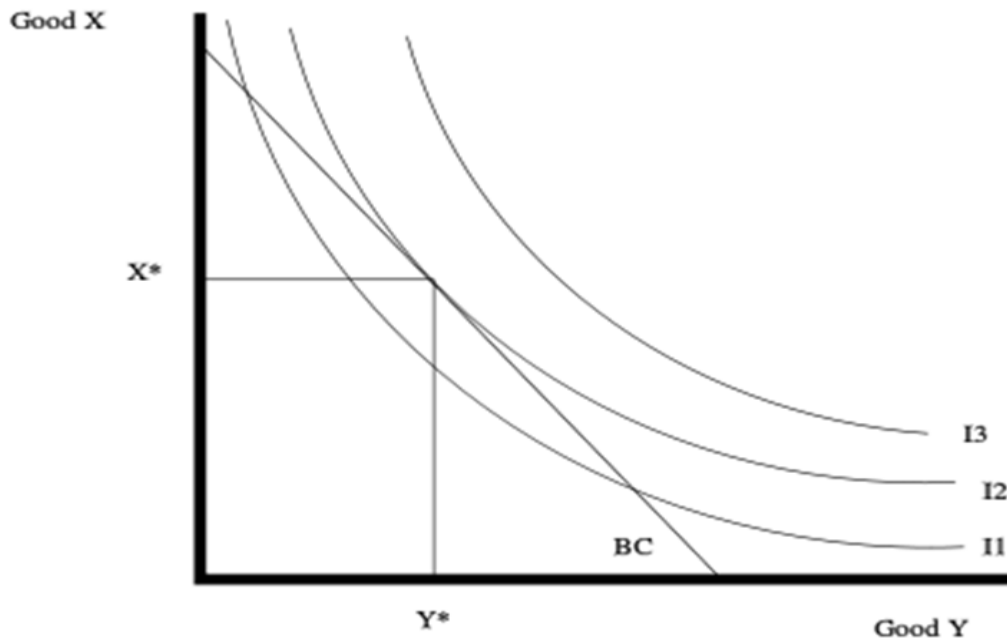
Classical economists often considered utility as an indicator of peoples' general well-being, that's why this concept is roughly synonymous with satisfaction, happiness and welfare. Economists in the very beginning used exclusively numeric ways for measuring consumer's happiness by adding separately the utilities derived from the consumption of each bundle of goods and that was the essence of the notion of utility (cardinal measure). However, due to the fact that the theory didn't include any accurate and consistent methods of measuring the precise utility level, the idea of using it as the main indicator was abandoned and, finally, it is only used as a tool for ranking all alternatives by preference (ordinal measure).

The concept of utility, originally developed by the philosopher Jeremy Bentham (1789), indicates the direct relationship between consumption and satisfaction and it essentially represents the pleasure individuals get through the consumption of material goods or experiences. In modern economics though this definition seems simplistic and it is no longer used due to its hedonic nature which cannot be easily observed or measured. Economists define the traditional meaning of utility, as developed and used by Bentham, as experienced utility in order to be distinguished from the definition used in modern economics (Kahneman, Wakker and Sarin, 1997). The experienced utility consists of two different sub concepts; the instant utility and the remembered utility. The instant utility

refers to the pleasure or distress of the moment and can be evoked by previous consumption experiences or by the social environment whereas the remembered utility determines whether a situation experienced in the past should be experienced or avoided. The decision utility on the other hand, is a more accurate measure inferred from choices, either by direct comparisons of similar commodities or by indirect methods, like willingness to pay. This is the only type of utility included in the theory of choice, as economists tend to believe that the utility theory can stand alone and be independent of any psychological assumptions focusing solely on aggregate data such as quantities, prices and incomes.

The traditional Consumption Theory or alternatively, the Theory of Choice is based on the concept of utility and it suggests that '*consumers choose specific bundles of goods and services available in the marketplace, in order to derive the maximum utility and their choices are uniquely determined by certain constraints limiting their behaviour, such as the available income and the price level*' (Varian, 2014). In fact, individuals are expected to behave in such a way that their utility is always maximized, and no change can improve matters.

The optimal choice is presented in the graph below for two different goods, X and Y.



Graph 1: Consumer's Optimal Choice.

The optimal choice is the point that the curve  $I_2$  touches the line BC (income constraint), which means that with the available income given, the consumer will extract the maximum amount of utility at the  $X^*Y^*$  point. Regarding the indifference curve  $I_1$ , all the bundles of goods lying on it are affordable, but they do not provide the maximum satisfaction. On the other hand, the indifference curve  $I_3$  would be a better choice because greater amount of utility is derived, as well as more units of both commodities. However, the income is not high enough for this upper level, so it is not an affordable point. The line BC represents the income constraint and it exists because consumers should choose the most desired bundles of goods/services from those they can afford. With the variables of price and income given, economists calculate the affordable choices for the bundles of X ( $x_1, x_2$ ) and Y ( $y_1, y_2$ ) as follows:

$$P_1x_1 + P_2x_2 \leq m, \quad \text{where } P_1: \text{price of good 1}$$

$$P_2: \text{price of good 2}$$

$P_1x_1$  represents the amount of money spent for the good 1 and  $P_2x_2$  represents the amount of money spent for the good 2. The overall expenditure for these goods cannot exceed the total available amount  $m$ , which is essentially the consumer's budget set (Varian, 2014). All bundles placed on every point of the budget line cost as much as the consumer's income, and thus, the available resources are fully exhausted. Any bundle placed left of the budget line is always affordable; the available income is more than enough to buy it, since it cost less.

It is also important to note another major element of the graph, the curves  $I_1$ ,  $I_2$ , and  $I_3$ . In the simple case that there is only one available commodity in the market, the answer of how much satisfied someone is, would be given directly from the utility function, since there are not any alternative options. However, when a second or more goods enter the picture, there is need for turning into the indifference curves concept. In microeconomic theory, the indifference curves play a key role. They are graphs that represent different bundles of two commodities from which the same amount of utility is derived for all possible bundles placed on the same curve (Varian, 2014). The indifference curves enable analysts to make some meaningful sense out of all the potentially useful information on what is called the shape of the individuals' preferences, which obey to some fundamental axioms. Every different level of utility is represented by a different indifference curve on the map, and the indifference curve map is unique for every consumer. Moreover, each combination of goods placed at the right of an indifference curve is always more preferred, as it contains more units from both commodities and as a result, higher amount of utility or satisfaction is extracted. Finally, the indifference curves representing different levels of utility cannot intersect, and they are negatively sloped, because consumers always prefer bundles containing more units (insatiability assumption).

For analyzing purposes, economists have also developed a mathematical expression for the optimal choice:

$$\text{Max } U = u(x_1, x_2, \dots, x_n), \quad \text{where } U: \text{total utility}$$

$u$ : utility extracted from each good or service

$x_1, x_2, \dots, x_n$ : goods and services purchased in the market

*Subject to*

$$I = \sum_{i=1}^n P_i * X_i, \quad \text{where } P_i: \text{price of the good } x_i$$

$I$ : Income Constraint

Although this central idea in microeconomics is widely used for understanding, explaining and predicting the optimal choice, several studies have identified some important weaknesses. The major criticism is that the variable of preference is treated as fixed (exogenous) whereas the monetary variables are considered as dynamic, but to whatever extent these monetary variables do not explain behaviour, the explanation rests with variation in preference only (Friedman and Hechter, 1988). The basic idea behind this approach is that the monetary factors are more easily quantified than preferences, especially when a useful economic theory for the formation of tastes does not simply exist. Based on this view, the traditional choice theory is seen as an empty theory that seems to extract the minimum of results from the minimum of assumptions, as it does not provide accurate results under different conditions from those given; what happens when new products enter the market or when different bundles possess different features compared to goods used separately or when information are provided about quality variations are not mentioned at all. The fact that the traditional choice theory fails in explaining and predicting behaviour even if consumers choose randomly, suggests an additional

limitation (Michael and Becker, 1973). Although economists often use random choice as a valid method collecting data for providing 'clean', unbiased and more accurate analysis and they use grouped data for reducing potential errors and increasing the data explanatory power, the unrealistic assumptions applied in economic models do not guarantee the findings of the study of the optimal choice.

Researchers have also expressed concerns regarding the efficiency of the theory, as it provides insights regarding the way consumers should choose (normative model), rather than how they actually do it (descriptive model). In the simplest case scenario that the available goods in the market are very few, the normative models are acceptable as they seem to work properly. However, in much more complicated situations that take place in the real world, the actual choices deviate significantly from the predictions (Jacoby, 2000; Herrnstein, 1990; Thaler, 1980; Sen, 1977). When one preference set is given only is supposed to reflect consumers interests, to represent all the available resources, to summarize all ideas regarding what should be done, and finally, to explain the actual behaviour with precision. In order to tackle with these limitations, the economic models should be relied on more realistic assumptions characterized by dual structure, which permits to distinguish the personal preference ('actual' preference) from the social preference ('ethical' preference).

#### 2.1.5. It's All About Demand

The importance of investigating and exploring consumer behaviour does not refer only to the individual level, but also plays a key role in the total economic activity. Paul Krugman (2012), the Nobel prized macroeconomist, supports the view that individual consumption is one of the factors that affects the overall productivity of an economy through unemployment, especially when societies experience recession times. He admits that consumers should spend their income on 'something' instead of spending less and saving

much more than they usually did in the past, as this phenomenon in combination with other macroeconomic factors, can lead to high rates of unemployment. This statement makes perfect sense. Unemployment rates increase when societies experience overall lack of demand, as it is difficult for businesses to continue producing the same number of commodities as they previously did, and they cannot pay workers they don't need, as there is no need for producing products they cannot sell. Hence, the unemployment rate appears to be increased and the total productivity of the economy declines. So, the economy, as a whole, cannot reach its potential level of efficiency. This may sound simple, but it appears it's not. Krugman pointed out that this situation can be proved tricky, especially in times that societies experience long times of recession and economic crisis, and consumers tend to save more and spend much less than they did. So, suddenly, total spending plunges, and because someone's spending is somebody else's income and vice versa, income and employment plunge too. Apparently, the need of developing a theory with high predictive power about the consumer choice is inevitable.

Ackerman (2002) on the other hand, mentions a different aspect of the macroeconomic perspective. In his article 'Interpreting the Failure of the General Equilibrium Theory' argues that even though the concept of the equilibrium theory is widely applied in economics and the majority of the economists believe that it has been a useful tool for discovering the optimal point, two significant problems are pointed out; no unique equilibrium point and instability. The uniqueness of the equilibrium point can be succeeded only under certain restrictions, which are not actually applicable in reality. If this statement is true or even partly true, several concerns can emerge. For instance, infinite equilibrium points actually mean infinite optimal points, and in this case, society cannot know which one is potentially the most socially desirable compared to the others. Consumer preferences though, have nothing to do with that until instability enters the picture.



Instability is what the word reveals itself; when an economy has reached a desired optimal point, it might move quickly and easily to a less desirable one. So, what features of the equilibrium led to its failure? The first argument refers to the limitations of the aggregate demand. Factors such as the methodology of aggregation, the unrealistic assumptions on which models are based or the nature of the market mechanisms can partly explain this phenomenon. However, the second argument lies on consumer theory (Ackerman, 2000), as the high dispersion of the personal preferences is one of the main sources of the aggregate instability (Hildenbrand, 1994). The main criticism is that the economic models offer too little information about what individuals actually want or do (Saari, 1995) and the fact that consumers may look for specific product attributes or overall experiences through the consumption process is not taken into account at all. Even though this is consistent with the manner in which psychologists, sociologists and anthropologists understand the consumption process, surprisingly enough little has come of this approach in economics. The application of the independence assumption between consumers is an additional aspect of the whole problem, but in consumption theory, interdependence is not considered at all, which means that all consumers behave in the market rationally and without being influenced at all by any social/external stimuli. Hence, the current economic models of consumption cannot reach accurate predictions since they are based on such weak assumptions.

A potential answer to this problem might be to identify the dispersion of consumer preferences (Hildenbrand, 1994). In case that the majority of the individuals are similar, they could be treated as homogeneous and the extraction of the average representative consumer is feasible. However, this is not the case here, as all consumers are so different and unique with no constant preference set over time. Even if a possible resolution could be the identification of broader classes of distributions of preferences in order to evaluate

if the current economy is more or less likely to meet the corresponding distributional requirements (Grandmont, 1991), the fact that the current theory leads all consumers to behave similarly, does not help at all.

#### 2.1.6. Does the Theory Pay?

The study of consumer theory has been a dynamic and challenging field of microeconomics over the last years. Although economists have expressed several concerns regarding the efficiency of the theory and tried to develop new ones in order to tackle with the limitations, it seems that the gap is still true and wide. The majority of the authors underscore the need for developing the existing theory and suggest several alternative approaches without success so far. In particular, it has been argued that the economic theory if considered alone is insufficient to explain the consumer behaviour mostly because it lacks flexibility (Jacoby, 2000) and there have been calls for an interdisciplinary approach where insights from other disciplines could enrich the research agenda and lead to more pragmatic models of explaining consumer behaviour (Ackerman, 1997). However, to date, there has been no empirical examination of how and why research on consumer theory should consolidate advancements from other disciplines. The analysis remains to a descriptive and relatively conceptual level lacking empirical documentation (Krugman, 2012). The assumptions on which economic models are based on, lack realism. Researchers' opinions are conflicting and confusing in their effort to reach a conclusion, however no significant advancements in consumption theory have been reported to the literature in recent years (Jacoby, 2000; Ackerman, 2002; Ackerman, 1997; Herrnstein, 1990). As a result, the traditional theory of choice fails to understand, explain and even predict consumer's behaviour in most cases, and economists keep using it in the absence of a better theory.

Economic assumptions applied in economic models describe only how a consumer should be and do not focus on the main characteristics driving purchasing behaviour. The notion that all consumers have a complete knowledge about all their needs and desires, about all the alternative offerings in the market and they possess the ability to objectively assess the available offerings at issue is no longer applicable. So, if consumers are not able to keep in mind all of their needs and all alternative options in the market, or if they cannot objectively evaluate the offerings, is it rational to be expected always to behave in terms of some external criterion of rationality? Also, if individuals have different theories to explain the world around them, will they make different 'rational' choices then? The dissection of the rationality assumption is necessary in order to incorporate more realistic assumptions into the economic models that guide human decision-making.

Some economic researchers though, support the view that only prediction is what matters most and as long as the theory provides a basic understanding, the unrealistic assumptions are not a limitation anymore. However, does this theory provide indeed a sufficient understanding of the consumer or the illusion of understanding? As described, even though the concept of personal preferences provides useful insights into that direction, is not even included as rational choice theory is mute about what these preferences are and where they come from. Instead of trying to investigate deeply how and under what circumstances personal tastes are formulated, economists only include monetary factors in their models, such as prices, quantities and incomes. Totally ignored remains the fact that the objective external reality does not govern consumer behaviour and the rejection of the interdependence assumption among consumers certainly does not help in reaching closer to reality. Even though the complexity of the market requires a more quantitative and static approach in economic models, when it comes to consumers, this cannot longer be applicable.

Economic models appear incomplete with limited explanatory or predictive power. The main criticism focuses on the assumption that all individual units behave as the average aggregate behaviour, which is rather superficial; All consumers cannot be treated as being homogeneous. Even the concept of utility, which is the central idea and widely used by economists in their effort to measure consumer's satisfaction, does not work. Apart from the application of the standard theory which holds under specific circumstances only, economic models do not provide any useful answers to questions such as (1) what happens in situations that consumers desire a good twice over another one? (2) Can consumers desire a bundle of goods as much as an alternative one? And (3) would the same good be still desired under different circumstances? Knowing only the exact amount of utility extracted does not add to our knowledge at all.

As Paul Krugman (2012) says, 'economists know the price of everything and the value of nothing'. The focal point is always money and consumers well-being is associated with numbers, assuming that income is only what matters. Economics has been one of the least important contributors and one of the disciplines least affected by new approaches when it comes to consumption theory. As long as the economic models are based on assumptions that lack realism, do not include the consumer's preferences as a significant factor that affects behaviour, but emphasize more and more on prices and incomes, it seems that little can be done. The present study does not imply a wholesale rejection of the neoclassical approach to economics based on utility maximization, equilibrium, and efficiency, because it provides economists with a strong theoretical framework indeed. However, it suggests that the theory should be properly adjusted as consumers are human beings with personal tastes affected by various social and personal factors or other stimuli of everyday life. As long as, there is no any useful theory in economics about consumer's preferences and personal tastes, there is need for using existing, well developed theories

from other disciplines, such as marketing, in which a more consumer-centric approach is used.

## 2.2. The Marketing Approach: Why We Buy What We Buy?

Consumer behaviour has been studied and derived from many different disciplines and perspectives so far, such as economics (supply-demand approach), sociology (group behaviour approach), psychology (mental approach), anthropology (human-being approach), and marketing (consumer-centric approach). For marketing researchers, a key concept is customer centrality. They provide useful insights on how consumers choose in the market since every single step of the decision process is separately examined, from the very early stage that a need emerges, until the disposal activities (Kardes *et al.*, 2014). For marketing practitioners, understanding the ways in which people make decisions about purchasing behaviour is of crucial importance in planning almost every aspect of managing the exchange process. Understanding the processes involved in making those decisions is central to establishing policy, as it enables marketers to predict what motivates people to buy, and then deliver products that respond to those motivations. Contrary to the economic analysis that focuses only on the objective factors, like quantities, prices and incomes, marketing research concentrates more on subjective factors such as personality, attitude, social class, preferences, emotions, cognition, social and cultural environment.

Personal tastes, or alternatively, preferences seem to be the primary driver behind purchasing behaviour. Very often, they give information either on why consumers choose to buy or not to buy a particular product or why they choose one type of product over the alternative ones. Emotions, experiences, uniqueness, relevant information, price, opportunity cost, and social/cultural environment are only some of the factors that compose the term 'preference'. Besides all these factors, organizations can also take

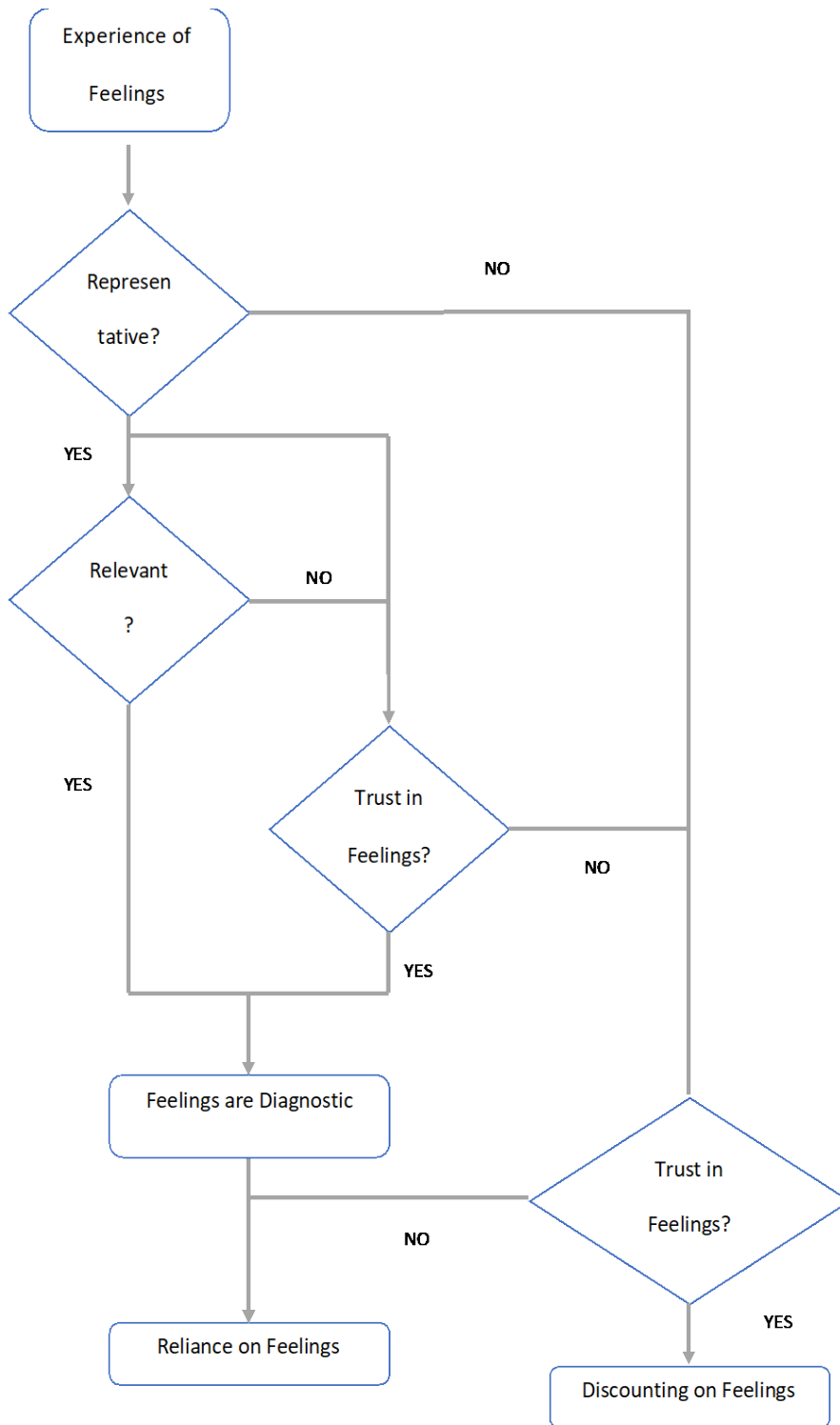
some action to affect a consumer's preferences through marketing strategies (marketing mix).

#### 2.2.1. All Emotions Are Not Equal

Previous research has underscored the impact of feelings on judgement and attitudes (Cohen, Pham and Andrade, 2008; Schwarz and Clore, 2003; Laros and Steenkamp, 2005; Pham, 2004; Isen, 2001) due to following main reasons; (i) the accessibility of the feelings (White and McFarland, 2009), and (ii) the diagnosticity of the feelings (Greifeneder, Bless and Pham, 2011; Schwarz and Clore, 1983). The accessibility of the feelings becomes apparent mainly due to limited ability to process information by distraction (Albarracin and Kumkale, 2003), by time pressure (Siemer and Reisenzein, 1998) and by experiencing intellectual load (Shiv and Fedorikhin, 1999). Diagnosticity, on the other hand, requires a different set of conditions which refer to representativeness (Strack, 1992), relevance (Pham, 1998) and 'trustworthiness' of feelings (Avnet, Pham and Stephen, 2012). Representativeness occurs when feelings are perceived to reflect the target's attributes, whereas relevance refers to the relevant emotions used as criteria for judgement, especially for those consumers guided more by hedonic and experiential motives rather than utilitarian motives (Yeung and Wyer, 2004; Adaval, 2003). The third diagnosticity determinant, the 'trustworthiness' of feelings, is exactly what it says – the extent to which consumers trust their feelings when it comes to a task, a decision or a choice to be made. It is more individual specific and reveals how much consumers believe that their feelings indicate a right direction in judgements. But, do individuals always trust their feelings? Do they often rely their judgement on them? The answer is no, this is not always the case.

The level of trust in feelings depends on the two following factors: the general impression regarding the trustworthiness of feelings and the social or cultural environment. For those

individuals considering their feelings as trustworthy, they are under the impression that their feelings point out the right direction towards a choice, which will result in higher satisfaction. This impression is formed throughout the personal history of past success or failure when relying on feelings and it determines the level of the trust. Individuals experiencing more positive situations and successes when relying on feelings in past judgement, enhance their trust and they consider them as a significant informational source. The opposite holds for those experienced frequent failures, and therefore, they perceive their feelings as a totally unreliable source of information. The second source is the social or cultural environment in the sense that certain environments encourage or discourage norms about the level of reliance on feelings.



Graph 2: Feelings as Information Sources (Avnet *et al.*, 2012)



The pertinent literature so far implies that consumers pay attention to their feelings as a source of guidance during the decision – making process (Avnet *et al.*, 2012; Schwarz and Clore, 2003; Salovey, Mayer, Goldman, Turvey and Palfai, 1995), however, interesting enough is the fact that different positive or negative affective states drive people to make different choices (Diener and Chan, 2011; Kahneman, Krueger, Schkade, Schwarz and Stone, 2006; Schwarz, 1990). Happiness, for instance, is one of the most popular emotions and many researchers from economics, sociology and psychology try to identify the best way to capture it, measure it or increase it. Previous evidence appears conflicting so far; findings suggest that happiness has exactly the same meaning to all individuals (Layard, 2005; Myers and Diener, 1995), whereas other suggest that its meaning is highly subjective (Gilbert, 2006). However, a third stream of research supports the view of multiple types of happiness depending on culture (Tsai, Knutson and Fung, 2006), on age (Molignier, Kamvar and Aaker, 2011) and on temporal focus (Carstensen, Isaacowitz, and Charles, 1999).

The cultural background mainly determines the way happiness is experienced. When it is experienced as a positive effect of high arousal, it provides the feeling of excitement, enthusiasm and elation, whereas as low arousal provides the feeling of calmness and serenity (Russell and Barrett, 1999; Bradley and Lang, 1999). Through cultural lens, the specific type of happiness is apparently influenced by prevalent cultural factors, such as religion, literature, communication norms and child rearing styles. Interestingly enough, the way it is experienced has a powerful influence on judgement because is reflected on choice in various ways (Mogilner *et al.*, 2012). For instance, happy consumers tend to be more optimistic than others (Wright and Bower, 1992), and as a result, they assess a target more favourably (Adaval, 2003; Meloy, 2000; Isen and Shalcker, 1982), they are more likely to engage in a heuristic processing (Schwarz and Clore, 1983), they are more

creative when it comes to problem solving (Isen, 1999) and they think abstractly instead of critically analysing the target's attributes (Labroo and Patrick, 2009). The decision-making process becomes easier as the decisions are made faster (Isen and Means, 1983), the choices seem to be healthier (Lyubomirsky, Sheldon and Schkade, 2005), less risky (Isen and Patrick, 1983) and inferred from a wider variety of options (Kahn and Isen, 1993) compared to those choices of the less happy consumers.

In addition to the cultural background, age has also a direct effect on happiness and judgement. Previous research has revealed that as individuals go through different life stages, the experience of happiness changes from excitement happiness when they are young, to peaceful happiness when they get older. The younger ones tend to extract happiness from the anticipation of future activities and pleasures, whereas older individuals focus more on the present moment due to the fact that their future is less expansive (Carstensen, Isaacowitz and Charles, 1999). In this case, age seems to be more of a signal of temporal focus, rather than age per se.

The second popular emotion state is sadness and its influence on judgement seems to be even more powerful (Raghunathan and Pham, 1999; Schwarz, Bless and Bohner, 1991; Gallagher and Clore, 1985; Isen *et al.*, 1978). It is commonly perceived as the loss of an important person or object or reward (Roseman, 1991), and it affects judgement through three major ways; (i) by colouring the content of the personal thoughts (Gorn, Goldberg and Basu, 1993; Johnson and Tversky, 1983), (ii) by altering the decision-making process (Ellis and Ashbrook, 1988), and (iii) by shaping the decision maker's incentives.

Under negative affective states, such as disappointment and sadness, the personal thoughts, perceptions and judgements are distorted with even greater level of negativity, which is explained due to valence content in memory. The experience of a negative state immediately activates this part of memory where all the negative

experiences/feelings/pictures are stored, which results in evaluating a product target or an experience more negatively than it actually is, even if the decision to be made is not associated at all to the source of the negative state. The ability to process the relevant information to the decision is reduced, often due to anxiety, and inevitably, the decision-making process is altered. The source of this anxiety is usually the lack of certainty or control over a situation, so the implicit goal is expected to be the decrease of the risk in the future.

#### 2.2.2. Prior Knowledge

Emerging evidence indicates that consumers' evaluations are highly associated with prior knowledge (Schwarz, 2004; Alba and Hutchinson, 2000; Higgins, 2000; Bettman and Sujan, 1987; Moore and Lehmann, 1980) and different levels of it are likely to affect preferences accordingly (Trope and Liberman, 2003). The presence or the absence of relevant prior knowledge to the content presented enhances or lessens the impact of a message (Hong and Sternthal, 2010; Alba and Hutchinson 2000) and affects the way information is processed, as well as, the heuristic used. Its meaning consists of how much individuals know about a product target (Gardner, 1985; Park and Lessig, 1981), the amount, type, or organization of information stored in memory (Kanwar, Olson, and Sims, 1981; Russo and Johnson, 1980; Staelin, 1978) and the level of previous purchasing or usage experience with the target (Marks and Olson, 1981; Monroe, 1976). Such information is easily accessible and it is extracted from two different sources; the external environment (Kardes *et al.*, 2014) and the individual's memory (Hong and Sternthal, 2010; Bettman, 1979). All the information available in the external world including packaging, brochures, catalogues, advertisements, online sources, word of mouth, store displays, and in-store is seen as a stimulus with great impact on decision, which depends on the task at hand. However, all the information stored in memory follows a more complex procedure

and previous research has underscored the importance of investigating into this at a deeper level.

The availability (Menon and Raghubir, 2003; Tversky and Kahneman, 1973) the accessibility (Novemsky, Dhar, Schwarz and Simonson, 2007; Tybout, Sternthal, Malaviya and Bakamitsos, 2005; Lee and Aaker, 2004) and the organization of information in memory is related to decision-making processing (Brucks, 1985; Johnson and Russo, 1984; Lynch and Srull, 1982). More specifically, the perceived ease with which the relevant information comes to mind exerts a consistent influence on behaviours and judgements (Menon and Raghubir, 2003; Bargh, Chen and Burrows, 1996), especially when this information is readily accessible, which depends on its allocation in memory ( Craik and Lockhart, 1972). The decision difficulty arising from attribute trade-offs (Lurie, 2004) is highly associated with different levels of processing and different levels of prior knowledge. More complicated tasks require higher level of processing which results in higher memory capacity for storing longer lasting information, whereas less capacity is needed for less complicated processing. Each time prior knowledge is used in a specific task, only a part of the information stored is activated for a current processing, which means that not all the available information is always accessible. However, if the right part of information is accessed, all the familiar stimulus arises giving the impression of 'feeling right' about the final choice (Camacho, Higgins and Luger, 2003), which instantly makes the choice set more focused and the decision-making process faster. This is the stage where the recall of information takes place and the familiar stimuli have a direct influence on judgment.

Previous research provides evidence that differences of prior knowledge levels result in differences on behaviours and attitudes towards a target (Wood and Lynch, 2002; Schraagen and Leijenhorst, 2001). High levels of prior knowledge enable automated information processing (Larkin, McDermott, Simon and Simon, 1980) which speeds up the

decision-making process without a loss in the quality of performance (Chi, Glazer and Rees, 1982). Highly knowledgeable consumers are characterized by rapid problem recognition (Prerau, Adler and Gunderson, 1992) which is the most important element of the process, by less extensive memory search and by being more selective towards the piece of information for evaluating a target due to easier identification of relevant or useful information (Johnson and Russo, 1984). They tend to be attracted more by messages referring to the target's attributes instead of the benefits, they ask more focused and efficient questions (Miyake and Norman, 1979) and they do not conduct any external search (Moore and Lehmann, 1980; Anderson, Engledow and Becker, 1979), as they are already aware of the existing target features (Brucks, 1985).

On the contrary, inexperienced consumers follow a totally different path. Lower levels of prior knowledge indicate that there are not any relevant heuristics stored in memory, which does not help any new information to be processed with great ease. It is a slower procedure as a lot of time and effort is spent to develop quality standards and criteria and it includes the evaluation of various external sources of information in high detail (Chi, Glaser and Rees 1982) and several comparisons among alternative options (Mitchell and Dacin 1996), instead of focusing on the most useful attributes only. They tend to rely more on extrinsic cues since there is only little intrinsic information available in memory, however, as their familiarity with a target increases, the ability to evaluate quality based on informative intrinsic attributes gradually improves. This, not so efficient, strategy sometimes results in significant lack of motivation (Bettman and Park, 1980) and is negatively associated with purchase intentions.

### 2.2.3. Cultural and Social Environment

Material goods have a significance that goes beyond their utilitarian character and it rests mainly in their ability to carry and communicate cultural meaning (Hirschman, 1980;

Sahlins, 1976). Culture is the 'lens' through which individuals view various phenomena and it determines how these phenomena are apprehended and assimilated. It is also the 'blueprint' of human activity, determining the co-ordinates of social action and productive activity and specifying the behaviours and objects deriving from both. As a lens, culture determines the way the external world is perceived whereas as a blueprint, it determines how the world is fashioned by human effort. In short, culture constitutes the world by supplying it with meaning, which is characterized in terms of two closely related concepts; cultural categories and cultural principles.

The cultural categories refer to the basic distinctions every culture uses to divide up the phenomenal world, such as time, leisure, working time, the natural and supernatural world, and those developed in the human society, like class, status, gender, occupation and age (Kardes *et al.*, 2014; McCracken, 1986). Material goods are seen as an opportunity to express the categorical scheme established by a culture and to develop culture material (Levy, 1981). Like any other species of material culture, goods enable individuals to discriminate visually among culturally specified categories by encoding these categories in the form of a set of material distinctions. Categories of person divided into parcels of age, sex, class, and occupation are represented in a set of material distinctions by means of goods. The cultural principles, on the other hand, represent the values that determine how the cultural phenomena are organized, evaluated and construed and they find expression in every aspect of social life, goods not least of all. When goods show a distinction between two cultural categories, they do so by encoding something of the principle according to which the two categories have been distinguished. Clothing, for instance, that distinguishes between men and women or between high and low classes, reveals something for the nature of the differences that are supposed to exist between these categories. All these cultural environments exerts have the broadest influence on

preference as it is the most important cause of an individual's attitudes and behaviour. Growing up in a society all the basic principles, values, desires and behaviours are learnt from family and other important institutions. These cultural dimensions form specific behaviour patterns which affect the consumption motives and set the choice criteria in combination with other factors (Henry, 1986).

At the same time, the social environment has the same influence on consumer responses during the decision-making process. There are specific two types of social groups within this environment that exerts the influence on preferences; the membership group and the reference group. The membership group is the one with the direct influence on behaviour and family can be definitely seen as such a group. The membership group of family is distinguished into two different categories; the family of orientation and the family of procreation. The first category includes the consumer's parents, who provide a specific orientation towards self-esteem, ambition, politics, economics and religion from the very beginning of an individual's life, and they form a positive or negative attitude towards a certain direction. On the other hand, the family of procreation includes the individual's spouse and children, in which the change of roles is of high importance. Within a family, an individual has more than one roles, they can be the buyer and the user of a product, or the influencer, the user but not the buyer at the same time. The reference group, in next, has a direct or indirect influence on the individual's attitude and this is the one that a consumer wishes to be part of. Taking into consideration that both types of groups are always incorporated into people's lives, consumers are exposed to new behavioural patterns, new attitudes, their self-concept is significantly affected, and they usually make specific product choices due to social acceptance reasons.

The desire of gaining social acceptance leads consumers to buy, use, display and consume specific types of goods in order to gain social status (Scitovsky, 1992),

regardless of their income and social class level (Eastman, Goldsmith and Flynn, 1999). The main idea here is that the utility is measured by the social advantage the product target offers and the social status it confers on the consumer in the eyes of significant others. The reason underlying this behavioural pattern is that status is seen as a source of power consisting of consideration, respect and envy from others and previous research has shown that people devote a lot of time, effort and energy to acquiring it indeed (Barkow, 1992). Through the consumption of products with symbolic uses (Levy, 1959), consumers try to enhance their self-esteem, show what they feel and think, and bring about the types of social relationships they wish to have (Braun and Wicklund, 1989). This is what is defined in the literature as 'conspicuous consumption' (Veblen, 1953) or 'status consumption' (Scitovsky, 1992), which refers to the practice of product use as signal for status inspirations to others (Mason, 1981). Individuals always strive to improve their life and their social standing as is a part of their human nature, and after satisfying their basic needs, they seek for distinction and recognition within their social environment. As such, their consumption habits change as they go through life and often choose to spend a significant portion of their income on products conferring status to show they are successful (Dawson and Cavell, 1987). As described, people's tendency to consume these goods increases because doing so, is expected to provide the opportunity for gaining social acceptance.

#### 2.2.4. Personal Factors

Individuals change the goods they consume over their lifetime. Preferences shift with age, occupation, recreation, lifestyle and economic situation through life. Personality is one of the most influential factors of consumer preferences. It is defined as all the psychological characteristics leading to relatively and lasting responses to the environment. In terms of traits, it is described as autonomy, sociability, self-confidence, dominance, and



defensiveness (Kardes *et al.*, 2014). The general concept is that consumers are keener on choosing particular products that somehow match their personality. That's why marketers use a concept related personality when developing certain brands. For example, coffee makers have discovered that one of the main persona characteristics of heavy coffee drinkers is their tendency to be more sociable. Thus, Nescafe advertisements show situations in which people are gathered together over a cup of coffee. However, this is a general and more abstract picture. The personality as a factor is much more than that. Underlying unconscious motives affect the way situations are perceived which has a direct impact on preferences in ways that often not even the buyer is able to understand.

The effect of personal factors on consumer preferences is a very hard element to capture and many past attempts to explain and predict behaviour by using personality variables were unsuccessful (Engel, Blackwell and Miniard, 1986; Wells and Beard, 1973) due to the fact that important differences between situations and stimulus conditions providing support for a personality variable in research have been ignored so far (Kassarjian, 1971). That's the reason why not all personal factors have been sufficiently explored, but reliable results have been extracted only for two; the self-monitoring (Snyder, 1974) and the need for cognition (Cacioppo and Petty, 1982). Self-monitoring refers to different kinds of persuasive appeals that show to interact with individual differences in determining the extent of the potential persuasion, whereas the need for cognition is considered as a motivational factor which suggests that consumers expending more cognitive effort in assessing any incoming messages. This personal variable is of crucial importance as it partly determines individual's attitude towards a target through a specific process. High cognition is associated with the feeling of familiarity and confidence towards more complicated choice tasks (Cacioppo and Petty, 1986) and with effects on attitude and judgement towards a target, especially in situations where individuals have the motivation

and the ability to assess the incoming message argument. Being confident about the interpretation of the message, the feeling about the cogency of the related information becomes an important determinant of persuasion. On the contrary, low need for cognition individuals although tend to avoid effortful cognitive work, are not characterized as unable to differentiate cogent from specious arguments, but rather they typically prefer to avoid the effortful work required to derive their attitudes based on the merits of arguments presented.

#### 2.2.5. The Word-of-Mouth Effect.

Consumer behaviour researchers have provided evidence that the *Word of Mouth* (WoM), which is defined as ‘all the informal communications directed to other consumers about the ownership, usage, and characteristics of particular goods and services or their sellers’ (Westbrooke, 1987), has a direct impact on purchase intentions (Hennig-Thurau, Gwinner, Walsh and Gremler, 2004; Lau and Ng, 2001; Richins and Root-Shaffer, 1988), on consumer expectations (Anderson and Salisbury, 2003) and attitudes (Herr, Kardes and Kim, 1991), and on post usage product evaluation (Bone, 1995; Burzynski and Bayer, 1977). The main idea behind is that consumers often base their decisions on their recommendation-heuristics for obtaining the necessary and useful information only and reach the final decision faster (Olshavsky and Granbois, 1979). This process is entirely based on someone’s positive or negative recommendation and its consequences occur in the behaviour of those who receive it.

There are various mediating factors between WoM and purchase intention mainly referring to (i) the closeness of the sender’s and receiver’s relationship (Brown and Reingen, 1987), (ii) the sender’s perceived expertise (Bansal and Voyer, 2000) and to (iii) the sender’s and receiver’s demographic similarity (Brown and Reingen, 1987). The WoM sources are almost exclusively, personal sources of information (Duhan, *et al.*, 1997; Kuehl and Ford,

1977) and the higher the level of their closeness, the stronger the influence on judgment. The personal sources of information are usually perceived as more reliable and credible (Rogers, 2010) due to the fact that the decision maker can be provided with more custom-tailored options to their preferences and due to the level of trust between those (Coleman, 1990). Hence, consumers do not waste time and effort to gather extraneous information from multiple sources (Olshavsky and Granbois, 1979), they do not include incompatible product targets to their personal tastes and they reduce the potential level of risk (Luhmann, 2000) especially in situations that the task difficulty is quite high (Jacoby, Speller and Kohn, 1974).

The second main factor refers to the level of expertise of the recommendation source and it occurs only when consumers lack relevant knowledge and experience towards a product target, or when this target is quite complex or when its benefits are not easily observable (Rogers, 2010; Robertson, 1985). When this lack of knowledge becomes apparent, the feelings of discomfort, risk and uncertainty are developed which instantly make the opinion or recommendation of others much more valuable. On the contrary, high knowledgeable consumers feel confident about their decisions, they are able to assess the target's benefits and costs, and they do not rely on others' input.

The last influencing factor lies on the demographic similarities between the recommendation source and the decision maker (McPherson, Smith-Lovin and Cook, 2001; Laumann, 1966) and they are measured in terms of sex, education level, age and occupation. It suggests that individuals that share more demographic similarities tend to communicate easier and positively affect each other (Brown and Reinger, 1987; Feldman and Spencer, 1965). The messages between sources with similar characteristics become more interesting and influential, especially when a higher level of confidence and trust is required.

Although the main underlying factors play a key role to the overall impact of WoM on consumer preferences, the content of the recommendation is what matters most. The positive and the negative WoM seem to exert significant influence on purchase intentions, however, the level of their influence is not equal. Consumers weight more the negative recommendations (Richins, 1983; Mizerski, 1982; Wright, 1974) which also appear to be more influential compared to the positive recommendations (Haywood, 1989; Arndt, 1967). Several reasons may explain this phenomenon; the negative WoM is not as common in everyday life as the positive or neutral WoM (East, Hammond and Wright, 2007) which makes it to be considered as more useful (Fiske, 1980), it usually stands out as more surprising which increases its impact, and a negative message always has fewer attributable causes which makes it more believable (Skowronski and Carlston, 1989).

Besides the traditional way of WoM, the rapid development of the Internet has given the opportunity to consumers to express their views, experiences, attitudes, knowledge and beliefs towards a product target, online. This is defined in the pertinent literature as the *electronic Word of Mouth* (eWoM) and the main difference from the offline world lies on the quantity of the available online information which is much more extensive, easily accessible, and it includes positive and negative recommendations from multiple sources simultaneously (Chatterjee, 2001). There are several motives explaining why the use of the eWoM is so popular among consumers and they can be divided into three main categories: (i) the self-involvement motivations, (ii) the product involvement motivations and (iii) the other involvement motivations. The first category includes all the motives related to consumers themselves, mainly referring to the perceived risk reduction which works exactly the same way as with the traditional word of mouth, and the reduction of the time searched referring to the effort for reducing the time needed to consider many different product targets due to the lack of available time (Dhar and Nowlis, 1999). The

product involvement motivations suggest all the available information about new products entered the market recently and the way these products are consumed due to novelty and curiosity as part of the human nature.

The influence of the eWoM is not always that strong though, especially when the positive or negative recommendations come from strangers that are not considered as trustworthy interpersonal sources. In addition, the conflicting information from many sources at the same time often results in dissonance and consumers experience negative emotions, such as confusion (Sweeney, Hausknecht and Soutar, 2000) or overload. Under these circumstances, consumers do not develop favourable purchase intentions and the purchasing possibility decreases substantially.

#### 2.2.6. The Traditional Model of Decision Making

All consumer needs are not alike. Sometimes, a consumer should make a low involvement decision when there is not emotional attachment with a target, or a high involvement decision, when the decision is perceived of high personal importance and involves a lot of uncertainty. Life changes influence perception, human minds mature with age, people's relationships change, and consumer's preferences shift accordingly. The model of decision making in the consumer behaviour field puts the consumer in the heart of the analysis, and more importantly, examines every single stage of the process. Many factors are taken into account simultaneously, as different emotions, desires and needs occur at the same time. Important to note that marketing is designed to identify and satisfy consumer needs and desires, not create them from the scratch. Marketing activities can remind consumers of their deprivation and offer a variety of choices to satisfy a need. In other words, marketing research strives to provide answers about (1) what the consumer already has; (2) what they desire; and (3) how this particular need was created in the first place. The traditional decision-making model in marketing describe the consumer's

journey in five different stages in total, taking into consideration each factor occurring at each stage.



Graph 3: Decision Making Process (Engel, Blackwell and Miniard, 1995)

**Problem Recognition.** This is the initial stage of the decision-making model. At this point, a comparison is made between what is perceived as desired state and what as actual state. If the gap among these two is substantial and solvable, the problem recognition occurs along with the motivation to reduce it (Kardes *et al.*, 2014). The more significant the gap is, the more motivated the consumer is to satisfy their needs and to bring the actual and the desired state into balance. The problem recognition stage is undoubtedly the most important and difficult phase of the decision-making process due to the recognition of the real source of the problem and to identification of the reason the problem was created. In case this process is unsuccessful, satisfaction does not occur and the redefinition of the initial problem is necessary. The next logical step is to make all the actions required to reach the final decision and satisfy a particular need. However, this is not always the case. Under certain conditions, consumers may take no action at all due to four different factors; lack of motivation, low personal relevancy of the problem, lack of available resources and lack of knowledge (Bruner and Pomazal, 2013). When the gap between the actual state and the desired state is not significant, consumers are not motivated to take any further action because of an insufficient discrepancy. Also, the resolution of the problem might never occur when the problem recognized is of low

importance or not so relevant compared to the other issues. The lack of available resources is often related to the discontinuation of the decision-making process, as individuals do not afford buying the goods requires for reducing the discrepancy. Last but not least, it is very likely that the lack of relevant information prevents consumers from proceeding with a specific product they can afford because they simply lack the knowledge.

On the other hand, the traditional microeconomic theory of choice focuses only on the actual fact that consumers have needs and ignores why, how, when and under what circumstances these needs are formulated. The commodity orientation assumption which is widely used in economic models assumes that consumers come to the market with well-defined needs and desires (Ackerman, 1997), so every factor that affects and creates the needs is still missing. Only monetary factors, such as prices, quantities and incomes cannot explain accurately the consumer behaviour.

Information Search. When the problem recognition occurs, a pre-purchase search takes place. At first, all the relevant information is gathered through personal experiences, long-term memories and past usage (internal search). In case a low involvement decision only is necessary, this might be enough to solve the problem. However, in case that the problem requires a high involvement decision and internal search fails to provide sufficient information, external search takes place. The external search includes gathering information from various sources, such as personal sources (friends, family, acquaintances), market sources (advertising, communication, salespeople, retail catalogues, promotion), web sources (customer reviews, promotions, social media, e-commerce), and product trials (Kardes *et al.*, 2014).

Marketing research suggests that any differences in personal experiences, age, educational level and income level influence, to an extent, the pre-purchase search.

Younger and better educated consumers are keener on spending more effort and time for collecting the necessary information. Income and wide price ranges are extra motives for conducting extended search. The main purpose of this process is to collect problem-solving information, however the data accessibility and the time constraint influence consumer's evaluation, as external search requires time and effort. This is a potential explanation of why a consumer experiences distress or other negative emotions when they select among too many choices in the market (choice overload).

In contrast with marketing research that examines a lot of factors taking place at the same time when gathering information, economic theory does not focus on this stage at all. Economists assume that the consumer comes to the market with perfect information about all the potential combination of goods available, and therefore, the information search stage is not considered (commodity orientation assumption). Moreover, the rejection of the interdependence assumption between individuals and the social environment remains problematic, as it suggests no association at all with any kind of social stimuli like family, friends, word of mouth, advertising, promotion etc., so consumers should act independently (Ackerman, 1997). This statement is not applicable in reality as consumers are human beings and not totally autonomous and isolated units from the society. Hence, economic models cannot provide accurate results and predictions when factors that determine purchasing behaviour to a great extent, are not considered at all.

Evaluation of Alternatives. Consumer's motive is straightforward; to make the best purchase decision. After collecting all the relevant information, comparing the potential alternative choices is the next step. At this point, all the familiar brand names and attributes are considered, compared and contrasted, which usually result in a short list of desired commodities. However, the inability to accurately predict how much a target is desirable will always be seen as a source of risk and uncertainty.



Economic theory suggests a different point of view when it comes to alternative products. The key factor is one and only; price. The rational consumer is expected to choose this bundle that provides the maximum amount of satisfaction under a specific price. In case prices rise, the preference is expected to shift as well and the evaluation of alternative bundles, or 'substitutes' as called in economics, takes place. The aim is not to reduce the extracted amount of utility with the minimum cost. Even though this theory has merit at a first glance, monetary factors only cannot be sufficient enough.

Purchase Decision. It contains a lot of risk and uncertainty. The incomplete information about all material goods offered by the market, the failure to update the relevant information, the unawareness of all the attributes and the inability to predict how consumers themselves will react after a purchase suggest main sources of uncertainty. A two-stage selection process follows; consideration and choice. In the consideration stage, a simple, binary decision is made. For example, 'I want to drink a freshly squeezed orange juice' versus 'I want to drink nectar juice'. In the main choice stage, they select the object containing the best attributes compared to the others. The product that is closest to the ideal combination is the final choice.

The optimal choice in economic theory, even though it focuses on consumer's satisfaction, is defined in a totally different way. The bundles containing the maximum quantity without exceeding the available income under a specific price, is the answer to the ideal situation. Product attributes, potential brands or consumer's personal tastes are not mentioned at all as they are considered as exogenous variables.

Post-Purchase Evaluation. This is the final stage of the decision-making process. After the final decision is made, post-purchase evaluation occurs. At this point, the consumer makes a comparison between the actual experience and the pre-purchase expectations about product's performance (Spreng, MacKenzie and Olshavsky, 1996). When the product's

performance meets or even exceeds the expectations, the consumer is fully satisfied with their choice and the problem is sufficiently solved. Now they are able to continue choosing this particular product in the future to cover the same need with more confidence and less uncertainty. However, the level of satisfaction they experience is based, to a great extent, on the type of the prior expectations. When the product meets the desired expectations (how performance should be) satisfaction and positive emotions occur, whereas when the performance is exactly what was predicted (predictive expectations), the consumer tends to be more indifferent than satisfied (Swan and Trawick, 1979). In the unlikely event that the overall product experience is rather negative and does not meet the pre-purchase expectations, the emotions of disappointment and regret occur (Inman, Dyer and Jia, 1997). As disappointment takes place due to the poor product's performance, the comparison with the alternative options rejected during the process creates regret. In such a situation, the consumer is characterized as dissatisfied and the return to the 'evaluation of alternatives' stage for seeking another option or even to the 'problem recognition' stage again for redefining the initial problem, is necessary.

It is obvious that expectations is the most important determinant for the final evaluation, and hence, the way they are formed is of high importance. Previous studies have shown that any level of prior knowledge and experience with a product, the information communicated by reference groups like observation or word of mouth, and the exposure to the marketing strategies like advertising, pricing, etc., are the main ways that set a reference level of expectation in consumer's mind. Since expectations are so important, marketers should create consistent expectations with the actual product performance, in order to minimize the chances for having dissatisfied consumers. That would be the ideal situation.

### 2.2.7. Need for an Interdisciplinary Approach

Consumers constantly make decisions. These decisions are not always easy to make. Very often, they face a large number of alternative choices which are changing as a result of the technological advancements and the intense competition. The selection of the information sources is often confusing and the lack of knowledge about the potential target's performance might create uncertainty. Finally, facing value trade-offs, like price versus quality, makes the task even more difficult to process. Due to the complicated nature of the subject, researchers from different disciplines such as psychology, sociology, economics, consumer behaviour research, marketing etc. have made a significant effort to investigate what motivates consumers and how they actually behave. In the following, the focal point is the main determinants of consumer behaviour from the marketing and microeconomics perspectives only. It is essential to develop an interdisciplinary theory which is comprehensive, broad based and as closer to reality as possible.

Even though the microeconomics approach and the marketing approach have substantial differences when it comes to consumption, the aim is always the same; consumer's satisfaction. However, each stream of research approaches satisfaction from different viewpoints by using different tools and including different factors and variables. For economists, consumer satisfaction is the ideal situation in which the maximum amount of value is gained from the use of a product with the minimum cost and effort. If the final choice is in accordance with this relationship, then consumers experience satisfaction and only an increase of income or quantity can improve matters. In other words, the more utility gained, the more satisfaction is extracted. However, previous research shows that decision makers do not always make the choice with the highest subjective expected utility (Beach and Connolly, 2005) due to the fact that their preferences are not always well ordered (Ackerman, 2002; Becker, 1962), and therefore, they often behave in ways that

violate the axiom of rationality (Slovic and Tversky, 1974). The economic theory of choice as explained before, appears to be a poor descriptive model, which is not considered as appropriate to predict behaviour and it is more valid and suitable for describing a general central tendency rather than individual choice (French, Maule and Papamichail, 2009) as any individual characteristics are not taken into consideration. Better predictions are likely to result from models based on more realistic assumptions.

Although the concept of satisfaction and utility is also used in the consumer behaviour context, its interpretation slightly differs. For marketing researchers, satisfaction is not a purely cognitive evaluation, but a situation in which a product target is considered as ideal or important or special and consumers derive pleasure. The utility is the outcome of the comparison among the prior expectations and the product's performance, so the post-purchase stage is of high importance as it determines the satisfaction level. In general, marketing researchers and practitioners have traditionally been interested in satisfaction because happy consumers continue to purchase products exceeded their prior expectations and often influence the perception of others with whom they communicate through the positive Word of Mouth procedure (Hennig-Thurau, Gwinner, Walsh and Gremler, 2004; Lau and Ng, 2001; Richins and Root-Shaffer, 1988).

Each perspective uses different tools and models in order to 'measure' satisfaction and to predict consumer's choice. In the marketing context, a more consumer-centric approach is adopted and every determinant that may affect judgement is included and examined. The focal point here is preference or alternatively, personal tastes, as it is the primary driver. However, in order to fully understand and explain behaviour, researchers try to examine how preferences are formed in the first place. Personal factors (age, education, lifestyle, economic situation), psychological factors (emotions, opportunity cost), and cultural/social factors (subculture, reference groups, trends, status) are only a few that are

used in constructing preferences. Preferences in combination with other elements, such as marketing mix strategies, prior knowledge, word of mouth etc. give more useful insights when dealing with complex decisions in real life. The microeconomic theory of choice on the other hand, suggests that each consumer has their own subjective utility function reflecting their own personal tastes. The consumer cannot be tricked by how a set of options is framed, they know exactly what they desire, how much they desire, they are able to rank the options they might have and their preferences cannot be affected at all by the set of options from which they are allowed to choose. Obviously, this approach does not investigate into how preferences are formed, but they are considered and treated as an exogenous variable. Price, income and quantity are the only drivers, and opportunity cost is also an element that should be applied in every task.

These monetary factors are also included in the marketing models of decision making, but the main difference is that each stream of research has its own approach. Prices and incomes, for instance, always consist the most famous picture in economics; the demand concept. An income increase is expected to motivate consumers to buy upper goods, whereas a price decrease should result in higher demand as the consumer always acts rationally. Although, this might be true in terms of aggregate demand as it describes well a central tendency, when it comes to individual consumption, this axiom is violated. Contrary to the microeconomic theory, consumer behaviour research focuses on the psychological effect of a price change or an income change and they way is linked to a shift in consumers' preferences. A price reduction does not necessarily mean an opportunity to ask for more units, but it may affect in a negative way the perceived image of a product target. For some of us, lower price levels are translated in poor quality, poor service, fewer chances of social acceptance and so on. The way a specific price level is

characterized as affordable or quite low, or extremely high, is mainly subjective. Exactly the same is also applicable when it comes to income.

Opportunity cost is also a common element in both disciplines; in marketing, it is considered as a preference determinant, whereas in economics it is supposed to directly affect consumer behaviour and purchase intentions. For economists, opportunity cost should be considered and consolidated into every decision, and even more intensively, as the consumer goes through experience in making choices. For marketing researchers though, opportunity cost is seen more as the loss of an alternative choice rather than the value of the money itself (Spiller, 2011). So, the focal point here is not the way the amount of money spent should be used differently to provide more utility, but what a consumer loses in terms of satisfaction should they choose another alternative option. This seems to be true in most cases as described in previous sections, due to the fact that consumers usually neglect the opportunity cost (Frederick *et al.*, 2009), or they consider it under certain conditions only.

In an ideal world, every product and service would be delivered flawless. However, sometimes a target does not perform the way it was expected, and therefore, dissonance occurs. Since it is a rather common situation in the real world, it is interesting to approach satisfaction from the opposite point of view and understand what situation a dissatisfied consumer experiences. Cognitive dissonance (assimilation), contrast, generalized negativity and assimilation-contrast are the main theories describing these unpleasant situations (Anderson, 1973).

The cognitive dissonance approach suggests a consumer who experiences negative emotions as a result of the disconfirmation of their prior expectation and they try to change the initial product performance in order to decrease the disappointment level (Oshikawa, 1968; Brehm and Cohen, 1962; Festinger, 1962). The consumer is seen as an individual

with cognitive elements and knowledge about their values, attitudes and past behaviour. This way, the emotional tension and mental discomfort are reduced and interestingly enough, the stronger the feeling of dissonance, the stronger the motivation to reduce it. However, the way an individual reacts in such an unpleasant situation remains unpredictable and the cognitive dissonance approach is not applicable in every particular situation. The experience of negative emotions as a result of the disconfirmation of expectations is very likely to result in a very poor product evaluation, and sometimes in even more negative than it actually is. This is the central idea of the concept of the contrast approach and in fact, it suggests that the outcome of a deep disappointment experience is to underestimate even more a product and to magnify the gap. In the same line with this approach, the generalized negativity theory suggests that any disconfirmation of an expected result is very likely to be perceived as less pleasant or less satisfactory than if the prior expectations had been confirmed. Put it simply, when consumers expect a specific product performance, but the actual performance is different, the product target is seen as less satisfactory (Carlsmith and Aronson, 1963), due to the fact that they experience general negativity and they tend to make poorer evaluations. A final theory of consideration is the assimilation-contrast theory. As its name implies, it is the combination of the first two approaches and it suggests that when the gap between the prior expectations and the objective performance is rather small, assimilation occurs, whereas when it is substantial and wide, consumers react according to the contrast approach. These are the major ways of experiencing dissatisfaction at an emotional level. So the question is, do consumers turn these negative emotions into action? If yes, how?

The answer always depends on the circumstances. The most frequent action of those been dissatisfied is to complain personally in the market (Warland, Herrmann and Willits, 1975) and the common ways of complaining include the complaint letters sent to a

company, not paying for a product in store, personal complaint to the store manager, product return, complain letters sent to governmental services or making very negative recommendations to friends and acquaintances. However, there is a group of consumers that consciously choose to do nothing. The dissatisfied passive consumers as they are called, choose not to take any further action and stop buying the product they are disappointed with in the future due to lack of interest in continuing any procedure or due to lack of knowledge regarding the complaining process. It is interesting enough that these types of consumers share some common personal characteristics. According to previous research, the profile of those who tend to be easier dissatisfied is totally inconsistent with high dispersion, which means that it is difficult and quite risky to extract the average profile of those complaining. Younger women, for instance, who are economically and socially upscale appear to be more critical of marketing practices (Hustad and Pessemier, 1973), the older, poorer and less educated consumers tend to feel more negative towards business due to the fact that are not able to fully cope with everyday life (Coulson, 1971), but it seems that the most disappointed consumers come from all classes level, all age groups and from many different locations around the world (Gaedeke, 1972).

The utility maximization model in economics is a cornerstone of economic thought. Economists defend the use of this model by claiming that is an as-if model, since it predicts how consumers behave as if they were maximizing utility and this is the main reason why systematic violations of the standard model are observed in real life. Contrary to this approach, marketing frames include a broader range of determinants, both monetary and non-monetary, that do affect judgment and behaviour. Every situation is different, and therefore, the level of each variable's influence depends on the circumstances. There is a widespread recognition that consumer's attitude and behaviour are influenced by many different forces which bring into play concepts from a wide variety of disciplines, including

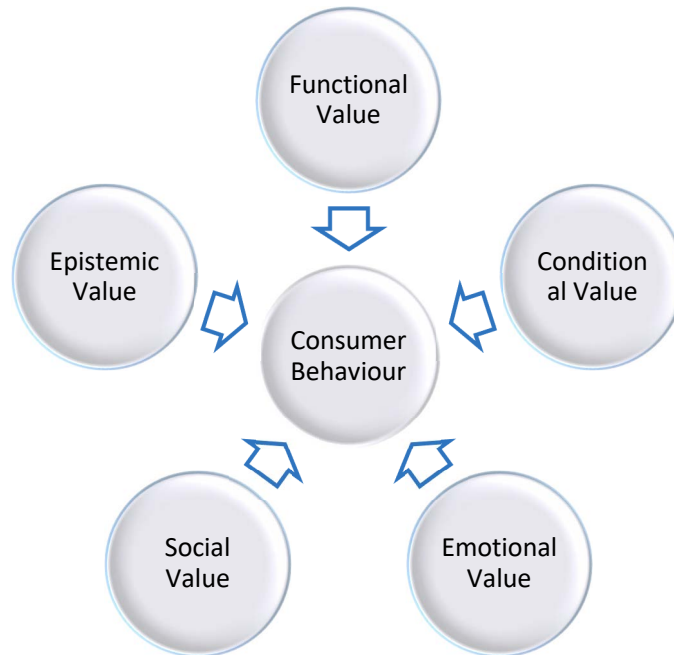


economics, marketing and consumer research. Due to the diverse nature of the subject, the development of an interdisciplinary approach that considers several aspects of the decision making process and focuses on potential contributions from marketing is needed, even if not all problems of consumer behaviour need to be treated interdisciplinary. In this context, Sheth, Newman and Gross (1991) made an effort to develop a broader and more applicable model including elements from both disciplines. According to their approach, consumers' judgement is inevitably affected by five independent consumption values; functional value, social value, epistemic value, emotional value and conditional value. These values are extracted from various aspects of economics, marketing and consumer behaviour fields and the level of their contribution depends on the particular decision problem (Sheth *et al.*, 1990).

The functional value is considered as the primary driver of behaviour according to economists (Juster, 1990; Stigler, 1950) and is expressed in terms of rationality. It represents the utility extracted from the product's performance and other attributes like price, durability and reliability (Ferber, 1973). Although the functional value is seen as a key influence on choice and is incorporated into every decision, the other value dimensions are also influential under certain circumstances. In next, the social value is mainly derived from the association with positively or negatively stereotyped, socioeconomic, and cultural groups. Consumers usually select visible products and goods to be shared with others for their social value they confer, even if they have excessive functional value as well, for gaining social acceptance and social status. This value is consistent with the concept of the conspicuous consumption (Veblen, 1899) which is the result of the interpersonal communication and information dissemination (Rogers, 1962; Robertson, 1967). The emotional value follows and is quite important, as products are frequently associated with emotional responses. Consumer behaviour is driven by non-

cognitive and unconscious motives and strong bonds with objects that have a special meaning for them are often developed (Dichter, 1947), even if the continuous use of a specific product target results in satiation and boredom sometime in the future. In this case, the evaluation of alternative products occurs for satisfying their need for curiosity, learning, innovativeness and variety at the same time. As such, the epistemic value is immediately extracted which is derived through these exploratory motives (Hirschman, 1980; Hansen, 1972). Last but not least, the *conditional value* is exactly what it says; it depends on the condition of a situation. It occurs when consumers gain the perceived satisfaction as a result of a specific set of circumstances. A lifetime journey or a wedding day are good examples of such a case.

Even though it is highly desirable to maximize all the values simultaneously, it seems that this is not practical and easily applicable at all. Consumers choose to accept less of one value in order to be able to obtain more of the others. These five values make different contribution in each situation, all of them can exist at the same time, or some of them only. For example, while functional and social value dominate the decision as to whether to use filtered or unfiltered cigarettes, emotional value is the key to the decision to smoke. Obviously, different value dimensions may be important depending on the decision level (buy or not to buy), the need emerged, as well as on the type of the product target being considered.



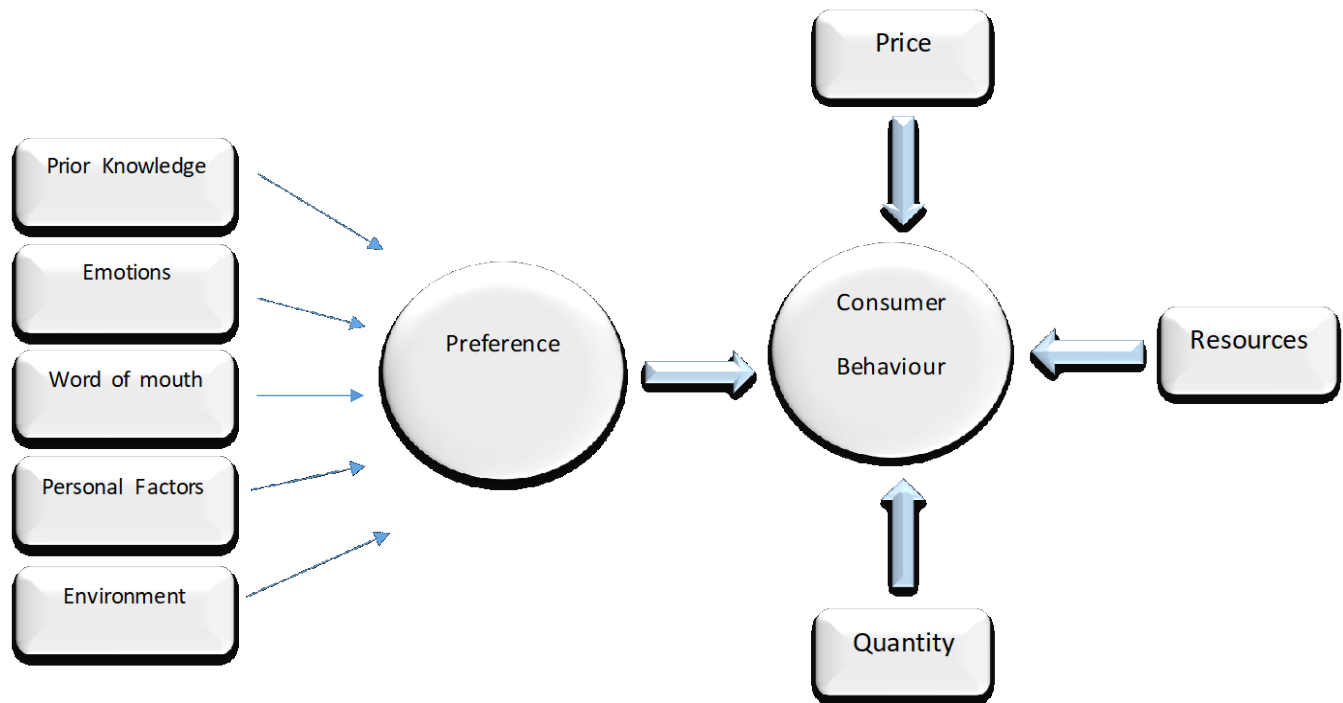
Graph 4: Values Influencing Consumer Behaviour (Sheth *et al.*, 1991)

## CHAPTER 3. CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

### 3.1. Conceptual Framework

Since different researchers have reached different conclusions regarding the association between purchasing behaviour and personal preferences, it is obvious that the actual relationship cannot be reliably inferred from the existing research. The purpose of the present study is to provide empirical evidence that clarifies clearly whether and how consumer behaviour is affected by personal preferences. Moreover, an attempt is made to explore the very nature of these preferences and their implications/influence during the decision-making process.

The present conceptual framework adopts the perspective that consumer behaviour can be predictable under the condition that a deep understanding of how preferences are formed is necessary. Firstly, it is suggested that various non-monetary factors, such as emotions, Word of Mouth, social/cultural environment, personal characteristics and any kind of prior knowledge/experience affect the way consumer preferences are constructed during an individuals' life, as well as, during the decision-making process. The next step is to identify what is the impact of these preferences in combination with the monetary factors like price, quantity and available resources on the purchase decision. Important to note that the impact of the influence of each factor is not fixed, but it depends on the task at hand.

Suggested Model:

Graph 5: Conceptual Framework.

## 3.2. Non-Monetary Factors and Preferences

Previous research has shown that any kind of familiarity with a product target is associated with certain behavioural patterns (Gardner 1985; Johnson and Russo, 1984; Park and Lessig 1981), it has greater impact on perception (Hong and Sternthal, 2010; Alba and Hutchinson 2000) and on evaluation (Rao and Sieben, 1992). All the information obtained by memory, previous use, word of mouth, or advertising consistent with the task at hand consist the definition of prior knowledge. Little prior knowledge leads consumers to rely more on the non-functional attributes of a target whereas higher level of familiarity changes the quality criteria, focusing more on the actual value (Marks and Olson, 1981). Different

levels of prior knowledge result in different outcomes; it can facilitate the problem solving, or it can result in a slower and more complicated purchasing process, or it can change the quality criteria and the emotion statement having a different impact on perception each time. These assessments are critical factors especially for the post purchase evaluation stage, which determines, to a great extent, the future attitude towards a target.

Based on this evidence, the following hypothesis is developed:

**H<sub>1</sub>:** Prior Knowledge towards a product target positively affects consumer preferences.

Individuals' everyday experiences are characterized by the complex interplay of emotions, cognition and decision making. Feelings influence how the features of a decision situation are evaluated in two ways; by recalling unconsciously all the consistent information with the current emotional situation towards a product target (Bower, 1981) and by using the emotional response to this target as the basis of judgement (Schwarz, 2000). In situations where consumers experience happiness, the product target is evaluated more favourably whereas the opposite holds they experience the feeling of sadness (Nygren, Isen, Taylor and Dulin, 1996). The sentimental situation has a direct impact on the current judgement, and it could not be otherwise, as relying on the emotions is part of our human nature (Schwarz and Clore, 1983).

The current study not only investigates in the way emotions interfere into the decision-making process, but also analyses their impact on judgement during the post-purchase evaluation stage. The key element here is one and only; expectations. When the product target performs differently than initially expected, various emotions occur affecting attitude. The positive or negative emotions at the post purchase evaluation stage result in shifting preferences and affecting future attitudes and behaviours towards the target.

On these grounds, the following hypothesis is developed:

**H<sub>2</sub>:** Emotions (positive/negative feelings towards a product target) positively affect consumer preferences.

Although the availability of the information sources nowadays is wide, their use is associated with different motivations. The current research focuses more on the personal recommendation sources (Word of Mouth) because they have a greater impact on judgement (Duhan, Johnson, Wilcox and Harell, 1997; Herr, Kardes and Kim, 1991; Richins, 1983). Actually, the closer the relationship to the personal source, the stronger the influence (Brown and Reingen, 1987), since they are considered as more trustworthy, reliable and consistent to the decision-maker's preferences. Besides this traditional way of recommendation though, Internet gives the opportunity to also obtain electronic Word of Mouth (eWoM) from others who had previous experience with a product target. This includes relevant information, other consumers' reviews, and sometimes, formalized ratings. There is sufficient evidence that consumers weight more the recommendation of this kind of sources and tend to adapt their purchasing behaviour after the exchange of communication with others regarding a target (Hennig-Thurau, Walsh and Walsh, 2003).

Based on the above, the following hypothesis is developed:

**H<sub>3</sub>:** Word of Mouth (WoM) regarding a product target positively affects consumer preferences.

Personal factors seem to have a direct impact on preferences. The key variable here is personality and the focus is more on how personality affects preferences, rather than what actually is. The theory of the 'self – concept' has gained much attention regarding this matter in the sense that individuals have an ideal self, translated into certain traits, abilities, hobbies, material possessions and much else (Kassarjian, 1971). The evaluation of someone's ideal self is reflected in their actions, in certain behavioural patterns and in

consuming certain types of desired products for improving their self-image. In addition, lifestyle, income, educational level and avocation are also some personal factors worth considering from a psychological perspective. Individuals strive for superiority by possessing more and more material goods or by being exposed to lavish lifestyles, as they want to feel less inferior to others.

Based on these arguments, the following hypothesis is developed:

**H<sub>4</sub>:** Personal Factors (such as personality, lifestyle) positively affect consumer preferences.

Consumers usually make unconscious or almost unconscious choices based on habits and attitudes acquired by the broader environment. These attitudes are often activated on the perception of a product target (Fazio, Powell and Williams, 1989), which essentially means that their behaviour and judgement are strongly linked to various environmental exerts (Bargh, 2002). The consumer's environment is a broad concept that includes all the social, as well as, the cultural environmental cues.

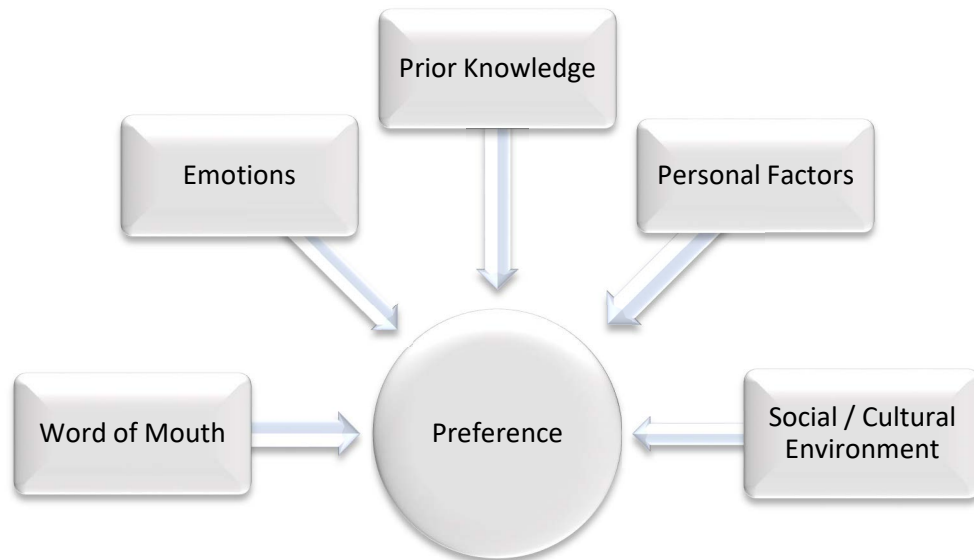
The social environment often leads to corresponding behaviour (Wheeler and Petty, 2001), due to the perception - behaviour link (Dijksterhuis and Bargh, 2001), which suggests that perception has a great impact on behaviour. As a result, individuals tend to imitate behavioural patterns from simple gestures, facial expressions and postures (Chartrand, Maddux and Lakin, 2005) to other peoples' actions (Uleman, Newman and Moskowitz, 1996) and targets (Hassin, Aarts and Ferguson, 2005). The same also applies when it comes to consumption. Consumers tend to adjust their behaviour by using reference groups from their social environment and to consume certain types of products on purpose. This process is either unconscious because imitation is part of the human nature, or percipient for gaining social status through certain lifestyles (Dijksterhuis, Smith, Van Baaren and Wigboldus, 2005).



At the same time, cultural patterns also have an impact on preferences through certain values, attitudes, principles and rules acquired from the cultural environment (Kardes *et al.*, 2015). Culture develops certain attitudes towards the way various stimuli are perceived, the way emotional responses occur and the way these are expressed (Kacen and Lee, 2002).

Based on the above arguments, the following hypothesis is developed:

**H<sub>5</sub>:** Social and cultural environment (such as reference groups, social approval, common values) positively affect consumer preferences.



Graph 6: Non-monetary factors affect preference.

Consumer decision - making occurs to a great extent outside of conscious awareness, affected by factors unknown to the decision maker. Preference is such a factor, which is constructed throughout the individual's life (Ackerman, 1997) and during the decision-making process (Novemsky *et al.*, 2007) and it consists of a mixture of personal factors, emotions, personal recommendations, specific task goals and motives from the social or cultural environment at the same time. It is a very complex concept and not easily captured

or measured due to its inconsistency (Thaler, 1980), to its highly subjective nature (Derbaix and Abeelee, 1985) and due to the fact that none of its constructive factors is relevant to the features of the product target. However, their contribution to knowledge is significant enough, as they provide useful insights regarding what motivates consumers to buy or not to buy, why a type of product target is chosen over another (Sheth *et al.*, 1991), and what characteristics actually affects consumers during the decision – making process. This standard procedure occurs unconsciously, as individuals in their effort to minimize the potential choice risk are based on what they already know and on anything they are familiar with.

Based on this argumentation, the following hypothesis is developed:

**H<sub>6</sub>:** Preferences positively affect consumer behaviour.

### 3.3. Monetary Factors and Consumer Choice

The traditional theory of choice is based on the fundamental assumption that the average consumer is rational. Rationality suggests that individuals hierarch their needs in order of preference for those bundles of goods that provide the maximum utility level, subject to the limited available resources (Varian, 2014; Rabin, 2013; Jacoby, 2000; Ackerman, 1997; Thaler, 1980; Becker, 1962). The utility is always extracted from the combination of the three following elements; quantity, price and available resources.

Quantity is an easily and objectively measured element, which is highly connected to satisfaction in a linear relationship; more quantity is always expected to provide greater satisfaction at a given price (Friedman, 1966). This approach is fully justified by the concept of the insatiability assumption, which always holds in the economic models and suggests that human needs are infinite, and as such, more satisfaction should be derived by additional consumption. However, the notion that more is always more preferable

cannot be applicable, even if consumers always try reaching higher standards of living as part of their human nature.

Price is the second key element used in the economic models of behaviour. The rationality assumption suggests a negative relationship between price level and purchasing intention due to the fact that consumers are characterised as price sensitive (Völckner, 2008; Lichtenstein *et al.*, 1993). However, the current study examines the role of price mainly for its psychological impact on consumers and is seen as a complex and subjective stimulus (Tellis and Gaeth, 1990; Lattin and Bucklin, 1989). Different price levels result in different perceptions affecting the purchasing probability.

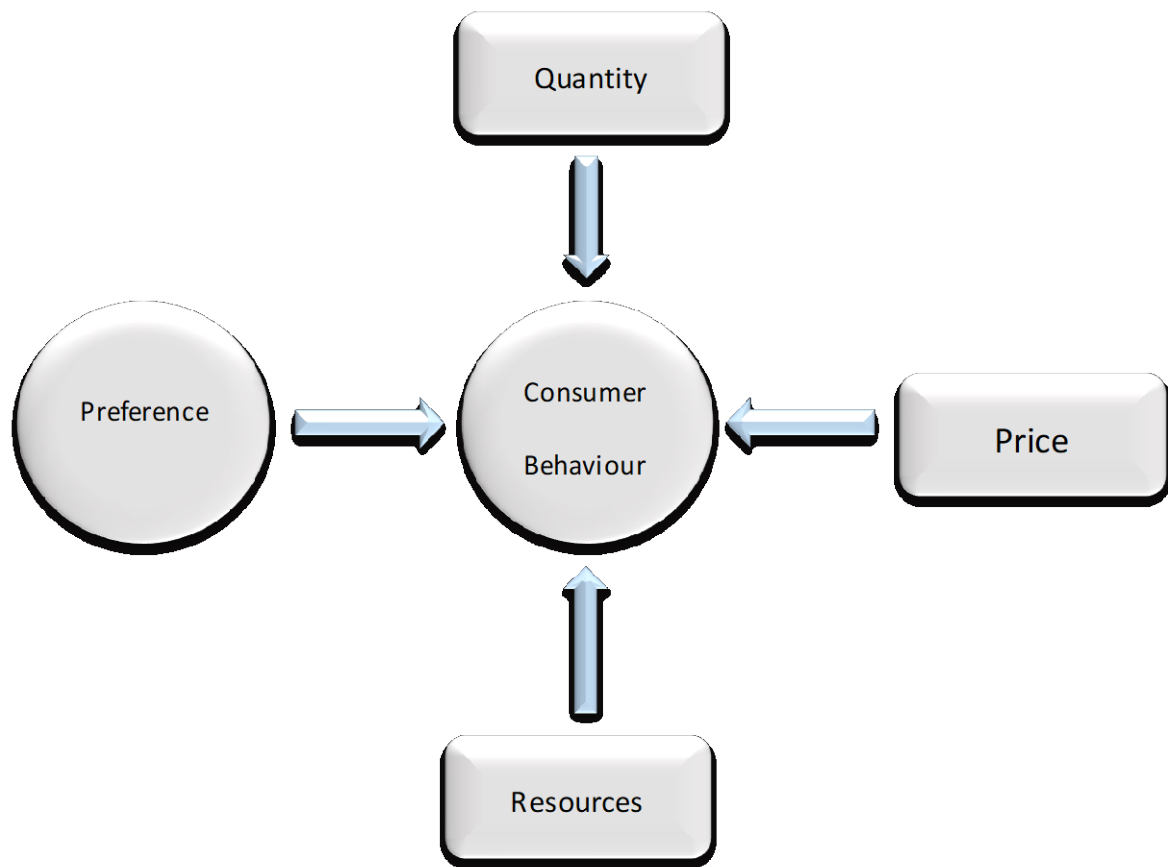
Income, as the third important determinant, represents all the available resources for spending on the potential bundles. These resources can either be fully exhausted or they can be transformed into savings for future consumption. The volume of the current consumption is based, to a great extent, on the current intentions and future predictions (Carroll, 1994; Campbell and Mankiw, 1989) incorporating the element of the uncertainty. The current study examines the impact of income over and beyond its practical use, focusing more on the way it is linked to the individuals' happiness (Easterlin, 2001) and to social acceptance, or social status (Frey and Stutzer, 2003).

On these grounds, the following hypotheses are developed:

**H<sub>7</sub>:** Quantity (purchasing behaviour towards a product target) positively affects consumer behaviour.

**H<sub>8</sub>:** Price perceptions (willingness to pay a fixed price) positively affects consumer behaviour.

**H<sub>9</sub>:** The available resources (income) positively affect consumer behaviour.



Graph 7: Factors Affecting Consumer Behaviour.

## CHAPTER 4. RESEARCH METHODOLOGY.

### 4.1. General Research Strategy

The current study adopts the positivism research philosophy. Positivism is a research philosophy based on knowledge derived through observation including measurement. In positivism studies the researcher is responsible for the data collection and is expected to interpret this data in an objective way. In these types of studies, the research findings can always be observed and quantified.

More specifically, positivism depends on quantifiable observations leading to statistical analysis. It has been noted that 'as a philosophy, positivism is in accordance with the empiricist view that knowledge stems from human experience. It has an atomistic, ontological view of the world as comprising discrete, observable elements and events that interact in an observable, determined and regular manner. Moreover, in positivism studies the researcher should have no direct connection with the study and there are no provisions for human interests within the study. As a general rule, positivist studies usually adopt deductive approach, whereas inductive approach is usually associated with a phenomenology philosophy (Crowther and Lancaster, 2008). The researcher is expected to focus on facts only whereas phenomenology concentrates on the meaning and has provision for human interest. Based on that, researchers often warn that when a positivist approach is applied in order to be purely objective, a minimal interaction should be maintained between the research participants and the researcher throughout the study (Wilson, 2010).

The five main principles of positivism research strategy can be described as follows:

- There are no differences in the logic of inquiry across sciences.
- The research focuses on explaining and predicting only.
- Research should be observable through human senses. Inductive reasoning should be used to develop hypotheses to be tested during the research process.

- Science is not the same as the common sense. The common sense should not be allowed to bias the research findings.
- Science must be value-free and it should be judged only by logic.

The following table describes other research methods (ontology, epistemology, axiology and typical research methods) related to the positivism philosophy:

ONTOLOGY	EPISTEMOLOGY	AXIOLOGY	TYPICAL METHODS
<b>REAL, EXTERNAL, INDEPENDENT</b>	Scientific Approach Facts can be observed and measured		
<b>ONE TRUE REALITY (UNIVERSALISM)</b>	Law-like generalizations Numbers	Value-free research Independence of the Researcher	
<b>GRANULAR (THINGS)</b>		Objectiveness of the Researcher	Deductive, highly structured, large samples, measurement, typically quantitative analysis, but a range of data can be analyzed
<b>ORDERED</b>	Causal explanation and prediction as contribution		

Table 1: Research Methods Related to Positivism Philosophy (Ramanathan, 2009).

Positivism also relies on the following aspects:

- *Science is deterministic.* Scientific approach is based on assumption that A Causes B under certain circumstances.
- *Science is mechanistic.* The mechanical nature of this viewpoint can be explained in a way that researchers develop hypotheses to be proved or disproved via application of specific research methods.

- *Science uses method.* Chosen methods are applied mechanically in order to operationalize theory or hypothesis. Application of methodology involves selection of sample, measurements, analysis and reaching conclusions about hypotheses.
- *Science deals with empiricism.* It means that science deals with what is observable and measurable only. From this perspective, science is considered as objective.

The following table presents the differences between the Positivism and Interpretivism philosophy:

	POSITIVISM	INTERPRETIVISM
<b>OBSERVER</b>	Must be Independent	Part of what is observed
<b>HUMAN INTERESTS</b>	Must be not relevant	Main drivers
<b>EXPLANATIONS</b>	Must indicate causal relationships	Aim to increase understanding
<b>RESEARCH PROGRESSES' THROUGH</b>	Hypotheses and deductions	Gather rich data from which ideas are induced
<b>CONCEPTS</b>	Should be operationalized	Should incorporate stakeholder perspectives
<b>UNITS OF ANALYSIS</b>	Should be reduce to simpler terms	Might include the complexity of situations
<b>GENERALIZATION THROUGH</b>	Statistical Probability	Theoretical abstraction
<b>SAMPLING REQUIRES</b>	Large samples randomly selected	Small numbers of cases chosen for particular reasons

Table 2: Differences between Positivism and Interpretivism (Ramanathan, 2009).

In next, the table below presents the differences between positivism and phenomenology:

	POSITIVISM	PHENOMENOLOGY
<b>BASIC NOTIONS</b>	The world is perceived as external and objective Researcher is independent Should be judged only by logic	The world is perceived as socially constructed and subjective Observer is a part of the object of observation Human interests drive science
<b>RESPONSIBILITIES OF RESEARCHER</b>	Focusing on facts Causal relationships and important laws are searched Phenomenon reduced to the simplest elements Hypotheses development and testing	Focusing on meanings Understand the meaning of events Exploring the totality of each individual case Ideas formulated by induction from data
<b>MOST SUITABLE RESEARCH METHODS</b>	Concepts have to be operationalized	Use of various methods for different phenomena
<b>SAMPLING</b>	Large samples	Deeper analysis for small samples or for a longer time horizon

Table 3: Differences between Positivism and Phenomenology (Easterby-Smith *et al.*, 2012).

Despite the advantages of this approach, Positivism is not suitable for every different situation due to the following limitations; (1) it is based on experience as a reliable source of knowledge, but a wide range of basic and fundamental concepts such as time and space cannot be based on experience, (2) it is assumed that all kinds of procedures can be considered as a specific variation of actions of individuals or relationships between individuals, and (3) the adoption of positivism in the business field can be criticized for reliance on status quo, which means that research findings seem to be mainly descriptive and they lack insight into in-depth issues.

#### 4.2. Research Method

The current research problem calls for a quantitative approach only. Quantitative research is described by the terms of positivism and is defined as 'a research method that



emphasizes quantification in the collection and analysis of data' (Bryman, 2012). Using numerical data only enables researchers to quantify and measure various phenomena, to reach valid conclusions and test any causal relationships. This approach is widely used mainly for its objectiveness and its reliability (Duffy, 1985) because when conducting a study, the researcher should not have any direct contact with the subject at all, but they remain neutral in order to understand the facts from an objective point of view. The ability of controlling and eliminating the extreme or abnormal variables within the internal structure of a study enhances even more the reliability of this approach. Moreover, the fact that the findings of the analysis can be generalized to the whole population because it includes the larger sample which is always randomly selected (Carr, 1994), is an additional advantage of this method.

Although the quantitative approach is considered as a reliable method of analysing data for multiple purposes, it is not applicable to every different situation due to some limitations. The most obvious challenge is that by definition is a very structured method, which usually overlooks the participants' experiences and perspectives in highly controlled settings (Ary, Jacobs, Sorensen and Walker, 2013). This way, it is much more difficult to confirm that the research situation is like a real-life situation as it doesn't always shed light on the full complexity of human perceptions.

In general, five different quantitative methods have been developed and are widely used by researchers; the survey, the field experiment, the simulation, the multivariate analysis and the correlational study.

### Survey

The survey is a research technique that enables the collection of data directly from a person participating in the study through a structured set of questions. It is one of the most

popular quantitative methods because it allows extracting information about a given phenomenon, through the formulation of questions that reflect the attitudes, perceptions and behaviours of a group of individuals. The survey method offers several benefits. The most important ones include the high representativeness of the whole population and the low cost, compared to the other alternatives. However, the reliability of the survey data highly depends on the survey structure and the accuracy of answers provided by the participants.

### Field experiment

Field experiments take place in real life settings involving the isolation and manipulation of one or more variables in order to assess the level of influence. It enables the researcher to observe the natural behaviour, however there are always a lot more variables to take into account. The field experiment approach offers significant strengths compared to lab experiments, as it is conducted in a natural setting rather than an artificial lab setting. It is designed for observing large groups of people, which generally allows more in-depth analysis, however, controlling the variables is much more difficult, and therefore, replicating the same conditions appears to be challenging. Furthermore, due to the fact that the study takes place in natural settings, unanticipated actions are likely to appear, which might adversely affect subjects and participants.

### Simulation

This method is based on specific mathematical techniques allowing imitating the operation of almost any type of process of the real world. It is based on constructing theories and hypotheses about the observations made, or using models to predict future behaviour. It is suitable for analysing complicated practical problems and it can be used to plan a time frame, which is able to investigate quickly the change effects of a real-life situation. However, the numerical model building requires deep knowledge of the subject and it can

also be proved time consuming and quite expensive.

#### Correlational study

Correlational study is essentially an exploratory technique used for assessing whether a relationship between two or more variables does exist. There is no manipulation of variables, but only an investigation of the extent to which the variables are associated. The strength and direction of the relationship are two characteristics highlighted by a correlational study. At the same, a wide range of information can be collected from many domains at one time and it is possible to study the interrelations among those variables. However, correlation doesn't indicate causality, because the association between two variables could potentially be explained by a third one.

#### Multivariate analysis

Multivariate analysis is defined as a set of methods used for multiple measurements for each individual or object of one or more samples. This method is based on descriptive and inferential statistics techniques, which can be applied in a wide range of situations, such as market research, process optimization and quality control. Multivariate techniques enable researchers to explore relationships between variables using the most suitable methods for each situation because the statistical process can be adjusted to suit the characteristics of the environment under analysis. However, these techniques are usually complicated enough and require the use of specialized statistical software, which is generally expensive.

<b>METHOD</b>	<b>ADVANTAGES</b>	<b>DISADVANTAGES</b>
Surveys	<ul style="list-style-type: none"> <li>- Low development time</li> <li>- Cost-effective</li> <li>- Easy data collection and analysis using statistical methods</li> <li>- Can reach high audiences</li> <li>- High representativeness</li> <li>- Not affected by the subjectivity of the researcher</li> </ul>	<ul style="list-style-type: none"> <li>- Reliability of data is very dependent on the quality of answers and on the survey' structure</li> <li>- Rigidity of the structure</li> <li>- Don't capture emotions, behaviour and changes of emotions of respondents</li> </ul>
Simulation	<ul style="list-style-type: none"> <li>- Used to study complex systems</li> <li>- Compress a time frame, which allows to study the behaviour of the system more quickly</li> <li>- 'What-if' questions can be tested and answered</li> </ul>	<ul style="list-style-type: none"> <li>- Model building requires deep knowledge of the field</li> <li>- Time consuming and expensive</li> <li>- May require specialized hardware and software tools</li> </ul>
Field Experiment	<ul style="list-style-type: none"> <li>- Works in natural setting</li> <li>- Larger scale research</li> <li>- Subjects are not influenced by the observations of the experiments</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to control variables</li> <li>- Difficult to replicate the same conditions of the study</li> <li>- Ethical problems can arise</li> </ul>
Multivariate Analysis	<ul style="list-style-type: none"> <li>- Several statistical tests and techniques can be used</li> <li>- A lot of information and different domains can be explored</li> <li>- Technical rigor of the</li> </ul>	<ul style="list-style-type: none"> <li>- Complex of the employed techniques</li> <li>- Requires the use of specialized statistical software</li> </ul>

Correlational Study	process	
	<ul style="list-style-type: none"> <li>- A lot of information and different domains can be explored</li> <li>- Degree of association between two variables can be easily calculated</li> <li>- No manipulation of behaviour is required</li> </ul>	<ul style="list-style-type: none"> <li>- No direct cause and effect can be inferred</li> <li>- May lacks internal/external validity</li> <li>- Doesn't provide a conclusive reason for the existence of a correlation between two variables</li> </ul>

Table 4: Advantages and Disadvantages of each Research Method (Easterby-Smith *et al.*, 2012).

#### 4.3. Research Design

The current study attempts to examine the consumer behaviour in the electronics sector in the United Kingdom, which is assessed by a combination of monetary and non-monetary factors. The participants were asked to choose an electronic option of personal use. The set of the alternative options was finite and it included cell phones (or smartphones), digital cameras, laptops/PCs, tablets, DVD/Blue-Ray players, electronic toys/games, e-book devices, audio players, GPS navigation devices, calculators and TV sets (11 alternatives in total). It was ensured that all the potential bundles were realistic and at the same time it was noted that some combinations might be outside of the consumer's existing experience.

The decision to focus on the electronics sector was taken because of the remarkable variety of alternative producers and products, as well as, the considerable width and depth of each product-line. Therefore, customers had many options, a fact that eliminates the probability that the lack of an attractive offering guides the final choice. Moreover, electronic products are bought quite often by the majority of the population. Even though, mainly due to cost consideration, not many electronic devices (e.g. mobile phones) can

be easily bought per year, a consumer is very likely to demonstrate purchasing behaviour for a few or even one electronic item per year. Hence, the participants are able to comment on this behaviour. Finally, the large variety of electronic products that can be found in the UK market differ significantly in terms of the positioning (price, product quality, unique selling proposition) and the same is also true for the purchasing occasion. Electronic products are bought either for public (e.g. mobile phone) and/or private (e.g. DVD player) use. Therefore, it is expected that there is enough scope for different facets of purchasing behaviour to develop, which corresponds to the depth of analysis our research hypotheses aim to capture. It could therefore be expected that signals of purchasing behaviour, where identified in terms of customer preferences, price, quantity and resources (income), would be genuine and not the result of a lack of alternative or other kind of constraint choice. Therefore, the sector is considered suitable for the testing of our research hypotheses. This is also evidenced in the literature, as many studies have focused on the electronics sector to examine the consumer behaviour by testing a large number of drivers by means of a quantitative research (Kim and Forsythe, 2010; Zarantonello and Schmitt, 2010; Birke, 2009; Im, Pesaran and Shin, 2003; Dawar and Parker, 1994).

For the purposes of the current study, the ordinal measurement was used and a numerical dimension was given to consumer's satisfaction. A scale over the range of 0 - 7 was given, with 7 the highest level of satisfaction. It was also assumed that the scale had a meaningful zero. The consumer was considered as a price taker, they had no influence at all on the price level and they were not able to improve the level of satisfaction without varying the total amount of their available resources or the units' prices. More focus was given on what was chosen, on how it was chosen rather than on how much quantity was chosen.

#### 4.4. Sampling

Sampling theory is an essential part of research, it examines the relationship between a certain population and the sample extracted from it. By using the probability theory from mathematics, certain outcomes can be reached and generalized to the population. More specifically, sampling theory is based on the concept that a number of units randomly selected from a finite population can provide a miniature representation of that population (Ferber, 1949). In this respect, the statistical probability theory is very useful due to the following reasons:

- It allows estimates of population parameters, such as the population mean and variance to be made from sample statistics, like sample mean and sample variance.
- The use of test of significance through the hypothesis testing, can reach important statements about the characteristics of the population tested.

The samples selected should be representative of the population in order to reach valid and generalizable outcomes. Inevitably, some degree of distortion is likely to occur, however it can be controlled to some extent, when the principles of sampling are properly applied. These principles refer to the lack of bias, to consistency and to efficiency. The lack of bias occurs when there is not any difference between the expected value and the population value, otherwise there is a systematic error. Bias can also arise at any stage due to various reasons; when the units are selected from an incomplete or inaccurate list, when the method applied is not appropriate, or when the non-responsiveness rate is quite high, etc. Consistency occurs when the mean of the sample (expected value) approaches the mean of the population as the sample size approaches infinity. The efficiency of the parameters lies on the estimation of the variance, so the efficient estimators should have as small variance as possible.

Even though this method sounds efficient, there are still some limitations to tackle with. In practice, there are not many lists of populations available and those existing are not always satisfactory and suitable for every different purpose (e.g. they might be outdated, etc.). Even in the ideal situation that there is available a suitable population for conducting a particular study, calls to obtain randomly selected informants might be scattered, causing significant waste of time and money. The whole sample might suffer severe delay which can affect the validity of the final conclusions. Moreover, all the randomly selected informants should ideally be interviewed in order to maintain the statistical validity of the sample. However, if the initial call is unsuccessful, the 'call-back' is a necessity and the researcher should secure as many successful calls as possible, as some bias will arise from the non-response calls. Although it costs in time and money, the value of this method cannot be matched by any other existing one so far.

In the current research study, the random sampling (or probability sampling) was adopted. This method results in every sampling unit of a finite number of observations, having a non-zero probability to be selected. According to the pertinent literature, this is the only completely objective method of sampling populations, as due to the mechanical selection of those to be interviewed, the bias arising from candidates interviewing only the most easily available informants is avoided. In other words, every unit of a finite population has exactly the same probability of being selected for the sample. A table of random numbers was used, which means that every unit selected was numbered. The digits were selected from the random numbers table in any systematic way (vertical, horizontal, etc.) and those units whose numbers coincide with the random digits were included in the sample. Regarding the sample size, a larger one was needed as the population displays considerable heterogeneity when it comes to preferences. Informants differ in the educational level and background, social class, income, lifestyle, location, age, gender



and personal characteristics. It is widely accepted that the larger the size of the sample, the greater its reliability, however this doesn't always mean accuracy. The non-response factor was also considered, as it was inevitable. The population selected for this research study is men and women in the age group of 18 to 65, over the country of the United Kingdom. A total of 700 participants were identified as the sample of the work. As prior literature suggests (Hair, Celsi, Ortinau and Bush, 2018; Iacobucci, 2010; Bearden, Sharma and Teel, 1982), this is considered a sufficient sample size that enables the analysis of meaningful and valid results. Therefore, they were contacted by email and personal contact (face-to-face) 700 randomly selected consumers explaining the objectives of the study and asking for their participation. For those agreed to participate in the study, the questionnaire and the ethics consent forms were sent. **Overall, 274 consumers participated, providing an effective response rate of 34.14%.** The response rate is consistent to similar studies that examine consumer behaviour using quantitative research (Previte, Russell-Bennett and Parkinson, 2015; Fraj and Martinez, 2006; Follows and Jobber, 2000).

The description of the sample is presented in the following tables. Specifically, Table 5 presents the gender of the sample. The table reports balanced results, as 133 males (48.7%) and 140 (51.3%) participated in the study. This finding indicates that there is no bias of the results towards men or women.

Table 5: Gender		
	Frequencies	Percentage
Male	133	48.7
Female	140	51.3
Total	273	100,0

Table 6 reports the results about the age of the participants. The results are balanced and spread over the full range of ages. The study focuses on adults (over 18) to ensure that the participants, due to maturity and personal income, can make purchase decisions. The dominant age category is 25-34 (35.4), followed by 35-44 (25.5%) and 19-24 (19.0%), which is reasonable as the young ages tend to be more familiar and keen in the use of electronic products which is the focus of the study.

Table 6: Age		
	Frequencies	Percentage
Under 18	0	0.0
19-24	52	19.0
25-34	97	35.4
35-44	70	25.5
45-54	40	14.6
55-64	11	4.0
Over 65	4	1.5
Total	274	100,0

The results about the nationality of the sample, as presented in Table 7, show that 149 participants (54.4%) are UK customers while 61 (22.3%) and 64 (23.4%) participants are from EU and international accordingly. The dominant position of UK participants in the sample is reasonable as the study was carried out in the UK. However, the sample appears to be acceptable as different cultural contexts (UK, EU, and international) are sufficiently presented. This adds to the representative of the sample and the generalisability of the findings.

Table 7: Nationality		
	Frequencies	Percentage
British	149	54.4
EU	61	22.3
International	64	23.4
Total	274	100,0

Coming to the employment status of the sample, the results show that 155 of the participants (55.6%) are employed, while 46 (16.8%) participants are students and 42 (15.3%) are self-employed. As expected, the vast majority has personal income, a key condition for demonstrating consumer behaviour. Important to note that students, a key market for electronic products, which count for 16.8% of the sample, are also expected to have some – if not full – financial dependence, as also shown in the Table 8.

Table 8: Employment status		
	Frequencies	Percentage
Employed	155	56.6
Student	46	16.8
Self-employed	42	15.3
Retired	6	2.2
Out of work and looking for work	16	5.8
Out of work but not currently looking for work	8	2.9
Unable to work	1	.4
Total	274	100,0

The Table 9 that follows reports that most of the participants who are currently working (61.2% of the total) are working in the services sector. This is an expected finding considering the broad range of sectors classified as service providers (professional services, financial/ banking organisations, consulting, other types of services, etc.). In addition, both manufacturing (6.2%) and retail (15.3%) as well as other/not explicitly classified sectors (17.2%) are sufficiently represented, thus indicating that a balanced and representative sample with respect to the range of sectors the participants work in.

Table 9: If you are currently working, in which sector you are working?		
	Frequencies	Percentage
Manufacturing	13	6.2
Retail	32	15.3
Service provider	128	61.2
Other	36	17.2
Total	274	100,0

Coming to the marital status, the results, as shown in Table 10, indicate that most of the participants are 'single, never married' (54.6%), followed by significant number of 'married or civil partnership' participants (28.0%). This is a reasonable finding that mirrors the population of the study, considering also the fact that most buyers of electronic products, the main focus of the study, are relatively young and therefore likely not having been married yet.

Table 10: Marital status		
	Frequencies	Percentage
Single, never married	148	54.6
Married or civil partnership	76	28.0
Widowed	4	1.5
Divorced	30	11.1
Separated	13	4.7
Total	271	100,0

Similarly, the results about the education, shown in Table 11, show that, on the whole, the participants of the study are highly educated (higher education). In particular, 42.9% of the participants are bachelor graduates, while 24.9% possess a master degree and 6.2% are Ph.D. qualified. There is also a 10.3% who have a High school graduate, diploma or equivalent. Considering that generally moderate/high educated consumers are keener on electronic products, having a better understanding of their attributes, it is concluded that the educational level of the sample mirrors the population of the study, and the sample is therefore representative.

Table 11: Education		
	Frequencies	Percentage
No schooling completed	0	0.0
Some high school, no diploma	2	.7
High school graduate, diploma or the equivalent	28	10.3
Some college credit, no degree	15	5.5
Trade/technical/vocational training	26	9.5
Bachelor's degree (University/College)	117	42.9
Master's degree	68	24.9
Doctorate degree	17	6.2
Total	273	100,0

Finally, with regards to the (personal) monthly income, the results shown in Table 12 are well balanced. No income category appears to be clearly dominant which enables us to generalise the findings to a broad range of consumers, from low to moderate and to high incomes. Most of the participants (41.6%) appear to have personal income from £1,501 - £3,000 (20.8% have £1,501-£2,000, and 20.8% have £2,001-£3,000), but, as said, all other income categories are sufficiently represented as well. The findings are in line with the country (UK) average monthly income and, thus, indicate that the sample of the study is representative of the population.

Table 12: (Personal) monthly income		
	Frequencies	Percentage
Under £500	32	12.4
£501 - £1,000	47	18.1
£1,001- £1,500	45	17.4
£1,501- £2,000	54	20.8
£2,001- £3,000	54	20.8
£3,001 - £4,000	20	7.7
Over £4,000	7	2.7
Total	259	100,0

Three weeks after the initial contact, a follow up email was run to non-respondents. Early and late respondents were compared to assess non-response bias (Armstrong & Overton,

1977). A t-test of difference in means on all the constructs of the study showed no significant difference between early and late respondents, suggesting that non-response bias was not a problem in the present study.

#### 4.5. Research Instrument

The basic technique adopted for the aim of the current research is the questionnaire. This method allows to obtain specific information related to the research problem and the data analysis results in a more precise interpretation. The questionnaires were administered in personal interviews, via email or Internet. In order to ensure that the responses were as closer to reality as possible, the research problem was clearly and well defined, so as respondents were able to fully understand the question. Moreover, all the requested information was provided in high detail and it was ensured that all respondents were willing to participate in the survey. There was use of simple language which could be easily understood and helped to avoid any ambiguous meanings, as there is research evidence that many words of even common use are often not understandable by all who use them. Only closed questions were included in the survey questionnaire and the participants were offered a choice of a finite number of alternative responses and were expected to choose the answer that responded best to their personal views on this topic. Some of the questions were dichotomous, such as YES/NO and others multi-choice for reflecting different shades of opinions and perspectives. For the most part, the measures were conducted with a seven-point rating scale ('1 = totally disagree', '7 = totally agree'), to capture the range of intensity of the participant's attitude and behaviour. There was an adequate number of alternative options available, so as to provide sufficient scope for participants to choose a suitable answer.

Since the current research problem focuses on the consumer's behaviour, the questionnaire included the following five classes of information:

1. Facts and Knowledge
2. Opinion
3. Motives
4. Past Behaviour
5. Future Behaviour

The first class called 'Facts and Knowledge' refers to the informant's current perceptions and knowledge regarding the defined problem of the survey. The second class focuses on the consumer's existing attitude and assessment towards the products targets examined, while the third one refers to the underlying objective which drives to an extent, the need creation and the purchasing behaviour. The fourth class is exactly the meaning itself, it refers to the patterns of consumption of this product category in past period of time. Last but not least, the 'Future Behaviour' class reveals any future behavioural patterns (Barker and Blankenship, 1975).

#### 4.6. Measures

The measures used in the study were adopted or adapted where appropriate from existing literature. The measures were selected from extant literature that has been undergone prior psychometric scrutiny. In cases where no suitable measures were found in the literature, new measures were created following standard procedures for developing measures with sound psychometric qualities (Gerbing and Anderson, 1988; Churchill, 1979; Nunnally, 1978). Concerning the drivers of Preferences, Prior Knowledge was measured based on the scales of Awasthy, Banerjee and Banerjee, (2012); Flynn and Goldsmith (1996); Mitchell and Dacin (1996); Park and Mothersbaugh (1994). For the measurement of Emotions, the items were extracted from Sweeney and Soutar (2001). The Word-of-Mouth scale was adopted from Zeithaml, Berry and Parasuraman, (1996). The Personal Factors measure was newly developed on the basis of recommendations

from Gerbing and Anderson (1988); Churchill (1979); Nunnally (1978) for scale development. Social Environment was measured using the scales adopted by Sweeney and Soutar (2001). Finally, for the measurement of Preferences, Utility, Price, Resources (income), Quantity and Consumer Behaviour, newly developed measurement scales were used on the basis of recommendations from the literature (Gerbing and Anderson, 1988; Churchill, 1979; Nunnally, 1978). Important to note that the construct of Utility, for a more comprehensive and precise measurement and due to the central role of the construct in the study, was measured both, directly via newly developed scale and indirectly via the assessment of Consumer Behaviour with the Preferences scale.

A pre-testing of the questionnaire was then conducted. Specifically, the questionnaire was pre-tested with ten Economics and Marketing academics and ten consumers from the population under investigation to increase content validity and clarity of the measures. Based on the feedback provided, some items were revised in order to improve their precision and clarity. All the items were measured using a seven-point scale anchored by 'strongly disagree' and 'strongly agree', unless otherwise noted. The constructs and specific items are shown in the Appendix.

#### 4.7. Techniques

For the purpose of the current research study, various statistical techniques, as well as, econometric techniques were adopted. The significant relationship between the consumer's preferences and the several factors were discussed objectively in connection to the research problem. Data are the raw materials of research findings, they need to be processed into a usable frame for the purposes of analysis and interpretation.

For getting a general picture of the topic, a descriptive statistical analysis was conducted first, in order to summarize and describe the data collected. For this case, univariate data



was used which refer to a single variable analysed along. More specifically, in the first general phase of the analysis, the following tools were used:

- Sample Mean (Expected Value): gives the central tendency of the sample. It provides useful information regarding the average consumer, which it might refer to the age, to consumption of a specific product, etc.
- Sample Median: the basic advantage is that gives a better idea of the average value as it is not skewed so much by extremely large or small values.
- Sample Standard Deviation: measures how far the units are spread out of the mean. It is important to have this value, as it shows the sample validity. In general, the smaller the variance, the more trustworthy the sample. Moreover, any extreme units –called outliers- can be indicated and excluded for avoiding bias.
- Sample Variation: provides the same insights with the standard deviation. The only difference is that is measured in a different way for more valid results.
- Sample Mode: Indicates the value that occurs most in the sample. In this case, it is interesting to see which electronic product is the most preferred. In a later and more complex analysis, it is found why.
- Sample Range: provides the minimum and the maximum values of the sample.
- Frequencies: shows how many times each variable occurs in the sample. For instance, how many people participated in the survey were women, etc.

The next step is the use of the multivariate analysis, in which the simultaneous relationship among two or more variables was assessed (Hair *et al.*, 2008). For the current research problem, the following relationships were examined:

- Identifying if/how prior knowledge affects consumer preferences.
- Identifying if/how emotions affect consumer preferences.
- Identifying if/how the Word of Mouth affects consumer preferences.

- Identifying if/how the social/cultural environment affects consumer preferences.
- Identifying if/how personal factors affect consumer preferences.
- Identifying if/how preferences affect consumer behaviour.
- Identifying if/how available resources affect consumer behaviour.
- Identifying if/how product quantity affects consumer behaviour.
- Identifying if/how price affects consumer behaviour, assuming that the consumer is price taker only.

For further examination of the relationship between two variables, the concept of correlation was used, which indicates if there is any kind of positive or negative relationship between two continuous variables. At this stage, the statistical test of significance was applied to the data, which enables statistical hypotheses to be accepted or rejected. In particular, the statistical hypothesis is formed for the sole purpose of rejecting and it is called a Null Hypothesis (NH). When the NH is rejected, the opposite hypothesis (H1) is accepted and it is usually what the researcher tries to prove. As such, in the current analysis the correlation index ( $r$ ) between the dependent and the independent variables was computed by the SPSS and then, it was tested at the level of significance 5% based on the following hypotheses:

$$\text{NH: } r = 0$$

$$\text{H}_1: r \neq 0, \quad -1.96 < r < +1.96$$

However, correlation does not reveal the one thing that matters most – causality. The reason why an individual might purchase a particular bundle of goods instead of another cannot be captured by the correlation concept. For this purpose, the last step of the second phase of the analysis is Regression. The regression reveals how the value of the dependent variable shifts when one of the independent variables shifts as well, all other

things equal (*ceteris paribus*). It is used to understand which among the independent variables are related to the dependent, and to explore the forms of these relationships. For the purpose of the current study, the following multiple regressions general models were used for revealing the relationship between several independent variables and one dependent.

In the first regression model, the preference variable was as the independent variable. The level of dependence of the consumer preferences on the social/cultural environment, emotions, personal factors, Word of Mouth and prior knowledge was tested. The testing of the hypotheses H1 – H5 corresponds to regression model 1.

Regression Model 1:

$$\text{Preference} = B_0 + B_1 * \text{Knowledge} + B_2 * \text{Emotions} + B_3 * \text{WoM} + B_4 * \text{Personal Factors} + B_5 * \text{Environment} + u$$

In the second regression model, the variable that represents consumer behaviour was indicated as the independent variable in order to assess if the consumer's choice depends on price, resources, quantity and preference.

Regression Model 2:

$$\text{Consumer Behaviour} = B_0 + B_1 * \text{Preference} + B_2 * \text{Resources} + B_3 * \text{Quantity} + B_4 * \text{Price} + u$$

The regression provides useful insights regarding different purchasing behaviour dimensions, as not only shows how much consumers are affected by these variables, but also how behaviour shifts when each independent variable shifts as well. Answers can be given to questions such as (1) Does a change in price influence more than a shift in preference? or (2) Do preferences vary a lot due to different prior knowledge or emotions? The multiple regression analysis will help in this respect as well. Further to the previously

discussed regression model 1, the regression model 2 enables the testing of the whole set of hypotheses, namely H1 – H9.

The regression model 2 corresponds to the utility theory detailed in the literature review. The utility theory is sufficiently operationalized in the current study via the regression model 2 as all critical variables that relate to happiness and/or satisfaction, which suggest the core of the utility theory, are included in the equation model. The concept of utility was used by developing two different models, which was compared in order to find out which one works better and provides more accurate conclusions. The first utility model included three different variables, only those that economists use so far when it comes to explaining consumer behaviour; price, quantity and income. The second utility function included a fourth one, the variable of preference, which was equally treated and examined as the other three. The model providing the higher amount of satisfaction, is considered as more suitable for explaining and predicting the consumer behaviour because these variables contribute all together to the final choice. Important to note that each variable was expected to contribute at a different level for different consumers, as individuals perceive these motives in a totally subjective way.

The post analysis part is reporting and summarizing all the information revealed by the data analysis. The findings are presented within a logical framework, as follows:

- Introduction: The purpose of the research study is presented, as well as, the objectives, the methodology and the constraints experienced during the survey.
- Main Body: The next step is to present the findings of the analysis in high detail. Since quantitative tools are involved, the statistical extracts are completely textual. The major relationships between the variables are adequately discussed and compared.

- Conclusions: The main findings of the analysis are discussed in detail supported by references. Justification about the suitability and the appropriateness of the suggested model are presented.
- Appendices: This is the last section of the study giving additional information regarding the sample, the questionnaire and the full statistical tables and graphs.

#### 4.8. Ethical Considerations

The current research study is subject to certain ethical issues. All participants were treated with respect and their full consent was obtained prior to the study. A written letter of acceptance was reported in order to ensure the protection of the participants' privacy, their anonymity, and the adequate level of the data confidentiality used for academic purposes only. Moreover, the aim of the letter was to reassure that the participation in the research is voluntary and that participants could withdraw at any point and for any reason. The full details regarding the research problem were explained in high detail from the researcher in order to avoid any kind of misleading information.

#### 4.9. Research Limitations

This research approach it has to be tested and refined, and also the context in which it does and does not apply should be understood. In case that this approach does not work as well as expected to some particular application, it should be treated as a valuable finding because knowing when a theory doesn't help, provides scope for looking for better answers to this gap in the literature. Some of the specific limitations that this research study tackles are the following:

- Heterogeneity. There is a huge amount of heterogeneity in the reasoning underlying decisions made by a population of individuals. Even though an attempt was made to maximize the observed heterogeneity and to minimize the

unobserved elements, capturing all the information through data collection may not be possible.

- Sample Size. A larger sample size may enhance the validity of the results for the generalization to a wider population.
- Quantitative experiments didn't take place in natural settings. As a result, they may not allow participants to sufficiently explain their actual choices or the meaning of the questions may have for those participants.
- The current study has identified ways/variables which affect consumers' preferences, however the current list is not exhaustive. There may be additional variables that consumers use for evaluating a target, that the present study fails to identify. Future research should continue to seek for more variables/factors that preferences may respond to them.

## CHAPTER 5. DATA ANALYSIS.

The data analysis involves two phases: the evaluation of the measures and the investigation of the conceptual framework of the study. In doing so, SPSS statistical program is used for the data analysis.

### 5.1. Measures Evaluation

Following standard procedures (Gerbing & Anderson, 1988; Nunnally, 1978), the reliability and validity of the measurement multi-item scales, namely Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors, Social Environment, Price, Resources (income), Utility, Preferences and Consumer Behaviour, were assessed. The scale properties are provided in Table 13. The items were first examined by item-total correlations and exploratory factor analysis. Items that exhibited low item-total correlation ( $<.30$ ) and low loadings on intended factors ( $<.50$ ) were removed.

This process led to the deletion of three items of the Utility scale and one item of the Consumer Behaviour scale. Specifically, the last three items indented to measure the level of utility from the use of the chosen product target, namely 'My income would allow me to buy a new version of XYZ', 'Based on my income, I would be happy to buy a new version of XYZ', and 'Based on its price, I would be happy to buy a new version of XYZ' exhibited low correlations and factor loadings, and were removed, resulting in a 5-item scale to measure Utility. Similarly, the item 'When/if a need of a product of this kind comes, XYZ will be my first choice' of the Consumer Behaviour scale also exhibited low correlations and factor loadings, and was removed, resulting in 3-item scale to measure Consumer Behaviour. A detailed presentation of the scale items used can be found in the Appendix.

Table 13: Measures Properties

	Construct	Number of items <sup>a</sup>	Cronbach Alpha <sup>b</sup>	Item-total correlation	Standardized factor loading	Explained variance <sup>c</sup>
Antecedents of Preferences	Prior Knowledge	5	.96	.86 - .91	.91 - .94	85.97
	Emotions	4	.91	.77 - .85	.87 - .92	80.42
	Word-Of-Mouth	3	.86	.72 - .80	.87 - .92	79.18
	Personal Factors	4	.80	.49 - .74	.67 - .88	63.12
	Social Environment	4	.91	.74 - .85	.85 - .92	79.44
Antecedents of Consumer Behaviour	Price	4	.91	.71 - .85	.82 - .93	78.17
	Resources (income)	3	.95	.88 - .92	.95 - .97	90.9
	Utility	5	.86	.51 - .79	.66 - .87	64.86
Focal constructs	Preference	4	.80	.48 - .74	.66 - .88	64.89
	Consumer Behaviour	3	.86	.58 - .83	.78 - .94	78.9

<sup>a</sup> Items with item-total correlations less than .30 and factor loadings less than .50 have been omitted

<sup>b</sup> Reports coefficient alpha (if more than one item)

<sup>c</sup> Average Variance Extracted is reported when there are more than two items

First, internal consistency (reliability) was examined by means of the Cronbach alpha coefficient (Nunnally, 1978). For all of the constructs, Cronbach alphas exceeded the 0.7 threshold indicating that the measures exhibited good internal consistency (Nunnally, 1978). Second, principal component analysis was conducted on each construct to check for unidimensionality. The results reported high loadings on the intended factors, providing support for the unidimensionality of the measures (see Table 13).

Next, the construct validity of the measures was examined. Results show that correlations among the components of each scale are strong and significant at 0.001 level. Additionally, each component is also highly correlated with the overall measure of each scale, and thus, evidence has been obtained of convergent validity. Discriminant validity was tested through a factors analysis. The results report high loadings on the intended factors



confirming a clear distinction between the constructs, and therefore, provide evidence for discriminant validity.

Moreover, since the current study followed a single-informant approach, several procedural remedies were employed against potential problems associated with common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Common-method bias involves a bias in the responses due to the external nature of the measures. First, respondents were guaranteed anonymity and confidentiality of their personal data to reduce evaluation apprehension. Second, clarity of the measurement items was achieved by using pre-validated scales and by pre-testing the questionnaire. Third, the Harman's single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) was used. The first factor accounted for 29% of the variance and no common factor underlying the data was found. It can be concluded that one latent factor does not account for all marked variables, and therefore, common-method bias appears not to be a problem in this study (Podsakoff *et al.*, 2003).

Since all the requirements were satisfied, the items of each construct were aggregated by calculating the scale mean to proceed with the subsequent data analysis and the hypotheses testing so, a composite measure is developed for each multi-dimensional construct for subsequent analysis, pertaining to the testing of our hypotheses (scale properties are presented in the Appendix).

## 5.2. Descriptive Statistics

Having established confidence in the measures, the descriptive statistical analysis is the next step, which helps to gain a better understanding of the constructs under investigation before proceeding with the main multi-variate analysis and the hypotheses testing.

The descriptive statistics are presented referring to the average mean and the standard deviation of the new scales emerged from the aggregation of the items of each construct (scale variables), as well as, the original variables (questions) of the questionnaire.

The **Mean (M)**, also called arithmetic mean, is the average of the numbers and is computed as the sum of the values divided by their number.

The **Standard Deviation (SD)** measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance (SD, also represented by the lower case Greek letter sigma  $\sigma$  or the Latin letter s). The Standard Deviation is a measure of the way numbers are spread out. A low standard deviation indicates that the data points tend to be close to the mean of the set, while a high standard deviation indicates that the data points are spread out over a wider range of values.

In addition, the **Frequencies** of the data are presented. The frequency of a particular value is the number of times it occurs in the sample. Frequency statistics are mostly calculated for summarizing categorical variables because continuous variables tend to have many distinct values. These result in huge tables and charts that don't provide any useful insight, that's why the continuous variables of the study are evaluated by means of Mean and Standard Deviation statistics, described above.

First, the frequencies of the **type of electronic product** are reported below. The results of the table 14 that follows show that mobile phones/smartphones (46.4%) is the dominant type of electronic product the participants considered when filling in the questionnaire, followed by laptops/PCs (16.8%). This is explained as nearly all people nowadays have a mobile phone/smartphone (often, more than one) and a laptop/PC, as opposed to other types of electronic products that not everyone has, such as e-book devices and electronic toys/games. Considering the hours that users tend to spend with mobile

phones/smartphones and laptops/PCs every day and the level of familiarity this creates, it is highly expected that participants mainly focused on these types of electronic products. Important to note though that many other types of electronic products (9 in total) were selected, counting for 37.8% of the total responses, indicating that the types of electronic products emerged from the results are sufficiently balanced and heterogeneous, providing thus generalisability of the findings.

Table 14: Type of Electronic Product		
	Frequencies	Percentage
Mobile phones/ smartphones	127	46.4
Audio players (e.g. CD players, MP3 players)	17	6.2
Tablets	17	6.2
TV sets	11	4.0
Laptops/ PCs	46	16.8
GPS navigation devices	9	3.3
DVD/ Blue-Ray players	9	3.3
Digital cameras	14	5.1
Calculators	6	2.2
Electronic toys/ games	10	3.6
E-book devices	8	2.9
Other	0	0.0
Total	274	100,0

The table 15 that follows reports the descriptive statistics (mean and standard deviation) of the antecedents of preferences. The results show that, in general, participants score high values in the questions that tap the constructs of Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors and Social Environment. This gives us preliminary evidence of the importance the participants attach on these variables in the formulation of their preferences. Moreover, the standard deviation appears to be reasonably high across the measurement items, indicating that responses are spread out over a wider range of values which provides evidence of the heterogeneity and generalizability of the responses.

With regard to the **Prior Knowledge** scale, the item 'I am familiar with XYZ' (mean = 5.69) has a relatively higher mean score comparing to the other, with also highly scored means, items of the scale (mean ranging from 4.79 to 5.28). This indicates a significant role of the familiarity towards a target when it comes down to formulate preferences and short list the alternative offerings in the market.

The findings also report consistent high mean scores for the **Emotions** scale items (mean ranging from 4.38 to 5.36), which confirms the importance of Emotions as a key driver of formulating preferences. This is also consistent to a body of literature on value creation in consumer contexts that have identified the role of emotions as a key determinant of customer value and subsequent customer behavioural intentions, including favourable preference towards a product target (Gounaris, Tzempelikos, and Chatzipanagiotou, 2007; Sweeney and Soutar, 2001).

Interestingly, the first two items of the **Word-of-Mouth** scale, namely 'I say positive things about XYZ to other people' (mean = 4.85) and 'I recommend XYZ to someone who seeks your advice' (mean = 5.28), report significantly higher mean scores comparing to the third item of the scale, namely 'I encourage friends and relatives to do business with XYZ' (mean = 3.89). This indicates that satisfied customers might share positive comments about a target to friends and relatives or even recommend it to them, if being asked. However, they seem somewhat reluctant to take the initiative and encourage others to purchase the product target which is in line with a general belief in marketing theory that customers communicate their positive experiences to less people as opposed to a negative experience that they are keen to communicate to many others (Kotler and Armstrong, 2018).

Coming to the **Personal Factors** scale, it is noteworthy that the item 'I consider XYZ as a safe (not risk) choice' (mean = 6.60) has a higher mean score comparing to the

other, with also highly scored means, items of the scale (mean ranging from 5.03 to 5.76). This finding highlights the importance of safety/not-risk as a key driver of selecting product target. This is particularly important in high involvement products, like many electronic products (such as laptops, smartphones, TV sets, etc.) that the present study examines, where the high price and the high perceived importance increase the customer's reluctance and uncertainty before proceeding with a purchase. Therefore, individuals seek for evidence of safety/not-risk to minimise this uncertainty which probably explains the relatively high score of this item.

Finally, the descriptive analysis for the **Social Environment** scale reports particular interesting results. The values of the scale items, although remain consistently high (mean ranging from 4.31 to 4.74), they are still relatively lower than the other antecedents of preferences (Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors). This is probably explained by the fact that often consumers are rather reluctant to admit that their preferences and choices are influenced by what others do and behave, even though this might be the case. They feel that this would 'weaken' their personality and critical judgement, they tend to argue that their behaviour is free from external influences or social pressure (e.g. reference groups) and that they do not follow any trend from their social environment. In this context, it is no surprise that the item 'XYZ is well received by others (friends, family)' has a relatively higher mean score (mean = 4.74) comparing to the other items of the scale (mean ranging from 4.31 to 4.51). The item implicitly, and not explicitly, attempts to capture the role of social environment in the formulation of consumer's preferences, as opposed to the other three items that tap into the meaning of the construct in a more direct and explicit way.

Table 15: Antecedents of Preferences

Items	Mean	St. Deviation
<b>PRIOR KNOWLEDGE<sup>2</sup></b>		
I consider myself knowledgeable about XYZ	5.12	1.33
I know much about the different features of XYZ	4.79	1.65
I have sufficient knowledge about XYZ	5.00	1.46
I am familiar with XYZ	5.69	1.34
I know pretty much about XYZ	5.28	1.51
<b>EMOTIONS<sup>3</sup></b>		
XYZ makes me feel good	4.99	1.59
I have positive feelings towards XYZ	4.38	1.83
Love to use XYZ	5.36	1.48
Is pleasant while using XYZ	5.23	1.35
<b>WORD OF MOUTH<sup>4</sup></b>		
I say positive things about XYZ to other people	4.85	1.57
I recommend XYZ to someone who seeks your advice	5.28	1.63
I encourage friends and relatives to do business with XYZ	3.89	1.84
<b>PERSONAL FACTORS</b>		
My personality fits to XYZ	5.03	1.50
I deserve to have XYZ	5.03	1.62
My lifestyle fits to XYZ	5.76	1.37
I consider XYZ as a safe (not risk) choice	6.6	1.26
<b>SOCIAL/ ENVIRONMENT<sup>5</sup></b>		
XYZ is well received by others (friends, family)	4.74	1.54
XYZ improves my image	4.51	1.81
XYZ makes good impression	4.38	1.67
XYZ gives me social approval	4.31	1.82

<sup>2</sup> Park and Mothersbaugh (1994); Mitchell and Dacin (1996); Srinivasan and Ratchford (1991); Flynn and Goldsmith

(1996); Dheeraj Awasthy, Arindam Banerjee, Bibek Banerjee, (2012)

<sup>3</sup> Newly developed scale and items from Sweeney and Soutar (2001)

<sup>4</sup> Zeithaml et al. (1996)

<sup>5</sup> Sweeney and Soutar (2001)

Coming to the **Preferences** construct, the results shown in Table 16, confirm the importance of the four items that comprise the Preferences scale reporting consistent high mean scores (mean ranging from 4.91 to 5.79). The dominating dimensions appear to be 'I consider XYZ the right product for me' (mean = 5.76) and 'I don't regret choosing XYZ' (mean = 5.79), while 'I prefer XYZ among other competitive products in the marketplace' (mean = 4.91) and 'XYZ is the first choice for me when choosing from this type of products' (mean = 5.42) seem to be of considerable importance lower though than the first two aforementioned scale items. This indicates that although the role of the competition and the availability of alternative offerings in the marketplace are always taken into consideration and influence the preferences, the key criterion for choosing a product target is whether it is suitable and meets the needs and, consequently, consumers don't regret choosing it after the purchase and consumption.

Table 16: Preferences		
Items	Mean	St. Deviation
<b>PREFERENCE</b>		
I consider XYZ the right product for me	5.76	1.13
I prefer XYZ among other competitive products in the marketplace	4.91	1.65
XYZ is the first choice for me when choosing from this type of products	5.42	1.35
I don't regret choosing XYZ	5.79	1.17

Coming to the antecedents of Consumer Behaviour, the multi-item scales of Price (mean ranging from 4.70 to 5.47) and Utility (mean ranging from 4.21 to 5.66) report high mean scores. With regards to the **Price** scale, the item 'The price of XYZ corresponds to its quality' (mean = 5.47) reports the highest mean score which indicates the increasing importance of the customer perceived value for money trade off, when evaluating whether a price is worthwhile.

The findings of the **Utility** scale show that the item 'My expectations by using XYZ are satisfied' (mean = 5.66) has the highest mean score among all scale items. This provides support to the Disconfirmation Model of Customer Satisfaction as a key theory that explains consumer behaviour (Oliver, 1980). In brief, the Disconfirmation Model of Customer Satisfaction argues that consumers compare their initial expectations of likely value against their perception of the actual value they received when they purchased or consumed a product target. Because they are comparing two aspects (prior expectations to actual delivery) they are essentially confirming (or disconfirming) how well the organization has delivered. Based on the findings of the aforementioned scale item, the Disconfirmation Model of Customer Satisfaction appears to be a dominant aspect of the consumer perceived utility from the use of the products.

Table 17: Antecedents of Consumer Behaviour

Items	Mean	St. Deviation
<b>PRICE</b>		
I consider the price of XYZ right	4.89	1.33
I was happy to pay the price of XYZ	4.70	1.50
The price of XYZ is reasonable	4.77	1.38
The price of XYZ corresponds to its quality	5.47	1.27
<b>UTILITY</b>		
My happiness is increased by using XYZ	4.72	1.65
My satisfaction is increased by using XYZ	5.11	1.51
My happiness is increased by using XYZ against a substitute product	4.21	1.72
My satisfaction is increased by using XYZ against a substitute product	4.32	1.73
My expectations by using XYZ are satisfied	5.66	1.00
My income would allow me to buy a new version of XYZ	5.02	1.59
Based on my income, I would be happy to buy a new version of XYZ	4.67	1.78
Based on its price, I would be happy to buy a new version of XYZ	4.38	1.68



In next, the findings of the **Resources (income)** are presented, a key determinant of consumer behaviour. The frequencies of the question ‘Would you be happy to pay more for XYZ if price increases?’, as shown in the table below, show balanced results. 137 (50.2%) participants replied ‘yes’, while 136 (49.8%) replied ‘no’. Considering the importance of the price as a key criterion of selecting a product target, especially to more price sensitive consumers, this finding highlights the role of the available resources (income), as a key condition, in order to re-purchase the product. The finding also provides evidence that satisfied customers tend to be loyal to the product even if price increases. This also represents a key message for the suppliers, meaning that the building of switching costs via the delivery of products/services that meet consumers’ needs enables the firm to set high, or even price premium, prices without losing the majority of their customer base.

Table 18: Resources (Income) - Would you be happy to pay more for XYZ if price increases?		
	Frequencies	Percentage
Yes	137	50.2
No	136	49.8
Total	273	100,0

Consistently, coming to the precise description of the price increase that the customers can ‘absorb’ and afford in order to continue purchasing the same product, the results on table 19 show that among the consumers that are willing to pay more if the price increases, more than 50% (53.1%) are happy to pay more than 10% price increase in order to purchase the product again. This is clearly an outcome of sufficient resources (income) – otherwise, the customer would not be able to pay for a higher price although they may want to. This finding also highlights the importance of keeping customers satisfied so as to maintain the customer base if there is a considerable price increase.

Table 19: Resources (Income) - If yes, how much more from the price that you have originally paid for XYZ are you willing to pay?:		
	Frequencies	Percentage
2%	21	14.7
5%	46	32.2
10%	47	32.9
15%	15	10.5
20%	12	8.4
30%	1	.7
40%	1	.7
Total	143	100,0

Coming to the multi-item measurement of Resources (income), as shown in the table below, the participants confirmed that the affordability of the product should be examined in relation to the price (mean ranging from 4.78 to 5.14). Customers, in particular, appear to be concerned with 'The cost of XYZ did not exceed my available budget' (mean = 5.14), indicating that the available resources should not exceed a pre-determined budget as otherwise this would probably have an adverse effect on other personal and/or family priorities.

Table 20: Resources (income)		
Items	Mean	St. Deviation
<b>RESOURCES (INCOME)<sup>6</sup></b>		
	5.13	1.65
My income was sufficient to purchase XYZ		
Considering my income, I found the cost of XYZ affordable	4.78	1.74
The cost of XYZ did not exceed my available budget	5.14	1.69

The results of whether the participants have purchased the chosen product (XYZ) in the past are shown in table 21 below. Most of the participants (76.2%) replied that they have

<sup>6</sup> Park and Mothersbaugh (1994); Mitchell and Dacin (1996); Srinivasan and Ratchford (1991); Flynn and Goldsmith (1996); Dheeraj Awasthy, Arindam Banerjee, Bibek Banerjee, (2012)

purchased the product in the past. This is somewhat expected as, typically, individuals feel more comfortable and have sufficient knowledge to discuss about products they possess and have used them for some time. This also adds to the accuracy of the responses about all aspects of preferences and consumer behaviour the study examines.

Table 21: Have you purchased XYZ in the past?		
	Frequencies	Percentage
Yes	208	76.2
No	65	23.8
Total	273	100,0

The results of the question that refers to, 'if the customers have purchased the chosen product (XYZ)', 'how many items of the product (XYZ) or different versions (size, improved technology, etc.) of the product (XYZ) they have purchased', report that 35.3% of the total have purchased one item, 30.8% of the total have purchased two items and 33.9% have purchased more than two. Clearly, this finding is associated with the nature of the product target (e.g. consumers typically buy mobile phones/smartphones more often than a TV set). At the same time though, the finding demonstrates the commitment consumers feel towards a product target that have selected in the past and, probably, perceive high utility and satisfaction from its use.

Table 22: If you have purchased in the past, how many items of XYZ or different versions (size, improved technology, etc.) of XYZ have you purchased?:		
	Frequencies	Percentage
1	78	35.3
2	68	30.8
3	42	19.0
4	17	7.7

5	10	4.5
6	4	1.8
7 or more	2	0.9
Total	221	100,0

Coming to the **Quantity** variable, representing the 'intention to purchase more items of the chosen product (XYZ) or different version of XYZ in the future', the results show a rather high mean score (mean = 4.53) indicating that high levels of satisfaction and perceived utility are likely to lead to favourable behavioural intentions, such as the repurchase intention. Important to note that although this score is, in general, high still is not considered very high comparing to other measurement items of the study (e.g. means over 5.50). This is probably explained by the fact that although customers have a favourable attitude towards a target, they are not able to translate this attitude into behaviour and repurchase it due to a number of factors that may occur (e.g. the birth of a child may change the nature and the number of electronic products the parents may want to purchase – may no longer wish a to buy a camera over other family commitments/ expenses). This is consistent with the argument that past behaviour is not necessarily the best predictor for consumers' behavioural intentions (Bagozzi and Warshaw, 1990), especially when they lack a real emotional attachment towards a product target and have been purchasing for other reasons, such as convenience or lack of sufficient number of alternatives (Dick and Basu, 1994).

Table 23: If you have purchased XYZ in the past:

Items	Mean	St. Deviation
<b>QUANTITY</b>		
I am planning to purchase more items of XYZ or different version of XYZ in the future	4.53	1.71

To this end, the results of the **Consumer Behaviour** multi-item scale are shown in table 24. The results report high mean scores (mean ranging from 4.45 to 5.71) indicating that

the familiarity, knowledge and, probably, favourable attitude towards a target and prior satisfaction from its use, can lead to favourable behaviours as these are expressed by the intention to buy the chosen product target (XYZ) in the future over other alternative offerings. Important to note the particular high mean score of the item 'When/if a need of a product of this kind comes, XYZ will be my first choice' (mean = 5.71) which underlines the association between the need and the product that meets the need as a key driver of consumer behaviour. Consumers may eventually not proceed with a purchase due to various reasons (e.g. income, different family priorities, variety, change of preferences, etc.) but if a product meets their needs, they will probably have every intention to do it.

Table 24: Consumer Behaviour

Items	Mean	St. Deviation
<b>CONSUMER BEHAVIOUR</b>		
I will prefer to buy XYZ over alternative products/brands in the marketplace	4.45	1.71
I have every intention to buy XYZ in the future	4.69	1.60
Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	4.76	1.54
When/if a need of a product of this kind comes, XYZ will be my first choice	5.71	3.35

### 5.3. Correlations

The means, standard deviations and correlations among the constructs, as operationalised by the scale variables, are shown in Table 25. Correlation generally refers to how close two variables are for having a linear relationship with each other (Boddy and Smith, 2009). Correlation produces the correlation coefficient represented typically by the letter  $r$ , which measures the strength and direction of linear relationships between pairs of continuous variables in a single value between -1 and +1. By extension, the Pearson Correlation evaluates whether there is statistical evidence for a linear relationship among

the same pairs of variables in the population, represented by a population correlation coefficient,  $\rho$  ('rho').

The correlation coefficient between two continuous-level variables is also called Pearson's ('r') correlation coefficient. A positive  $r$  value expresses a positive relationship between two variables (the larger A, the larger B) while a negative  $r$  value indicates a negative relationship (the larger A, the smaller B). A correlation coefficient of zero indicates no relationship between the variables at all.

The results of the correlation analysis shown in table 25 provide a first examination of the relationships emerging by the variables assessed, and hence, there is preliminary evidence of the confirmation or rejection of the hypotheses tested.

The results show that the proposed antecedents of Preferences (Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors, Social Environment) have a statistically significant relationship ( $p < 0.05$ ). The direction of the relationships is positive, meaning that these variables tend to increase together (i.e., greater Word-of-Mouth is associated with greater Prior Knowledge). This is a reasonable finding as, very often, the antecedents of a dependent variable (Preferences, in this case) tend to covariate. The only exception is the relationship between Prior Knowledge and Social Environment which was found to be insignificant ( $r = .10, p > 0.05$ ).

The results also show a strong and positive relationship between Prior Knowledge ( $r = .38, p < 0.01$ ), Emotions ( $r = .44, p < 0.01$ ), Word-of-Mouth ( $r = .55, p < 0.01$ ), Personal Factors ( $r = .53, p < 0.01$ ), Social Environment ( $r = .42, p < 0.01$ ), and Preferences. This means that changes in the proposed antecedents of Preferences (Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors, Social Environment) are strongly correlated with changes in the Preferences variable (i.e. strong relationship) and, also, means that

as one of the variables increases in value, the Preferences variable also increases in value (i.e. positive relationship). **This finding provides preliminary evidence of the confirmation of the research hypotheses (H1–H5)** which aim to explore the relationships between those variables. The strength of the association provides additional evidence of the expected high percentage of the variance of Preferences explained by the proposed antecedents, which will be accepted or rejected in the subsequent regression analysis presented in the next section.

The results also indicate a particularly strong positive relationship between Word-of-Mouth and the other antecedents of Preferences, namely Prior Knowledge ( $r = .48, p < 0.01$ ), Emotions ( $r = .45, p < 0.01$ ), Personal Factors ( $r = .51, p < 0.01$ ), and Social Environment ( $r = .35, p < 0.01$ ). This means that changes in one variable (Word-of-Mouth) are strongly correlated with changes in others (Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors, and Social Environment). This indicates that consumers' favorable (or non-favorable) attitude and positive (or negative) feelings towards a target are strongly associated to the positive (or negative) recommendations from family and friends. This is probably explained as others' recommendations are generally considered more reliable and objective opposed to company-focused activities (e.g. promotion).

Important to note that although Prior Knowledge was found to have a positive relationship with Emotions ( $r = .18, p < 0.01$ ), and Personal Factors ( $r = .30, p < 0.01$ ), the strength of the association is moderate compared to the relationships between the other antecedents. This reveals that the prior knowledge towards a product target is relatively indifferent to the consumer's personality or the emotional value that emerges from its use. The prior knowledge relates to preferences, but rather moderately relates to who the consumer actually is and feels towards a target. In line with this viewpoint, Prior Knowledge was found to be insignificant to Social Environment ( $r = .10, p > 0.05$ ), which means that

changes in consumers' experience and learning are not correlated with changes in social influence (or even pressure) about the use of a product target.

Coming to the antecedents of Consumer Behaviour, the results suggest Consumer Behaviour to have a strong and positive relationship with Price ( $r = .31, p < 0.01$ ), Utility ( $r = .53, p < 0.01$ ), Quantity ( $r = .81, p < 0.01$ ) and Preferences ( $r = .63, p < 0.01$ ), providing preliminary evidence of the **H6-H9**. The strength of the relationships and the positive direction (Pearson's 'r' is positive) indicates that the more affordable a price is, the higher the level of utility extracted from the use of a product target, the higher the amount of its quantity and the more positive preferences are towards that, the favorable Consumer Behaviours increase in value. However, the results showed no statistical significant relationship between Resources (income) and Consumer Behaviour ( $r = -.09, p > 0.05$ ) providing thus no preliminary support for **H7**. A possible explanation is that although the role of the available resources in a purchase process is somewhat self-evident, the role the resources play in the formulation of the favorable behavioural patterns is limited. In other words, the weak relationship between these two variables implies that changes in income (increase or decrease) are not necessarily associated with changes in behaviour or decision to purchase a specific product target; other factors can influence the consumer behaviour as well.

Some points must be underlined here. First, and consistent to the above discussion, the Resources (income) are found to have a moderate and negative relationship with Preferences ( $r = -.18, p < 0.01$ ). This indicates that consumers' personal preferences are independent to the actual resources needed in order to acquire a target. For example, consumers may have strong preferences towards luxurious/premium priced products but may not have the income to proceed with the purchase. In other words, they have the attitude and the emotional attachment towards a target but they don't have the behaviour,



meaning the purchase itself. This means that as resources (income) increase in value, preferences may decrease in value as consumers can turn to more premium-priced products, which probably explains the negative relationship between the two variables.

Second, as hypothesized (i.e. **research hypothesis H6**), the results show there is a strong relationship between Preferences and Consumer Behaviour ( $r = .63, p < 0.01$ ). Conceptually, this is explained as it is logical to assume that positive attitude and preference, is very likely to lead to favorable behaviour and purchase (or re-purchase). On a broader level though, this finding also provides evidence to the key assertion that Preferences, as opposed to the traditional Economics theory, is a critical driver in the formulation of the consumer behaviour (selection, decision to purchase, quantity of purchase, etc.) and must be seriously taken into consideration when trying to explain consumer behaviour towards a set of competitive alternatives.

Third, the results around the relationship between Price, Resources (income), Quantity, Utility and Preferences were mixed. The relationship between Price and Resources (income) ( $r = .30, p < 0.01$ ), Quantity ( $r = .35, p < 0.01$ ), Utility ( $r = .37, p < 0.01$ ) and Preferences ( $r = .28, p < 0.01$ ) is significant and positive, however the strength of the relationship is rather moderate. This finding reveals the association but, at the same time, the uni-dimensionality of the proposed antecedents of the consumer behaviour and the examination of all of them is deemed appropriate. Conceptually wise, the rather moderate strength of the association indicates that the Price is, without doubt, a critical factor for when making a purchase decision, but a low/affordable price does not necessarily result in favorable preference or increased utility from the use of a product target.

Fourth, the Resources (income) variable was found to have a significant though negative and rather moderate association with Utility ( $r = -.23, p < 0.01$ ) and Preferences ( $r = -.18, p < 0.01$ ). A possible explanation of this interesting finding is that the more desirable a

target is, the higher utility and more favorable preference, the more expensive/less affordable this might be. Therefore, as Resources (income) increases in value, Utility and Preference may decrease in value.

Fifth, this preliminary analysis indicate that the Quantity variable is considered as a significant determinant of the consumer behaviour, at this early stage at least. The association between the Quantity and the Consumer Behaviour is positive and significant ( $r = .81$ ,  $p < 0.01$ ), which essentially means that consumers tend to get more satisfaction from the additional consumption. However, as discussed previously, this cannot be sustainable for long periods of time, as at some point, satiation occurs. Also, not surprisingly, Quantity is positively associated with price ( $r = .35$ ,  $p < 0.01$ ) which can be potentially explained by the perception that higher prices for regular commodities are expected to contain more quantity and vice versa. Interesting enough is the fact that Resources (income) is not correlated at all with quantity ( $r = .02$ ,  $p > 0.05$ ) meaning that even for consumers with lower income levels, their judgement is not affected at all by the quantity variable.

Finally, the results show that there is a strong and positive relationship between Utility and Preferences ( $r = .66$ ,  $p < 0.01$ ). This is expected as when consumers experience high levels of satisfaction and happiness from the use of a product target, it is very likely to have strong preference for this target in future purchases. From a broader theoretical viewpoint, this strong association provides evidence that the Utility theory can absorb part of the variance of the Preferences construct and partly explains why/ how costumers prefer one product over alternatives.

Table 25: Means, Standard Deviations and Correlations

	Mean	S.D	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Prior Knowledge (1)	5.18	1.35	1										
Emotions (2)	4.99	1.40	.18**	1									
Word-Of-Mouth (3)	4.67	1.50	.48**	.45**	1								
Personal Factors (4)	5.48	1.13	.30**	.45**	.51**	1							
Social Environment (5)	4.49	1.52	.10	.50**	.35**	.51**	1						
Price (6)	4.96	1.21	.12*	.21*	.24**	.42**	.12*	1					
Resources (income) (7)	5.02	1.62	-.13*	-.11	-.05	.58	-.26**	.28**	1				
Utility (8)	4.81	1.24	.33**	.65**	.49**	.56**	.60**	.37**	-.23**	1			
Preferences (9)	5.47	1.06	.38**	.44**	.55**	.53**	.42**	.28**	-.18**	.66**	1		
Consumer Behaviour (10)	4.64	1.43	.32**	.33**	.41**	.33**	.41**	.31**	-.09	.53**	.63**	1	
Quantity (11)			.32**	.21**	.38**	.30**	.33**	.35**	.02	.38**	.47**	.81**	1

\* $p < 0.05$ . \*\* $p < 0.01$

#### 5.4. Hypotheses Testing

##### 5.4.1. Regression Analysis – Direct Effects

The next phase of the analysis involves the research hypotheses testing by means of regression analysis. Regression analysis is a set of statistical processes for estimating the relationship between a dependent variable and one or more independent variables (or 'predictors'). For the current purpose, examine the relationship between Preferences (dependent variable) and its predictors and the relationship between Consumer Behaviour (dependent variable) and its predictors will be examined.

The results of the regression analysis are presented in Table 26. The results show that the effect of Prior Knowledge ( $\beta = .15$ ,  $p < .01$ ) and Emotions ( $\beta = .13$ ,  $p < .01$ ) on Preferences is significant, thus supporting **H1** and **H2**. **H3**, and a positive effect of Word-of-Mouth on Preferences, is also supported ( $\beta = .26$ ,  $p < .01$ ). Personal Factors also has

a positive effect on Preferences ( $\beta = .21, p < .01$ ), thus supporting **H4**. Finally, Social Environment has a positive impact on Preferences ( $\beta = .14, p < .01$ ), hence, **H5** is supported. The results therefore indicate that all hypothesized antecedents of Preferences are statistically significant providing support to conceptualization suggested.

On the whole, the findings exhibit a significant though rather moderate impact of the hypothesized predictors on Preferences. While the importance of the variables in the formulation of Preferences is confirmed, it also indicates that other factors (that may relate to the supplier, the consumer, or even the retailers) beyond the scope of the study, may also affect Preferences. The examination of additional factors, possibly integrating data from various sources (consumer, suppliers, etc.) is an interesting opportunity for future research which is detailed in the last section of the study. Important to note that Word-of-Mouth is found to have the highest impact on Preferences among the other predictors ( $\beta = .26, p < .01$ ) which indicates the particularly important role of positive recommendations from peers in the formulation of positive or negative preference towards a product target. This is probably due to the fact that Word-of-Mouth is often considered more objective and reliable, comparing to other types of marketing tools, such as traditional advertising, media mentions, or promotional events.

The table 26 also provides the  $R^2$  values. The  $R^2$  value (or R Square) represents the proportion of variance in the dependent variable (e.g. Preferences, Consumer Behaviour) which can be explained by the independent variables (or predictors). Interestingly, the constructs of Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors and Social Environment) together **explain 41.7% ( $R^2 = .417$ ) of the variation in Preferences**, which suggests that a significant portion of the variance of how Preferences are formulated is explained by the hypothesized predictors. Apparently, additional factors, both supplier-focused (e.g. marketing activities) and/or customer-focused (e.g. other

personality factors), may also be responsible for the customer preferences. However, the finding shows that the variables this study has identified are able to explain a significant proportion of the variance of Preferences providing additional evidence of the validity of the current conceptualization.

Coming to the variables assessment that affect Consumer Behaviour, the results depicted in Table 26 show that the effect of Preferences ( $\beta = .29, p < .01$ ) on Consumer Behaviour is positive and significant, thus supporting **H6**. Quantity ( $\beta = .67, p < .01$ ) is also found to affect Consumer Behaviour, hence **H7** is supported. There is no statistically significant relationship between Price and Consumer Behaviour, failing to support **H8**. Finally, the results show that the impact of Resources (income) on Consumer Behaviour is insignificant revealing that **H9** is also not supported.

Contrary to the traditional belief that when a price is low, a product becomes competitive, the findings indicate that the price is just a criterion, not the only criterion, a consumer considers during the decision-making process. The reality in the consumer electronics sector provides support to this argument – the most successful brands (e.g. Apple) tend to be price premium. In addition, the results imply that the income may be a necessary condition to buy a product but it is not sufficient. It is highly unlikely that consumers will purchase a product target just because they have the money to do it. There should be a positive preference towards the product as well. The results, as hypothesized, also reveal the role of the preferences as a key predictor of Consumer Behaviour. Also, as expected, the results reveal a strong relationship between the quantity of a product consumers have purchased in the past and/or planning to do in the future and the Consumer Behaviour. This is explained as a large quantity of products purchased signals both, positive attitude towards a product and ability to purchase it, which directly links with a subsequent favorable behaviour. In short, the results indicate that price and income,

alone, are not sufficient predictors of behaviour. The consumer behaviour is primarily driven by preferences and the quantity purchased, which also signals a favorable attitude towards a target.

Another interesting finding is the proportion of variance in Consumer Behaviour that can be 'explained' by the four suggested predictors (Preferences, Quantity, Price, Resources). The results in Table 26 show **that 72.9% ( $R^2 = .729$ ) of Consumer Behaviour can be explained**, which is very high. This finding indicates that these variables suggest critical predictors of Consumer Behaviour, and hence, provide support to the validity of the conceptualization.

Table 26: Estimation Results

Estimates		Standardize d regression weights	t-test	Hypothesi s
<b>Paths</b>	<i>Dependent variable: Preferences</i>			
	Prior Knowledge → Preferences	.15	2.50**	H1
	Emotions → Preferences	.13	2.14**	H2
	Word-of-Mouth → Preferences	.26	4.05**	H3
	Personal factors → Preferences	.21	3.37**	H4
	Social Environment → Preferences	.14	2.59**	H5
	<i>Dependent variable: Consumer Behaviour</i>			
	Preferences → Consumer Behaviour	.29	7.54**	H6
	Quantity → Consumer Behaviour	.67	17.152**	H7
	Price → Consumer Behaviour	.02	.60	H8
	Resources (income) → Consumer Behaviour	-.03	-.91	H9
<b>R<sup>2</sup></b>	R <sup>2</sup> (Preferences)	.42		
	R <sup>2</sup> (Consumer Behaviour)	.73		

Note: Reported values are standardized coefficients (betas).

R<sup>2</sup>: explained variance in endogenous construct

\* $p < 0.05$ . \*\* $p < 0.01$ .

#### 5.4.2. Regression Analysis – Competing Model Testing

The next step in the analysis is to examine the conceptual model underlying this study against a set of rival models, where the construct of Preferences is considered, both directly measured, as well as, indirectly, through its predictors. The construct of Preferences has a central nomological status in the conceptual framework of the study regarding its influence on the consumer behaviour. However, this argument is not, typically, embraced by the traditional Economics theory. Therefore, this analysis is deemed appropriate as it sheds more light on the applicability of the theory and/or the need for considering additional factors to explain better consumer behaviour.

The original view would be suggesting only direct paths from each of the Price, Resources (income) and Quantity, key antecedents of Consumer Behaviour according to the Economic theory. The rival models, presented in the Tables below retain the aforementioned variables, as their role as predictors in Consumer Behaviour is also supported in the study, but at the same time, the models include the parameter of Preferences, both as directly measured construct (composite variable) and indirectly through its predictors (Prior knowledge, Emotions, Word of Mouth, Personal Factors, and Social Environment), so that there is more confidence on the findings about the assessment of the role of Preferences.

Using insights from the Moderated Regression Analysis, often used in business/marketing studies, a technique that tests whether the relationship between two variables depends on a third variable and is often assessed by means of comparing groups (Arnold, 1982), and the Sensitivity Analysis, often used in Economics studies (Briggs and Sculpher, 1995), which represents a technique used to determine how independent variable values impact a particular dependent variable under a given set of assumptions, the competing models were tested by means of regression analysis. In short, the current analysis seeks to determine the change in  $R^2$  resulting through a set of

consecutive regression models: First, the dependent variable (Consumer Behaviour) is regressed against the independent variables (Price, Resources, and Quantity) (original model). Then, the dependent (Consumer Behaviour) is regressed against the previous independent variables and the potential independent (Preferences) (rival models). In other words, the construct of Preferences (either through its predictors or as a directly measured variable) is incorporated in the regression equation. This process was repeated for each different antecedent of Preferences, which was added to each previous one, and then with the directly measured composite variable of Preferences.

Starting with the inclusion of the predictors of Preferences, from Table 27, it is clear that when the variables (Prior knowledge, Emotions, Word of Mouth, Personal Factors, and Social Environment) are added, the  $R^2$  is increasing from .669 (original model) to .699 (rival model). This means that when Preferences are added in the equation, the independent variables explain 69.9% of the variance of Consumer Behaviour, an increase comparing to the explained variance of 66.9% which was scored without the Preferences, and, thus, the suggested conceptualization that Preferences is a significant determinant of Consumer Behaviour is supported. Likewise, when Preferences as directly measured (composite variable) was added in the equation, shown in Table 27, as an additional quality check of the previous regressions, the results also show that the  $R^2$  is increasing from .669 (original model) to .729 (rival model). This means that when Preferences are added in the equation, the proportion of the variance that is explained from the independent variables increases from 66.9% to 72.9%, providing additional support to the suggested conceptualization about the important role of Preferences in influencing Consumer Behaviour.

The rather moderate though significant increase of  $R^2$  provides evidence that Preferences is a significant influence of the Consumer Behaviour and hence is a factor



that should be considered by researchers and practitioners when examining its drivers. From a broader theoretical viewpoint, while the results support the predictive power of the Economics perspective in explaining Consumer Behaviour in consumer electronics markets, as this is shown by the high value of  $R^2$  of the original model which is .669 indicating that 66.9% of the variance of Consumer Behaviour is explained by Price, Resources (income) and Quantity variables, the results are consistent with the main argument of the study which posits that although the factors emerged from the Economic theory definitely should not be overlooked, the Preferences, the study of whom is the main focus of Consumer Research, should also be considered when trying to estimate the factors that influence the Consumer Behaviour. Overall, the results indicate that Economics and Consumer Research suggest relevant approaches in explaining how favorable Consumer Behaviour can be generated. However, neither Economics nor Consumer Research alone, are able to fully absorb and explain the variance of the consumer behaviour – the addition of Preferences, which has been identified from the Consumer Research as a key parameter increases the predictive power of the set of predictors. Therefore, and this support the original argument, an integration between Economics and Consumer Research is deemed necessary in order to better understand the factors that affect Consumer Behaviour.

**Table 27:** Analysis of competing structural models – Assessment of Preferences (individual drivers of the Preference construct)

Variables under examination: Prior knowledge (Preference 1)					
Model 1: Original Model (R <sup>2</sup> = .669)			Model 2: Rival Model (Preferences: composite measure) (R <sup>2</sup> = .672)		
	$\beta$	t-value		$\beta$	t-value
Price → Consumer Behaviour	.06	1.56	Price → Consumer Behaviour	.06	1.52
Resources (income) → Consumer Behaviour	-.10	-2.54*	Resources (income) → Consumer Behaviour	-.09	-2.353*
Quantity → Consumer Behaviour	.79	20.49**	Quantity → Consumer Behaviour	.78	19.20**
			Prior Knowledge → Consumer Behaviour	.05	1.23
Variables under examination: Prior knowledge (Preference 1) + Emotions (Preference 2)					
Model 1: Original Model (R <sup>2</sup> = .669)			Model 2: Rival Model (Preferences: composite measure) (R <sup>2</sup> = .686)		
	$\beta$	t-value		$\beta$	t-value
Price → Consumer Behaviour	.06	1.56	Price → Consumer Behaviour	.04	.89
Resources (income) → Consumer Behaviour	-.10	-2.54*	Resources (income) → Consumer Behaviour	-.07	-1,927
Quantity → Consumer Behaviour	.79	20.49**	Quantity → Consumer Behaviour	.76	19,117**
			Prior Knowledge → Consumer Behaviour	.04	.952
			Emotions → Consumer Behaviour	.13	3,41**
Variables under examination: Prior knowledge (Preference 1) + Emotions (Preference 2) + Word of Mouth (Preference 3)					
Model 1: Original Model (R <sup>2</sup> = .669)			Model 2: Rival Model (Preferences: composite measure) (R <sup>2</sup> = .678)		
	$\beta$	t-value		$\beta$	t-value
Price → Consumer Behaviour	.06	1.56	Price → Consumer Behaviour	.04	.919

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Resources (income) → Consumer Behaviour	-.10	-2.54*
Quantity → Consumer Behaviour	.79	20.49**

Resources (income) → Consumer Behaviour	-.07	-1.96
Quantity → Consumer Behaviour	.75	18.213**
Prior Knowledge → Consumer Behaviour	.02	.48
Emotions → Consumer Behaviour	.11	2.85**
Word-of-Mouth → Consumer Behaviour	.04	.87

Variables under examination: Prior knowledge (Preference 1) + Emotions (Preference 2) + Word of Mouth (Preference 3) + Personal Factors (Preference 4)					
Model 1: Original Model (R <sup>2</sup> = .669)			Model 2: Rival Model (Preferences: composite measure) (R <sup>2</sup> = .681)		
	β	t-value		β	t-value
Price → Consumer Behaviour	.06	1.56	Price → Consumer Behaviour	.04	.872
Resources (income) → Consumer Behaviour	-.10	-2.54*	Resources (income) → Consumer Behaviour	-.07	-1.88
Quantity → Consumer Behaviour	.79	20.49**	Quantity → Consumer Behaviour	.75	17.83**
			Prior Knowledge → Consumer Behaviour	.02	.45
			Emotions → Consumer Behaviour	.11	2.61**
			Word-of-Mouth → Consumer Behaviour	.05	.97
			Personal Factors → Consumer Behaviour	-.00	-.04

Variables under examination: Prior knowledge (Preference 1) + Emotions (Preference 2) + Word of Mouth (Preference 3) + Personal Factors (Preference 4) + Social Environment (Preference 5)					
Model 1: Original Model (R <sup>2</sup> = .669)			Model 2: Rival Model (Preferences: composite measure) (R <sup>2</sup> = .699)		
	β	t-value		β	t-value
Price → Consumer Behaviour	.06	1.56	Price → Consumer Behaviour	.05	1.11
Resources (income) → Consumer Behaviour	-.10	-2.54*	Resources (income) → Consumer Behaviour	-.06	-1.56
Quantity → Consumer Behaviour	.79	20.49**	Quantity → Consumer Behaviour	.73	17.05**

Prior Knowledge → Consumer Behaviour	.03	.82
Emotions → Consumer Behaviour	.07	1.7
Word-of-Mouth → Consumer Behaviour	.04	.96
Personal Factors → Consumer Behaviour	-.01	-.16
Social Environment → Consumer Behaviour	.09	1.90

Notes:  $\beta$  = standardized regression coefficients

\*  $p < 0.05$  \*\*  $p < 0.01$

Model 1: Original Model ( $R^2 = .669$ )			Model 2: Rival Model (Preferences: composite measure) ( $R^2 = .729$ )		
	$\beta$	t-value		$\beta$	t-value
Price → Consumer Behaviour	.06	1.56	Price → Consumer Behaviour	.02	.60
Resources (income) → Consumer Behaviour	-.10	-2.54*	Resources (income) → Consumer Behaviour	-.03	-.91
Quantity → Consumer Behaviour	.79	20.49**	Quantity → Consumer Behaviour	.67	17.15**
			Preferences → Consumer Behaviour	.29	7.54**

#### 5.4.3. Effects of Control Variables

In order to get a better understanding of the main findings and the conditions that may influence their strength, the variables of gender, age, income, nationality and educational level (key demographics), as well as, the utility the participants perceive are controlled. Different groups are formulated on the basis of the aforementioned control variables and then the results of the main constructs of the study (Preferences, Consumer Behaviour and their predictors) are compared between the groups. In particular, based on the number of responses of every category and the potential to produce meaningful and interesting results, the participants are grouped into the following categories. The aim was to produce balanced (each group has a critical number of participants) and unrelated groups.

- Gender: men vs. women (two groups)
- Utility: customers who perceive low utility from the product use (mean  $\leq 4.81$ ) vs. customers who perceive high utility from the product use (mean  $> 4.81$ ) (two groups). 4.81 emerged as the average mean of the Utility construct (direct measurement), and so it splits the sample into two balanced groups of participants who perceive low and high Utility from the product use.
- Age: 'young', up to 34 years old vs. 'old', over 35 years old (two groups).
- Income (personal): participants with income £0,000 - £1,500 vs. participants with income £1,501 + (two groups).
- Nationality: UK vs. EU and vs. International participants (three groups).
- Educational level: High school, College credit, Technical training vs. Bachelor vs. Post Graduate (Master/Doctorate) (three groups).

Then, it was assessed whether the results of the study differ according to these groups. These variables were controlled by means of Independent Samples t-Test. Also, as an additional, more stringent test for this assessment, regression analysis for each group was performed and the results were compared. The detailed results are presented in the sections that follow.

#### 5.4.3.1. T-Test Analysis

The Independent Samples t-test (or independent t-test, for short) compares the means of two independent groups on the same continuous, dependent variable in order to determine whether there is statistical evidence that the associated population means are significantly different. For efficiency reasons, the statistical significant differences in means are presented in color (grey shade).

Starting with the **Gender**, the results presented in Table 28 show that, to a large extent, there is no significant difference in mean of Preferences and Consumer Behaviour aspects between men and women, as  $p > .05$  in most of the means comparisons. Although the results indicate that is a significant difference ( $p < .05$ ) in the means of Prior Knowledge, Word-of-Mouth (antecedents of Preferences), Quantity (antecedent of Consumer Behaviour) and Consumer Behaviour (measurement scale) between men and women, the level of statistical significance is rather moderate (in most of the aforementioned mean comparisons, as shown in Table 28, 'p' is close to the threshold of 0.05). Therefore, it is concluded that there is not a significant difference in the means of the main variables between men and women. For example, men or women do not exhibit higher levels of Consumer Behaviour comparing to the other sex. Hence, the gender is not a factor that, overall, differentiates the results. The significant differentiation the results have shown is rather limited and moderate.

Table 28: T-Test analysis for groups comparison: Gender

<b>Constructs</b>	<b>Men</b>	<b>Women</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>
<b>Antecedents of Preferences (composite measures)</b>					
Prior Knowledge	5.43	4.96	2.90	270	.004
Emotions	5.07	4.92	.86	271	.389
Word-of-Mouth	4.93	4.41	2.88	267	.004
Personal Factors	5.53	5.45	.51	265	.612
Social Environment	4.49	4.49	-.01	269	.990
<b>Antecedents of Consumer Behaviour (composite measures)</b>					
Price	5.06	4.86	1.32	271	.188
Resources (income)	5.19	4.86	1.70	269	.091
Quantity	4.75	4.31	2.11	258	.036
Preferences	5.55	5.41	1.06	269	.290
<b>Other Focal Constructs</b>					
Consumer Behaviour	4.83	4.46	2.14	269	.033
Utility (direct measurement)	4.93	4.69	1.60	269	.112

Note: Reported values are average means

Opposed to the findings about the gender presented above, the findings in Table 29 show that there is a significant difference in the means of the main variables between the consumers who perceive low Utility (mean  $\leq 4.81$ ) and the consumers who perceive high Utility (mean  $> 4.81$ ) from the use of the chosen target ( $p < .001$ ). Specifically, the results suggest that the mean of the antecedents of Preferences, the antecedents of Consumer Behaviour and the direct measurement scales of Consumer Behaviour, for the high utility group, is significantly greater than the mean of the first group, low Utility. This finding is explained as consumers who perceive high level of utility from product use are very likely to have strong and favorable preferences towards the product target and demonstrate

favorable behaviour towards future purchases. This finding also provides support to a key message of the study highlighting the role of Utility as an important driver of consumer behaviour and suggests that the achievement of high levels of utility should be a priority for those suppliers who are trying, or even struggling, to improve the favorable consumer behaviours of their target customers.

**Table 29: T-Test analysis for groups comparison: Utility**

<b>Constructs</b>	<b>Low Utility (mean ≤ 4.81)</b>	<b>High Utility (mean &gt; 4.81)</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>
<b>Antecedents of Preferences (composite measures)</b>					
Prior Knowledge	4.78	5.50	-4.53	271	.000
Emotions	4.19	5.62	-9.80	272	.000
Word-Of-Mouth	4.06	5.15	-6.37	267	.000
Personal Factors	4.89	5.95	-8.56	266	.000
Social Environment	3.63	5.17	-9.58	270	.000
<b>Antecedents of Consumer Behaviour (composite measures)</b>					
Price	4.60	5.24	-4.48	272	.000
Resources (income)	5.34	4.77	2.92	270	.000
Quantity	3.84	5.10	-6.33	259	.000
Preferences	4.87	5.95	-9.69	270	.000
<b>Other Focal Constructs</b>					
Consumer Behaviour	3.84	5.26	-9.32	270	.000

Note: Reported values are average means

Coming to the age, the results presented in Table 30 show that although, for the most part, there is no significant difference in means between 'young' consumers (up to 34 years old) and 'old' consumers (over 35 years old), there is a strong and significant difference of mean of the Prior Knowledge, the Resources (income) and Utility between 'young' and 'old' consumers ( $p < .001$ ). Specifically, the mean of Prior Knowledge for the first group



('young') is significantly greater than the mean for the second group, ('old') (mean 'young' = 5.47 vs mean 'old' = 4.84,  $p < .001$ ). This is probably explained by the fact that younger consumers, due to their age, are likely to have more vivid and recent experiences from a previous use of the product and this parameter (the relatively small-time gap between the prior experience and the current one), is likely to affect their Preferences greater than 'old' consumers. Consistent to the previous comment, 'young' consumers exhibit a higher mean of Utility comparing to the 'old' consumers (mean 'young' = 5.04 vs mean 'old' = 4.53,  $p < .001$ ). This is possibly explained due to the fact that more recent purchase and consumption, a typical case of 'young' consumers, can lead to increased levels of happiness and even 'enthusiasm' about a product target, comparing to more chronologically distant purchases, a typical case with 'old' consumers whose happiness and 'enthusiasm' about a product target might have started to fade out across the years. On the other hand, the results show that the 'old' consumers have significantly higher Resources (income) comparing to the 'young' ones (mean 'old' = 5.64 vs mean 'young' = 4.49,  $p < .001$ ). This is expected as 'young' consumers are students or work at entry/mid-level positions, and hence, they haven't yet achieved high personal salary comparing to 'old' consumers who have had the opportunity to pursue their career for more years.

Table 30: T-Test analysis for groups comparison: Age

<b>Constructs</b>	<b>up to 34 years old</b>	<b>over 35 years old</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>
<b>Antecedents of Preferences (composite measures)</b>					
Prior Knowledge	5.47	4.84	3.94	271	.000
Emotions	5.19	4.75	2.67	272	.008
Word-of-Mouth	4.77	4.54	1.23	267	.221
Personal Factors	5.46	5.51	-.30	266	.762
Social Environment	4.61	4.35	1.37	270	.171
<b>Antecedents of Consumer Behaviour (composite measures)</b>					

Price	4.89	5.04	-1.05	272	.293
Resources (income)	4.49	5.64	-6.27	270	.000
Quantity	4.52	4.54	-.11	259	.911
Preferences	5.57	5.35	1.70	270	.091
Other Focal Constructs					
Consumer Behaviour	4.69	4.57	.67	270	.502
Utility (direct measurement)	5.04	4.53	3.49	270	.001

Note: Reported values are average means

Coming to the results about Personal Income, the results presented in Table 31 show a significant difference in mean of Resources (income) between consumers of £0,000 - £1,500 personal monthly income and consumers of £1,501+ monthly income. Specifically, the mean of Resources (income) for the second group (£1,501+) is significantly greater than the mean for the first group, (£0,000-£1,500) (mean £1,501 + = 5.69 vs. mean £0,000 - £1,500 = 4.27,  $p < .001$ ). This is an expected finding, as it is logical to assume that a high personal income enables consumers to have a sufficient disposable income that can be used to purchase a target. In all the other variables, the results found no significant difference in mean between consumers of £0,000 - £1,500 personal monthly income and consumers of £1,501+ monthly income. This is in line with previous regression results (Table 26), where Resources (income) was not found to have a significant impact on Consumer Behaviour, and indicates that favorable consumer behaviour towards a product target is not the direct outcome of the disposal income. Apparently, a high personal income enables purchasing a product, but a key condition, as also the results of the study has shown (Table 26), is the favorable attitude as this is reflected on Preferences. The results of the t-test therefore support that none will be a product, regardless of how high income they might have, if the product fails to generate positive attitude and favorable feelings after its purchase.

Table 31: T-Test analysis for groups comparison: Personal Income

<b>Constructs</b>	<b>£0- £1,500</b>	<b>£1,501 +</b>	<b>t</b>	<b>df</b>	<b>Sig.</b>
<b>Antecedents of Preferences (composite measures)</b>					
Prior Knowledge	5.22	5.11	.65	257	.515
Emotions	5.09	4.88	1.20	257	.231
Word-Of-Mouth	4.57	4.73	-.86	253	.391
Personal Factors	5.39	5.60	-1.48	251	.139
Social Environment	4.62	4.35	1.44	255	.150
<b>Antecedents of Consumer Behaviour (composite measures)</b>					
Price	4.83	5.09	-1.72	257	.086
Resources (income)	4.27	5.69	-7.71	255	.000
Quantity	4.41	4.60	-.86	245	.390
Preferences	5.50	5.48	.12	255	.900
<b>Other Focal Constructs</b>					
Consumer Behaviour	4.61	4.65	-.21	255	.835
Utility (direct measurement)	4.85	4.74	.69	255	.489

Note: Reported values are average means

#### 5.4.3.2. One-Way Anova Analysis

Coming to the examination of nationality and education as control variables, the one-way Anova analysis was performed. The one-way analysis of variance (ANOVA) is used to determine whether there are any statistically significant differences between the means of three or more independent (unrelated) groups. Since the sample was grouped into three nationality groups (UK, EU and International) and three educational level groups (High

school, College credit, Technical training vs. Bachelor vs. Post Graduate - Master/Doctorate), the use of the one-way Anova test was deemed appropriate.

The results shown in Table 32 reveal that there is a statistically significant difference among the three **nationality** groups in the constructs of Personal Factors ( $F=15.040$ ,  $p < .001$ ), Social Environment ( $F=4.176$ ,  $p < .05$ ), and Utility (direct measurement) ( $F=4.176$ ,  $p < .05$ ). A possible explanation of these findings is that each nationality reflects on different and unique cultural characteristics and economic situation of different countries – e.g. some EU countries are currently facing economic recession, which also reflect on the consumer behaviour (the willingness to buy and the reasons for buying – necessity or not). For example, consumers coming from certain countries might emphasise more on the image or social approval when decide which products to purchase, and hence differences in Personal Factors and the role of Social Environment can be explained. Similarly, the level of happiness or satisfaction as this is reflected on the level of Utility may also be associated with cultural values. In some countries, consumer tend to buy only if/when a need occurs, while in western, more developed economies, consumers often proceed to impulse purchases and buy products that they do not really need. This possibly explains the mean difference in the Utility among nationality groups. In all other constructs, no significant difference among nationality groups was found, which indicates the relatively high homogeneity of consumers globally nowadays.

Table 32: Anova analysis for groups comparison: Nationality

Constructs	UK	EU	International	F	df	Sig.
Antecedents of Preferences (composite measures)						
Prior Knowledge	5.13	5.12	5.37	.805	2	.448
Emotions	4.93	4.79	5.32	2.52	2	.082
Word-of-Mouth	4.59	4.50	5.01	2.189	2	.114
Personal Factors	5.74	4.83	5.48	15.040	2	.000

Social Environment	4.60	3.99	4.68	4.176	2	.016
Antecedents of Consumer Behaviour (composite measures)						
Price	5.05	4.82	4.88	.992	2	.372
Resources (income)	5.04	5.14	4.84	.562	2	.571
Quantity	4.53	4.43	4.61	.168	2	.846
Preferences	5.54	5.16	5.61	3.573	2	.029
Other Focal Constructs						
Consumer Behaviour	4.63	4.53	4.76	.399	2	.671
Utility (direct measurement)	4.92	4.34	4.98	5.752	2	.004

Note: Reported values are average

means

Finally, with regards to the **educational level** of the participants, the table 33 below indicates that there is no statistically significant difference in all constructs among the group that has High school, College credit, Technical training, the group that has Bachelor degree and the group that has post graduate studies (Master or Doctorate) ( $p > .05$ ). The only exception is the construct of Consumer Behaviour where the results found a statistically significant difference ( $F=4.262$ ,  $p < .05$ ) among the group that has High school, College credit, and Technical training (mean = 4.27), the group that has Bachelor degree (mean = 4.64) and the group that possess post graduate studies (Master or Doctorate) (mean = 4.93). This is possibly explained by the fact that more educated consumers are likely to make more sensible and well-informed purchase decisions, as they might have the opportunity and knowledge to search at different sources (e.g. web comparison sites, online retailers, etc.). On the whole, the results indicate that are not differentiated according to the educational level of the participants which also provides additional evidence of the applicability and generalizability of the conceptualization to the consumer base.

Table 33: Anova Analysis for Groups Comparison: Education

<b>Constructs</b>	<b>High school, College credit, Technical training</b>	<b>Bachelor</b>	<b>Post Graduate (Master/Doctorate)</b>	<b>F</b>	<b>df</b>	<b>Sig.</b>
<b>Antecedents of Preferences (composite measures)</b>						
Prior Knowledge	5.03	5.07	5.47	2755	2	.065
Emotions	4.86	4.92	5.20	1.403	2	.248
Word-of-Mouth	4.40	4.76	4.77	1.514	2	.222
Personal Factors	5.47	5.45	5.54	.173	2	.841
Social Environment	4.45	4.47	4.56	.290	2	.883
<b>Antecedents of Consumer Behaviour (composite measures)</b>						
Price	4.94	4.92	5.04	.256	2	.775
Resources (income)	4.85	4.99	5.19	.883	2	.415
Quantity	4.15	4.54	4.81	2.846	2	.060
Preferences	5.33	5.48	5.58	1.119	2	.328
<b>Other Focal Constructs</b>						
Consumer Behaviour	4.27	4.64	4.93	4.262	2	.015
Utility (direct measurement)	4.52	4.91	4.92	2.646	2	.073

Note: Reported values are average

means

#### 5.4.3.3. Regression Analysis Results

In next, in order to conduct a stringent test of the control variables, and following recommendations from the sensitivity analysis (Briggs and Sculpher, 1995) and

moderated regression analysis (Arnold, 1982), the competing regression models were tested, based on the groups of participants emerged from the control variables. Then, the results were compared (standardized regression coefficients and significance coefficients) in order to evaluate whether the results differentiate according to the control variables.

Starting with the **Gender**, the results presented in Table 34 show that for the variables of Word-of-Mouth, Personal Factors and Preferences the differences in the regression coefficients between men and women are moderate, and hence, it cannot affirmatively be concluded that these variables have a stronger influence on Preferences and Consumer Behaviour when the group of men is assessed, comparing to the group of women. Interestingly though, the impact of Quantity on Consumer Behaviour is found to be significantly stronger in the group of men ( $\beta = .72, p < .01$ ) comparing to the group of women ( $\beta = .61, p < .01$ ). This is probably explained by more general purchasing patterns characterizing men and women. For example, men often are not keen to a variety or a large range of different products, opposed to women; they tend to re-purchase more items of the same product provided they have been satisfied with this. Hence, the role of Quantity in the influence of Consumer Behaviour may be stronger in the case of men. The results in Table 34 also show that the impact of Emotions and Social Environment on Preferences is significant in the group of women but not in the group of men. This can probably be due to the smaller sample size each regression analysis is based upon, as the regression coefficients are sensitive to the sample size. Finally, Prior Knowledge, Price and Resources (income) are found to be insignificant to Preferences and Consumer Behaviour, in both men and women groups. Overall, the results are in line with the t-test results about gender and indicate that, for the most part, the results of the study are not significantly differentiated according to the gender of the participants.

Table 34: Comparison of Regression Results – Control Variable: Gender

Dependent Variable: Preferences					
Model 1: Men			Model 2: Women		
	$\beta$	t-value		$\beta$	t-value
Prior Knowledge $\longrightarrow$ Preferences	.16	1.88	Prior Knowledge $\longrightarrow$ Preferences	.13	1.80
Emotion $\longrightarrow$ Preferences	.02	.22	Emotion $\longrightarrow$ Preferences	.24	2.92**
Word of Mouth $\longrightarrow$ Preferences	.26	2.72**	Word of Mouth $\longrightarrow$ Preferences	.25	2.98**
Personal Factors $\longrightarrow$ Preferences	.22	2.25*	Personal Factors $\longrightarrow$ Preferences	.19	2.37**
Social Environment $\longrightarrow$ Preferences	.12	1.28	Social Environment $\longrightarrow$ Preferences	.17	2.12*
Dependent Variable: Consumer Behaviour					
Model 1: Men			Model 2: Women		
	$\beta$	t-value		$\beta$	t-value
Price $\longrightarrow$ Consumer Behaviour	-.01	-.16	Price $\longrightarrow$ Consumer Behaviour	.05	.926
Resources (income) $\longrightarrow$ Consumer Behaviour	-.00	-.06	Resources (income) $\longrightarrow$ Consumer Behaviour	-.08	-1.47
Quantity $\longrightarrow$ Consumer Behaviour	.72	14.10**	Quantity $\longrightarrow$ Consumer Behaviour	.61	9.99**
Preferences $\longrightarrow$ Consumer Behaviour	.30	6.48**	Preferences $\longrightarrow$ Consumer Behaviour	.27	4.18**

Notes:  $\beta$  = standardized regression coefficients\*  $p < 0.05$  \*\*  $p < 0.01$



Coming to the **Utility** (direct measurement), the results are shown in Table 35. Two findings are of particular interest. First, the impact of Word-of-Mouth on Preferences is significant stronger in the group of Low Utility ( $\beta = .39, p < .01$ ) comparing to the group of High Utility ( $\beta = .39, p < .01$ ). This indicates that, as marketing theory suggests, customers tend to share their negative experiences to more people than they do with their positive experiences (Kotler and Armstrong, 2018). Considering therefore that low levels of Utility are typically associated with a rather negative experience from the product use, this finding is not surprising.

Second, the impact of Preferences on Consumer Behaviour is significantly stronger in the group of High Utility ( $\beta = .35, p < .01$ ) comparing to the group of Low Utility ( $\beta = .15, p < .01$ ). This indicates that as the perceived Utility increases, it is likely that favourable Preferences will lead to concrete behaviours and consumers feel more confident to proceed with a purchase. From the results shown in Table 35, the impact of the Prior Knowledge, Emotions, Personal Factors and Social Environment on Preferences and the impact of Price and Resources (income) on Consumer Behaviour was found to be non-significant in both Low Utility and High Utility groups. Finally, the difference of the impact of Quantity on Consumer Behaviour between the groups of Low Utility and High Utility is rather moderate, and therefore, the conclusion that the level of Utility is a significant differentiator of these findings cannot be reached.

Table 35: Comparison of Regression Results – Control Variable: Utility (direct measurement)

Dependent Variable: Preferences					
Model 1: Low Utility (mean $\leq 4.81$ )			Model 2: High Utility (mean $> 4.81$ )		
	$\beta$	t-value		$\beta$	t-value
Prior Knowledge $\longrightarrow$ Preferences	-.02	-.19	Prior Knowledge $\longrightarrow$ Preferences	.22	2.78**
Emotion $\longrightarrow$ Preferences	.07	.74	Emotion $\longrightarrow$ Preferences	.05	.68
Word of Mouth $\longrightarrow$ Preferences	.39	3.35**	Word of Mouth $\longrightarrow$ Preferences	.23	2.74**
Personal Factors $\longrightarrow$ Preferences	.17	1.80	Personal Factors $\longrightarrow$ Preferences	.14	1.61
Social Environment $\longrightarrow$ Preferences	.02	.22	Social Environment $\longrightarrow$ Preferences	.13	1.56
Dependent Variable: Consumer Behaviour					
Model 1: Low Utility (mean $\leq 4.81$ )			Model 2: High Utility (mean $> 4.81$ )		
	$\beta$	t-value		$\beta$	t-value
Price $\longrightarrow$ Consumer Behaviour	.03	.40	Price $\longrightarrow$ Consumer Behaviour	.01	.258
Resources (income) $\longrightarrow$ Consumer Behaviour	-.04	-.57	Resources (income) $\longrightarrow$ Consumer Behaviour	.01	.26
Quantity $\longrightarrow$ Consumer Behaviour	.75	12.41**	Quantity $\longrightarrow$ Consumer Behaviour	.62	10.83**
Preferences $\longrightarrow$ Consumer Behaviour	.15	2.44**	Preferences $\longrightarrow$ Consumer Behaviour	.35	6.38**

Notes:  $\beta$  = standardized regression coefficients\*  $p < 0.05$  \*\*  $p < 0.01$

Moving on to the **Age**, the results presented in Table 36 found no significant impact of Price and Resources (income) on Consumer Behaviour for both age groups ('young' – up to 34 years old and 'old' - over 35 years old). The results also reveal that the impact of Prior Knowledge, Emotions and Social Environment on Preferences is significant in the first age group but not in the second one. As also discussed in previous paragraphs, this is possibly due to the sensitivity of the results to the sample size meaning that as the sample size of each regression analysis is significantly smaller than the overall dataset, the results are likely to be affected. The results show difference in the impact of Personal Factors on Preferences and the impact of Quantity on Consumer Behaviour between 'young' and 'old' consumers. However, this difference is moderate and it does not indicate that age is a significant differentiator of these variables.

Interestingly, the impact of Word-of-Mouth on Preferences is significantly stronger in the group of 'old' consumers ( $\beta = .28, p < .01$ ) comparing to the group of 'young' consumers ( $\beta = .19, p < .05$ ). This indicates that 'old' consumers are often more risk averse than 'young' consumers and seek more information before they formulate Preference towards a product target. The use of Word-of-Mouth is particularly important in this respect, and can possibly explain this finding. Consistent to the previous finding, the impact of Preferences on Consumer Behaviour is found to be significantly stronger in the group of 'young' ( $\beta = .33, p < .01$ ) comparing to the group of 'old' consumers ( $\beta = .22, p < .01$ ), which is probably explained by the fact that 'young' consumers are impulsive and act as consumers without forethought. It is likely that if/when they have formulated a favorable Preference towards a target, to proceed to its purchase soon after without an excessive decision-making process. Hence, the impact of Preferences on Consumer Behaviour might be stronger in the group of 'young' comparing to the 'old', who might want to think more or gather more information before they decide to buy.

Table 36: Comparison of Regression Results – Control Variable: Age

Dependent Variable: Preferences					
Model 1: up to 34 years old			Model 2: over 35 years old		
	$\beta$	t-value		$\beta$	t-value
Prior Knowledge $\longrightarrow$ Preferences	.09	1.20	Prior Knowledge $\longrightarrow$ Preferences	.18	2.12*
Emotion $\longrightarrow$ Preferences	.10	1.30	Emotion $\longrightarrow$ Preferences	.19	2.06*
Word of Mouth $\longrightarrow$ Preferences	.19	2.04*	Word of Mouth $\longrightarrow$ Preferences	.28	3.02**
Personal Factors $\longrightarrow$ Preferences	.28	2.59*	Personal Factors $\longrightarrow$ Preferences	.23	2.43*
Social Environment $\longrightarrow$ Preferences	.23	2.71**	Social Environment $\longrightarrow$ Preferences	.02	.28
Dependent Variable: Consumer Behaviour					
Model 1: up to 34 years old			Model 2: over 35 years old		
	$\beta$	t-value		$\beta$	t-value
Price $\longrightarrow$ Consumer Behaviour	.03	.60	Price $\longrightarrow$ Consumer Behaviour	.04	.58
Resources (income) $\longrightarrow$ Consumer Behaviour	-.02	-.32	Resources (income) $\longrightarrow$ Consumer Behaviour	-.06	-1.22
Quantity $\longrightarrow$ Consumer Behaviour	.64	12.30**	Quantity $\longrightarrow$ Consumer Behaviour	.71	11.98**
Preferences $\longrightarrow$ Consumer Behaviour	.33	6.25**	Preferences $\longrightarrow$ Consumer Behaviour	.22	3.66**

Notes:  $\beta$  = standardized regression coefficients\*  $p < 0.05$  \*\*  $p < 0.01$

With regards to the **Personal Income**, the results presented in Table 37 found that the impact of Preferences on Consumer Behaviour is stronger in the group of consumers with low (£0,000 - £1,500) income ( $\beta = .33, p < .01$ ) comparing to the group of consumers with high (£1,501+) income ( $\beta = .23, p < .01$ ). This is possibly explained by the fact that people of higher income are often people relatively older, with family or work commitments. The favorable preference towards a product target is important but, alone, not enough so that consumers will proceed to the purchase. Other factors (e.g. family priorities, work needs) may also be considered before deciding to purchase the (preferred) product target.

The results in Table 37 show significant impact of Quantity on Consumer Behaviour, but no difference in the strength of impact between low and high-income groups, so personal income appear not to differentiate the results. Similarly, although there is difference in the impact of Word-of-Mouth on Preferences between low and high-income groups, the difference is moderate and the results indicate that personal income is not a significant differentiator of the results of these variables. In all other cases, the results found no significant impact of the independent variables on the dependent variables of Preferences and Consumer Behaviour in both, low and high-income groups. Overall, and consistent to the results of t-test shown in Table 31, the findings of the regression analysis indicate that the result of the hypothesized links of the study are not differentiated according to the consumers' personal income.

Table 37: Comparison of Regression Results – Control Variable: Personal Income

Dependent Variable: Preferences					
Model 1: 0 - £1500			Model 2: £1501 +		
	$\beta$	t-value		$\beta$	t-value
Prior Knowledge $\longrightarrow$ Preferences	.07	.89	Prior Knowledge $\longrightarrow$ Preferences	.29	3.45**
Emotion $\longrightarrow$ Preferences	.14	1.52	Emotion $\longrightarrow$ Preferences	.09	1.16
Word of Mouth $\longrightarrow$ Preferences	.28	2.87**	Word of Mouth $\longrightarrow$ Preferences	.22	2.49*
Personal Factors $\longrightarrow$ Preferences	.16	1.55	Personal Factors $\longrightarrow$ Preferences	.15	1.89
Social Environment $\longrightarrow$ Preferences	.18	1.72	Social Environment $\longrightarrow$ Preferences	.20	2.61*
Dependent Variable: Consumer Behaviour					
Model 1: 0 - £1500			Model 2: £1501 +		
	$\beta$	t-value		$\beta$	t-value
Price $\longrightarrow$ Consumer Behaviour	.07	1.36	Price $\longrightarrow$ Consumer Behaviour	-.04	-.72
Resources (income) $\longrightarrow$ Consumer Behaviour	-.04	-.80	Resources (income) $\longrightarrow$ Consumer Behaviour	.04	.79
Quantity $\longrightarrow$ Consumer Behaviour	.66	12.75**	Quantity $\longrightarrow$ Consumer Behaviour	.66	10.16**
Preferences $\longrightarrow$ Consumer Behaviour	.33	6.25**	Preferences $\longrightarrow$ Consumer Behaviour	.23	3.66**

Notes:  $\beta$  = standardized regression coefficients\*  $p < 0.05$  \*\*  $p < 0.01$

With regard to the role of **nationality**, the results shown in Table 38 report that for the most hypothesized links, no significant effects in all three nationality groups (UK, EU and international) are found, and hence, no significant difference among the three nationality groups can be assessed. This finding can be due to sample size limitations, as the number of cases for each set of regressions (UK, EU and international) is much smaller than the total number of cases. In addition, the finding provides evidence of the generalizability of the findings and indicates that the predictors of Preferences and Consumer Behaviour are not subject to the nationality of the participants. Similarly, the impact of Quantity on Consumer Behaviour is significant in all three nationality groups however the differences are moderate revealing the high homogeneity of consumers globally nowadays. Interestingly, the impact of Preferences on Consumer Behaviour is significantly stronger in the international group ( $\beta = .41, p < .01$ ) comparing to the UK ( $\beta = .25, p < .01$ ) and EU ( $\beta = .21, p < .05$ ). This is possibly due to the fact that in some countries outside of UK/EU, people are less familiar with different sources of information about products (e.g. comparison websites) and therefore, rely mostly on their initial preferences towards a product target in order to proceed to the purchase decisions. However, for the most part, as the results in Table 38 show, consumers are rather homogeneous nowadays, and nationality has not emerged as a significant differentiator of the results of the study.

Table 38: Comparison of Regression Results – Control Variable: Nationality

Dependent Variable: Preferences			
Model 1: UK			
		$\beta$	t-value
Prior Knowledge	→ Preferences	.22	3.14**
Emotion	→ Preferences	.18	2.49*
Word of Mouth	→ Preferences	.29	3.66**
Personal Factors	→ Preferences	.18	2.26*
Social Environment	→ Preferences	.11	1.51
Model 2: EU			
		$\beta$	t-value
Prior Knowledge	→ Preferences	.13	.844
Emotion	→ Preferences	-.13	-.841
Word of Mouth	→ Preferences	.27	1.66
Personal Factors	→ Preferences	.14	.92
Social Environment	→ Preferences	.34	2.16*
Model 3: International			
		$\beta$	t-value
Prior Knowledge	→ Preferences	.04	.34
Emotion	→ Preferences	.31	1.97
Word of Mouth	→ Preferences	.15	.96
Personal Factors	→ Preferences	.20	1.36
Social Environment	→ Preferences	.04	.31
Dependent Variable: Consumer Behaviour			
Model 1: UK			
		$\beta$	t-value
Price	→ Consumer Behaviour	.04	.80
Resources (income)	→ Consumer Behaviour	-.08	-1.88
Quantity	→ Consumer Behaviour	.70	13.89**
Preferences	→ Consumer Behaviour	.25	5.14**
Model 2: EU			
		$\beta$	t-value
Price	→ Consumer Behaviour	.02	.19
Resources (income)	→ Consumer Behaviour	.09	.95
Quantity	→ Consumer Behaviour	.73	8.36**
Preferences	→ Consumer Behaviour	.21	2.62*



Model 3: International		
	$\beta$	t-value
Price $\longrightarrow$ Consumer Behaviour	-.01	-.10
Resources (income) $\longrightarrow$ Consumer Behaviour	-.08	-.09
Quantity $\longrightarrow$ Consumer Behaviour	.57	6.81**
Preferences $\longrightarrow$ Consumer Behaviour	.41	4.69**
Notes: $\beta$ = standardized regression coefficients		
* $p < 0.05$ ** $p < 0.01$		

Finally, coming to the **educational level**, the results presented in Table 39 show that for the most cases there are no significant effects on the dependent variables of Preferences and Consumer Behaviour in all three educational level groups (1. High school, some college credit, no degree, trade/technical/vocational training, 2. Bachelor's degree, 3. Post Graduate Degree). It is also shown that the impact of Quantity on Consumer Behaviour is significant in all three educational groups however the differences among the groups are moderate. Similarly, the impact of Preferences on Consumer Behaviour is significant in the bachelor and post graduate educational groups, though not in the high school, some college credit, no degree, trade/technical/vocational training group, but again, the difference between the groups is moderate. Therefore, and in line with the t-test results around the role of the educational level in the differentiation of the results of the study, the educational level is not a significant differentiator of the predictors of Preferences and Consumer Behaviour.

Table 39: Comparison of Regression Results – Control Variable: Education			
Dependent Variable: Preferences			
Model 1: High school, Some college credit, no degree, Trade/technical/vocational training			
		$\beta$	t-value
Prior Knowledge	→ Preferences	.28	2.31*
Emotion	→ Preferences	.23	1.92
Word of Mouth	→ Preferences	.11	.85
Personal Factors	→ Preferences	.20	1.52
Social Environment	→ Preferences	.07	.53
Model 2: Bachelor's degree (University/College)			
		$\beta$	t-value
Prior Knowledge	→ Preferences	.10	1.22
Emotion	→ Preferences	-.01	-.11
Word of Mouth	→ Preferences	.26	2.55*
Personal Factors	→ Preferences	.26	2.48*
Social Environment	→ Preferences	.23	2.28*
Model 3: Post Graduate Degree (Master/ Doctorate)			
		$\beta$	t-value
Prior Knowledge	→ Preferences	.06	.61
Emotion	→ Preferences	.16	1.69
Word of Mouth	→ Preferences	.38	3.37**
Personal Factors	→ Preferences	.18	1.81
Social Environment	→ Preferences	.16	1.72
Dependent Variable: Consumer Behaviour			
Model 1: High school, Some college credit, no degree, Trade/technical/vocational training			
		$\beta$	t-value
Price	→ Consumer Behaviour	.05	.69
Resources (income)	→ Consumer Behaviour	-.16	-2.50*
Quantity	→ Consumer Behaviour	.73	9.64**
Preferences	→ Consumer Behaviour	.13	1.69
Model 2: Bachelor's degree (University/College)			
		$\beta$	t-value
Price	→ Consumer Behaviour	-.05	-.89
Resources (income)	→ Consumer Behaviour	.02	.39
Quantity	→ Consumer Behaviour	.69	11.84**
Preferences	→ Consumer Behaviour	.31	5.24**

Model 3: Post Graduate Degree (Master/ Doctorate)		
	$\beta$	t-value
Price $\longrightarrow$ Consumer Behaviour	.13	1.60
Resources (income) $\longrightarrow$ Consumer Behaviour	-.05	-.61
Quantity $\longrightarrow$ Consumer Behaviour	.56	7.62**
Preferences $\longrightarrow$ Consumer Behaviour	.38	5.35**
Notes: $\beta$ = standardized regression coefficients		
* $p < 0.05$ ** $p < 0.01$		

**CHAPTER 6. DISCUSSION AND IMPLICATIONS.**

The major goal of this study is to investigate the role of Price, Quantity and Resources (income) on Consumer Behaviour in the context of consumer electronics, following recommendations from the Consumer Theory, as has been perceived in Economics. Moreover, in order to underpin the comprehension of the integration of insights from the Consumer Research field into the Consumer Theory, the role of Preferences was also examined as an additional antecedent. To achieve the study's objectives a number of hypotheses were developed and examined. Table 40 summarizes the results of the study in relation to the specific hypotheses that were investigated.

Table 40: Summary of hypotheses

Research Hypotheses	Results
H1: Prior Knowledge towards a product target positively affects consumer preferences.	<b>Confirmed</b>
H2: Emotions towards a product target positively affects consumer preferences.	<b>Confirmed</b>
H3: Word of Mouth towards a product target positively affects consumer preferences.	<b>Confirmed</b>
H4: Personal factors positively affect consumer preferences.	<b>Confirmed</b>
H5: Social/Cultural Environment positively affects consumer preferences.	<b>Confirmed</b>
H6: Preferences positively affect consumer behaviour.	<b>Confirmed</b>
H7: Quantity (purchasing behaviour towards a product target) positively affects consumer behaviour.	<b>Confirmed</b>
H8: Price perceptions (willingness to pay a fixed price) positively affects consumer behaviour.	<b>Not Supported</b>
H9: The available resources (income) positively affect consumer behaviour.	<b>Not Supported</b>

The results largely support the relationships suggested in the conceptual framework. Specifically, the results indicate that Prior Knowledge, Emotions, Word-of-Mouth, Personal Factors and Social Environment have a positive effect on Preferences. Therefore, all hypothesized drivers of Preferences are found to be significant providing empirical support to the suggested conceptualization. In relating Preferences and Consumer Behaviour, the results reveal that Preferences is positively and strongly related to Consumer Behaviour. This supports the key assertion of the study that Preferences is a significant and key factor that explains Consumer Behaviour.

Coming to the other antecedents of Consumer Behaviour, while Quantity has a positive impact as expected, Price and Resources (income) are found insignificant to Consumer Behaviour. The fact that these two hypotheses are not supported by the findings does not indicate that they no longer affect consumer behaviour, but it suggests that their influence on judgement is not as strong as the influence of the other factors. This is in line with more recent thinking around Consumer theory which argues that cost competitiveness is a necessary but not sufficient condition to differentiate in consumer markets. Instead of cheap or economical products, customers tend to perceive value from the products meeting their needs and, as a result, derive high level of utility from their use. In this respect, the results reveal the role of preferences as a key predictor of Consumer Behaviour.

Interestingly, the results revealed no significant differences when controlled for gender, level of utility, age, nationality, educational level and income, with just a few exceptions. This provides support to the strength and applicability of the conceptualization and the underlying Consumer theory in Economics and Marketing Research perspective. The theoretical perspectives utilized in the study are found sufficient to absorb (or mitigate at some exceptional cases) the variance of the focal constructs (Preferences and

Consumer Behaviour) suggesting that the different groups according to the control variables, demonstrated homogenous results. The study also has theoretical and managerial implications, which will be discussed below.

#### 6.1. Theoretical Implications

The study contributes to the consumer theory literature in several ways. First, the study adds to the understanding of how consumers are driven to their purchasing decisions towards products. Although there has been increasing recognition in the field of Economics that consumer behaviour mainly involves the development and co-existence of favorable price, quantity and resources (income), the consumer's preferences towards a product target seems to be ignored when considering the main elements from an Economics perspective. This suggests a narrow approach that prevents academics and practitioners from fully understanding how to drive favorable consumer behaviours towards products. As a result, it is not surprising that academics still struggle to capture and systematic analyze a cohesive set of factors that sufficiently explain the variance of consumer behaviour. The present study posits that Preferences are a key dimension that should be taken into consideration when studying the drivers of behaviour. It provides a comprehensive view of consumer behaviour and consumer preferences by incorporating insights and theories from both, the Economics and Consumer Research areas.

Second, the study provides insights into how Preferences relate to Consumer Behaviour as it empirically examines the link between the constructs of these two variables. The empirical investigation of these relationships is particularly important since the formulation of Preferences and the inclusion in the set of variables that affect Consumer Behaviour suggests a key area where there is lack of empirical research available in the area of Economics. Moreover, the findings show that Preferences significantly affect Consumer Behaviour which highlights the role of utility, perceived as the consumer's

happiness and satisfaction towards a target, as a key determinant of the purchasing decisions. Also, the findings indicate that the achievement of favorable Consumer Behaviour requires the establishment of strong Preference towards a product target first, and thereby provides support of the need to approach Consumer Theory from an Economics viewpoint but also from a customer-centric, marketing perspective.

Third, using insights from Economics, Marketing and Consumer theory, it is suggested an integrative examination of consumer-related (intrinsic factors) and external-related factors of Consumer Behaviour that have often been viewed in isolation from each other. After extensive research of the pertinent literature, it seems that the present study is the first attempt so far to synthesize these constructs to form a framework of Consumer Behaviour. Even though the study increases the complexity of capturing the elements of Consumer Behaviour by means of the addition of Preferences and the underlying antecedents of the construct, at the same time it provides a deeper understanding of the antecedents of favorable Consumer Behaviour. In addition, it further develops the theoretical basis of Consumer theory as an integrative examination of measurable though customer-centric strategies in consumer, rather than just an application of the traditional Economic-driven theories. Consumer Behaviour should not be viewed only within the boundaries of the selling organization and the factors that can objectively determine (price, quantity): consumer's preferences play a critical role in the formulation of favorable behaviour.

Fourth, and consistent to the above discussion, a key message and probably the most important implication of the findings of the study, is the need for Interdisciplinary Integration between Consumer theory in Economics and Marketing Research in order to better understand how Consumer Behaviour works. To date, researchers in both economics and marketing areas have approached the question of consumer theory from

different perspectives. Economics researchers assume that consumers come to the market with well-defined, insatiable desires for private goods and services; those desires are not affected by social interactions, culture, or the consumption choices or well-being of others; only prices, incomes, and personal tastes affect consumption-and since tastes are exogenous to neoclassical economics, there is little point in talking about anything but prices and incomes. On the other hand, marketing researchers tend to focus more on understanding the consumer behaviour. The main principles of consumer theory according to the marketing perspective is that consumers vary as well as the motives driving their behaviour, there is a great uncertainty and many factors/stimuli occurring at the same time. The findings suggest that, alone, principles of Economics are insufficient to explain behaviour, however, the integration with insights from the area of Marketing can help researchers to better understand the factors driving it.

Researchers can benefit tremendously by exchanging and integrating insights from these two different disciplines. For instance, how consumer behaviour can become more measurable (i.e. marketing perspective) or how the research agenda of the consumer theory (i.e. economics perspective) can be enriched by consolidating qualitative in nature ('soft') factors, such as consumers' preferences, that have been considered exogenous to date. The results of the study showed the superiority of the model with the Preferences over the model without the Preferences, indicating therefore that both Economics and Marketing perspectives are important to fully understand the consumer behaviour. In this context, the study has implications for both micro-economics and marketing paradigms. From a micro-economic viewpoint, the findings indicate that the consumer theory, although relevant, alone is insufficient to capture the full range of drivers of consumer behaviour. Other factors that relate to preferences should be added in the equation and hence the research agenda should be enriched with additional parameters,



qualitative in nature, that are able to provide more pragmatic models of explaining consumer behaviour (Sheth *et al.*, 2012). From a marketing viewpoint, the findings indicate that identifying the different drivers/stimuli of consumer behaviour is not enough. A measureable and numerical evaluation of them is needed so that the relative importance of each driver can be determined and thus more robust models are produced. The marketing paradigm can (and should) utilise advancements from the field of microeconomics. A final message that emerges therefore, is that the interdisciplinary findings of the study enlighten both areas and stress the importance of their integration.

## 6.2. Managerial implications

Further to the theoretical contribution, this study has also some significant managerial implications. First, understanding how specific dimensions relate to creation of favorable consumer behaviour can help suppliers enhance consumer-related policies and strategies through initiatives involving those factors. The findings show that customers seem more concerned about benefits than cost considerations. The study argues that although internal cost reduction, which ultimately can lead to price reduction, should not be ignored, suppliers should focus on creating value through Preferences, and through the influence of positive prior knowledge, emotions, word-of-mouth, and social environment. Cost competitiveness is a necessary but not sufficient condition to differentiate in consumer markets. In other words, benefits are more important than costs when it comes to choosing the main product from the short list of potential alternative products. For getting on the short list, price and resources (income) are still of major importance.

Second, and more specifically, the study provides guidance on how decisions at a micro/consumer level can have the greatest influence on driving favorable consumer behaviours. In particular, suppliers should build positive preferences towards a product

and in order to do so, the company can (and should) determine a number of policies related to the quantity, price and resources (income) of the consumers they target (specification of their target group). At the same, a number of additional factors (prior knowledge, emotions, word-of-mouth, personal factors social environment) indirectly affect behaviour and attitudes via preferences. These factors touch upon consumer-focused elements and broader social influences and, clearly, companies have limited, if any, control over them. However, this should not prevent them from continuously improving the quality of their products and their reputation as this can positively affect the broader environment consumers seek for evidence in order to formulate preferences and, ultimately, can affect the individual purchasing behaviour.

Third, at a more general level, suppliers should see the influence of consumer behaviour as a creation process that pivots around customer's preferences. This implies that favorable consumer behaviour not only involves activities that a seller determined and aimed, such as the price and the quantity, but might also involve factors created from the consumers, such as preferences. In this respect, successful influence of consumer behaviour will exhibit high levels of utility and favorable preferences towards a product. Sometimes, though, the influence of these factors might not be so feasible, because the factors driving preferences are often beyond company's control. For example, suppliers often find difficult to create positive word-of-mouth or positive associations to consumer's mind although the product may achieve high quality standards. Hence, while suppliers may be well aware of what they need to do in order to achieve favorable consumer behaviour, in practice they may not be able to do it. This is probably due to factors that suppliers cannot easily control, such as the sector's characteristics, consumer personal factors, prior experience with the product, competitive/alternative products or broader macro-factors such as economic recession. Although these factors cannot be ignored,

suppliers should be motivated to engage in building favorable preferences, since the benefits of such an approach are significant. To do so, the study suggests that there should be a change of mind-set. Suppliers should consider both the 'quantitative' factors the Consumer theory in Economics recommends as well as the 'soft', more customer-focused factors the Marketing Research suggests. Both approaches provide managers with useful guidance on how to drive favorable consumer behaviour.

## CHAPTER 7. LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH.

The present study has some limitations that offer opportunities for future research. First, it identifies certain drivers of consumer's preferences and, consequently, consumer behaviour. Although the suggested conceptualization is well grounded and adds to the emerging literature of consumer theory, the constructs that were eventually included in this study are not exhaustive. It is likely that favorable consumer behaviour can also be the result of other factors beyond the scope of this study (marketing policies of the supplier, macro-factors such as economic recession, intensity of competition, lack of alternative products, etc.). Future research can enrich the research agenda by considering additional dimensions that stem from the economics and/or the marketing areas, which can explain additional percentage of the variance of consumer behaviour and, consequently, will add to the understanding of the antecedents of behaviour in consumer electronic markets. Consistently, future studies can also examine under which circumstances (e.g. competitive intensity, technological uncertainty, emerging consumer needs) the impact of the hypothesized factors on the Preferences and Consumer Behaviour is stronger. Future research can therefore test for potential moderating effects in an attempt to get a deeper understanding of how favorable purchasing behaviours are created.

Second, this study relied only on single respondents. Although the results provide no evidence that common method bias was a problem, the risk nevertheless remains (Podsakoff et al., 2003). Because potential biases cannot be excluded, future research could employ multiple data sources.

Third, given the dynamic nature of the constructs under investigation future longitudinal research will offer useful insights on how the preferences and the perceived utility are evolving over time. Although this study contributes towards this direction, it remains a static assessment of the different aspects of consumer behaviour.

Finally, future research could compare results in different countries and industries (other than consumer electronics). This would add to the generalizability of the findings.

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## APPENDIX

### 1. Survey Questionnaire

#### CONSUMER BEHAVIOUR IN THE ELECTRONICS SECTOR

We would be grateful for your co-operation in this investigation into consumer behavior in the electronics sector. The project is being undertaken as part of my PhD thesis in Lord Ashcroft Business School, Anglia Ruskin University. Please have **a specific electronic product that you are familiar with (either you currently have and/or you had it in the past)** in mind when filling the questionnaire.

We will gladly send you a summary of the results of this survey, if you leave your email address in the box provided at the end of the questionnaire. Our thanks in advance for your help and we assure you that all answers are strictly confidential and will be used exclusively for academic purposes.

#### 1. Consumer behaviour in the electronics sector

Please mention the type of electronic product your answers will refer to. Select one option only. No name/ brand of the product is needed.

##### Type of product:

<input type="checkbox"/> Mobile phones/ smartphones	<input type="checkbox"/> TV sets	<input type="checkbox"/> DVD/ Blue-Ray players	<input type="checkbox"/> Electronic toys/ games
<input type="checkbox"/> Audio players (e.g. CD players, MP3 players)	<input type="checkbox"/> Laptops/ PCs	<input type="checkbox"/> Digital cameras	<input type="checkbox"/> E-book devices
<input type="checkbox"/> Tablets	<input type="checkbox"/> GPS navigation devices	<input type="checkbox"/> Calculators	<input type="checkbox"/> Other:.....

1. Please rate your level of agreement/disagreement with the following statements about your chosen product (XYZ)

	Strongly disagree				Strongly agree			
PRIOR KNOWLEDGE <sup>7</sup>								
I consider myself knowledgeable about XYZ	1	2	3	4	5	6	7	
I know much about the different features of XYZ	1	2	3	4	5	6	7	
I have sufficient knowledge about XYZ	1	2	3	4	5	6	7	
I am familiar with XYZ	1	2	3	4	5	6	7	
I know pretty much about XYZ	1	2	3	4	5	6	7	
EMOTIONS <sup>8</sup>								
XYZ makes me feel good	1	2	3	4	5	6	7	
I have positive feelings towards XYZ	1	2	3	4	5	6	7	
Love to use XYZ	1	2	3	4	5	6	7	
Is pleasant while using XYZ	1	2	3	4	5	6	7	
WORD OF MOUTH <sup>9</sup>								
I say positive things about XYZ to other people	1	2	3	4	5	6	7	
I recommend XYZ to someone who seeks your advice	1	2	3	4	5	6	7	
I encourage friends and relatives to do business with X	1	2	3	4	5	6	7	
PERSONAL FACTORS								
My personality fits to XYZ	1	2	3	4	5	6	7	
I deserve to have XYZ	1	2	3	4	5	6	7	
My lifestyle fits to XYZ	1	2	3	4	5	6	7	
I consider XYZ as a safe (not risk) choice	1	2	3	4	5	6	7	
SOCIAL/ ENVIRONMENT <sup>10</sup>								
XYZ is well received by others (friends, family)	1	2	3	4	5	6	7	
XYZ improves my image	1	2	3	4	5	6	7	
XYZ makes good impression	1	2	3	4	5	6	7	
XYZ gives me social approval	1	2	3	4	5	6	7	
PREFERENCE								
I consider XYZ the right product for me	1	2	3	4	5	6	7	
I prefer XYZ among other competitive products in the marketplace	1	2	3	4	5	6	7	
XYZ is the first choice for me when choosing from this type of products	1	2	3	4	5	6	7	
I don't regret choosing XYZ	1	2	3	4	5	6	7	

<sup>7</sup> Park and Mothersbaugh (1994); Mitchell and Dacin (1996); Srinivasan and Ratchford (1991); Flynn and Goldsmith

(1996); Dheeraj Awasthy, Arindam Banerjee, Bibek Banerjee, (2012)

<sup>8</sup> Newly developed scale and items from Sweeney and Soutar (2001)

<sup>9</sup> Zeithaml et al. (1996)

<sup>10</sup> Sweeney and Soutar (2001)

	Strongly disagree						Strongly agree
<b>PRICE</b>							
I consider the price of XYZ right	1	2	3	4	5	6	7
I was happy to pay the price of XYZ	1	2	3	4	5	6	7
The price of XYZ is reasonable	1	2	3	4	5	6	7
The price of XYZ corresponds to its quality	1	2	3	4	5	6	7
<b>UTILITY</b>							
My happiness is increased by using XYZ	1	2	3	4	5	6	7
My satisfaction is increased by using XYZ	1	2	3	4	5	6	7
My happiness is increased by using XYZ against a substitute product	1	2	3	4	5	6	7
My satisfaction is increased by using XYZ against a substitute product	1	2	3	4	5	6	7
My expectations by using XYZ are satisfied	1	2	3	4	5	6	7
My income would allow me to buy a new version of XYZ	1	2	3	4	5	6	7
Based on my income, I would be happy to buy a new version of XYZ	1	2	3	4	5	6	7
Based on its price, I would be happy to buy a new version of XYZ	1	2	3	4	5	6	7

**RESOURCES (INCOME)**

Would you be happy to pay more for XYZ if price increases?

☐ Yes ☐ No

If yes, how much more from the price that you have originally paid for XYZ are you willing to pay?:

☐ 2% ☐ 5% ☐ 10% ☐ 15% ☐ 20% ☐ 30% ☐ 40%

	Strongly disagree						Strongly agree
<b>RESOURCES (INCOME)</b>							
My income was sufficient to purchase XYZ	1	2	3	4	5	6	7
Considering my income, I found the cost of XYZ affordable	1	2	3	4	5	6	7
The cost of XYZ did not exceed my available budget	1	2	3	4	5	6	7

Have you purchased XYZ in the past?

☐ Yes ☐ No

If you have purchased in the past, how many items of XYZ or different versions (size, improved technology, etc.) of XYZ have you purchased?:

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 or more

If you have purchased XYZ in the past:	Strongly disagree				Strongly agree		
<b>QUANTITY</b>							
I am planning to purchase more items of XYZ or different version of XYZ in the future	1	2	3	4	5	6	7

	Strongly disagree				Strongly agree		
<b>CONSUMER BEHAVIOUR</b>							
I will prefer to buy XYZ over alternative products/brands in the marketplace	1	2	3	4	5	6	7
I have every intention to buy XYZ in the future	1	2	3	4	5	6	7
Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	1	2	3	4	5	6	7
When/if a need of a product of this kind comes, XYZ will be my first choice	1	2	3	4	5	6	7

## 2. Demographics

### Gender

☐ Male ☐ Female

### Age:

☐ under 18 ☐ 19-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ over 65

### Nationality:

☐ British ☐ EU ☐ International

### Employment status:

☐ Employed ☐ self-employed ☐ Out of work and looking for work ☐ unable to work

☐ Student ☐ Retired ☐ Out of work but not currently looking for work

### If you are currently working, in which sector you are working:

☐ Manufacturing ☐ Service provider

☐ Retail ☐ Other: .....

### Marital status:

## Consumer Theory in Microeconomics and Marketing Research

<input type="checkbox"/> Single, never married	<input type="checkbox"/> Widowed	<input type="checkbox"/> Separated
<input type="checkbox"/> Married or civil partnership	<input type="checkbox"/> Divorced	

**Education:**

<input type="checkbox"/> No schooling completed	<input type="checkbox"/> High school graduate, diploma or the equivalent	<input type="checkbox"/> Trade/technical/vocational training	<input type="checkbox"/> Master's degree
<input type="checkbox"/> Some high school, no diploma	<input type="checkbox"/> Some college credit, no degree	<input type="checkbox"/> Bachelor's degree (University/College)	<input type="checkbox"/> Doctorate degree

**(Personal) monthly income:**

<input type="checkbox"/> under £500	<input type="checkbox"/> £1001- £1500	<input type="checkbox"/> £2001- £3000	<input type="checkbox"/> over £4000
<input type="checkbox"/> £501 - £1000	<input type="checkbox"/> £1501- £2000	<input type="checkbox"/> £3001 - £4000	

**THANK YOU FOR YOUR TIME!**

### 2. Descriptive Statistics - SPSS Output

Type of product		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mobile phones/ smartphones	127	46.4	46.4	46.4
	Audio players (e.g. CD players, MP3 players)	17	6.2	6.2	52.6
	Tablets	17	6.2	6.2	58.8
	TV sets	11	4.0	4.0	62.8
	Laptops/ PCs	46	16.8	16.8	79.6
	GPS navigation devices	9	3.3	3.3	82.8
	DVD/ Blue-Ray players	9	3.3	3.3	86.1
	Digital cameras	14	5.1	5.1	91.2
	Calculators	6	2.2	2.2	93.4
	Electronic toys/ games	10	3.6	3.6	97.1
	E-book devices	8	2.9	2.9	100.0
	Total	274	100.0	100.0	

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
I consider myself knowledgeable about XYZ	274	2	7	5.12	1.332
I know much about the different features of XYZ	274	1	7	4.79	1.648
I have sufficient knowledge about XYZ	273	1	7	5.00	1.462
I am familiar with XYZ	274	2	7	5.69	1.343
I know pretty much about XYZ	274	1	7	5.28	1.512
XYZ makes me feel good	274	1	7	4.99	1.587
I have positive feelings towards XYZ	274	1	7	4.38	1.828
Love to use XYZ	274	1	7	5.36	1.479
Is pleasant while using XYZ	274	1	7	5.23	1.346
I say positive things about XYZ to other people	273	1	7	4.85	1.570
I recommend XYZ to someone who seeks your advice	273	1	7	5.28	1.633
I encourage friends and relatives to do business with X	271	1	7	3.89	1.843
My personality fits to XYZ	273	1	7	5.03	1.495
I deserve to have XYZ	272	1	7	5.03	1.622
My lifestyle fits to XYZ	272	1	7	5.76	1.366
I consider XYZ as a safe (not risk) choice	271	1	7	6.06	1.256
XYZ is well received by others (friends, family)	273	1	7	4.74	1.544
XYZ improves my image	274	1	7	4.51	1.810
XYZ makes good impression	274	1	7	4.38	1.672
XYZ gives me social approval	273	1	7	4.31	1.821
I consider XYZ the right product for me	274	2	7	5.76	1.132
I prefer XYZ among other competitive products in the marketplace	274	1	7	4.91	1.648
XYZ is the first choice for me when choosing from this type of products	273	1	7	5.42	1.354
I don't regret choosing XYZ	273	1	7	5.79	1.166
I consider the price of XYZ right	274	1	7	4.89	1.330
I was happy to pay the price of XYZ	274	1	7	4.70	1.504
The price of XYZ is reasonable	274	1	7	4.77	1.377



The price of XYZ corresponds to its quality	274	1	7	5.47	1.270
My happiness is increased by using XYZ	274	1	7	4.72	1.652
My satisfaction is increased by using XYZ	274	1	7	5.11	1.509
My happiness is increased by using XYZ against a substitute product	274	1	7	4.21	1.718
My satisfaction is increased by using XYZ against a substitute product	273	1	7	4.32	1.732
My expectations by using XYZ are satisfied	273	1	7	5.66	1.003
My income would allow me to buy a new version of XYZ	271	1	7	5.02	1.591
Based on my income, I would be happy to buy a new version of XYZ	273	1	7	4.67	1.778
Based on its price, I would be happy to buy a new version of XYZ	274	1	7	4.38	1.678
Valid N (listwise)	252				

**Would you be happy to pay more for XYZ if price increases?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	137	50.0	50.2	50.2
Valid No	136	49.6	49.8	100.0
Total	273	99.6	100.0	
Missing 999	1	.4		
Total	274	100.0		

**If yes, how much more from the price that you have originally paid for XYZ are you willing to pay?:**

	Frequency	Percent	Valid Percent	Cumulative Percent
2%	21	7.7	14.7	14.7
Valid 5%	46	16.8	32.2	46.9
10%	47	17.2	32.9	79.7

15%	15	5.5	10.5	90.2
20%	12	4.4	8.4	98.6
30%	1	.4	.7	99.3
40%	1	.4	.7	100.0
Total	143	52.2	100.0	
Missing 999	131	47.8		
Total	274	100.0		

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
My income was sufficient to purchase XYZ	272	1	7	5.13	1.654
Considering my income, I found the cost of XYZ affordable	272	1	7	4.78	1.742
The cost of XYZ did not exceed my available budget	272	1	7	5.14	1.695
Valid N (listwise)	272				

**Have you purchased XYZ in the past?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	208	75.9	76.2	76.2
Valid No	65	23.7	23.8	100.0
Total	273	99.6	100.0	
Missing 999	1	.4		
Total	274	100.0		

**If you have purchased in the past, how many items of XYZ or different versions (size, improved technology, etc.) of XYZ have you purchased?:**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	78	28.5	35.3	35.3
Valid 2	68	24.8	30.8	66.1

3	42	15.3	19.0	85.1
4	17	6.2	7.7	92.8
5	10	3.6	4.5	97.3
6	4	1.5	1.8	99.1
7 or more	2	.7	.9	100.0
Total	221	80.7	100.0	
Missing	999	53	19.3	
Total	274	100.0		

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
I am planning to purchase more items of XYZ or different version of XYZ in the future	261	1	7	4.53	1.715
Valid N (listwise)	261				

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
I will prefer to buy XYZ over alternative products/brands in the marketplace	272	1	7	4.45	1.709
I have every intention to buy XYZ in the future	272	1	7	4.69	1.602
Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	272	1	7	4.76	1.543
When/if a need of a product of this kind comes, XYZ will be my first choice	267	1	55	5.71	3.355
Valid N (listwise)	267				

**Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	133	48.5	48.7	48.7
Valid Female	140	51.1	51.3	100.0
Total	273	99.6	100.0	
Missing 999	1	.4		
Total	274	100.0		

**Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 19-24	52	19.0	19.0	19.0
Valid 25-34	97	35.4	35.4	54.4
Valid 35-44	70	25.5	25.5	79.9
Valid 45-54	40	14.6	14.6	94.5
Valid 55-64	11	4.0	4.0	98.5
Valid over 65	4	1.5	1.5	100.0
Total	274	100.0	100.0	

**Nationality**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid British	149	54.4	54.4	54.4
Valid EU	61	22.3	22.3	76.6
Valid International	64	23.4	23.4	100.0
Total	274	100.0	100.0	

**Employment status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Employed	155	56.6	56.6	56.6
Valid Student	46	16.8	16.8	73.4

Self-employed	42	15.3	15.3	88.7
Retired	6	2.2	2.2	90.9
Out of work and looking for work	16	5.8	5.8	96.7
Out of work but not currently looking for work	8	2.9	2.9	99.6
unable to work	1	.4	.4	100.0
Total	274	100.0	100.0	

**Sector of Work**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Manufacturing	13	4.7	6.2	6.2
Retail	32	11.7	15.3	21.5
Service provider	128	46.7	61.2	82.8
Other	36	13.1	17.2	100.0
Total	209	76.3	100.0	
Missing 999	65	23.7		
Total	274	100.0		

**Marital status**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Single, never married	148	54.0	54.6	54.6
Married or civil partnership	76	27.7	28.0	82.7
Widowed	4	1.5	1.5	84.1
Divorced	30	10.9	11.1	95.2
Separated	13	4.7	4.8	100.0
Total	271	98.9	100.0	
Missing 999	3	1.1		
Total	274	100.0		

**Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Some high school, no diploma	2	.7	.7	.7
	High school graduate, diploma or the equivalent	28	10.2	10.3	11.0
	Some college credit, no degree	15	5.5	5.5	16.5
	Trade/technical/vocational training	26	9.5	9.5	26.0
	Bachelor's degree (University/College)	117	42.7	42.9	68.9
	Master's degree	68	24.8	24.9	93.8
	Doctorate degree	17	6.2	6.2	100.0
	Total	273	99.6	100.0	
Missing	999	1	.4		
Total		274	100.0		

**(Personal) monthly income**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under £500	32	11.7	12.4	12.4
	£501 - £1000	47	17.2	18.1	30.5
	£1001- £1500	45	16.4	17.4	47.9
	£1501- £2000€	54	19.7	20.8	68.7
	£2001- £3000	54	19.7	20.8	89.6
	£3001 - £4000	20	7.3	7.7	97.3
	over £4000	7	2.6	2.7	100.0
	Total	259	94.5	100.0	
Missing	999	15	5.5		
Total		274	100.0		

### 3. Correlation Analysis – SPSS Output

		Correlations					
		Prior Knowledge_total	emotions_total	Word of Mouth_total	Personal Factors_total	Environment_total	Preference_total
Prior Knowledge_total	Pearson Correlation	1	.176**	.480**	.297**	.097	
	Sig. (2-tailed)		.003	.000	.000	.112	
	N	273	273	268	267	271	
emotions_total	Pearson Correlation	.176**	1	.447**	.449**	.496**	
	Sig. (2-tailed)	.003		.000	.000	.000	
	N	273	274	269	268	272	
Word of Mouth_total	Pearson Correlation	.480**	.447**	1	.508**	.350**	
	Sig. (2-tailed)	.000	.000		.000	.000	
	N	268	269	269	263	267	
Personal Factors_total	Pearson Correlation	.297**	.449**	.508**	1	.514**	
	Sig. (2-tailed)	.000	.000	.000		.000	
	N	267	268	263	268	266	
Environment_total	Pearson Correlation	.097	.496**	.350**	.514**	1	
	Sig. (2-tailed)	.112	.000	.000	.000		
	N	271	272	267	266	272	
Preference_total	Pearson Correlation	.378**	.436**	.547**	.533**	.422**	
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	271	272	267	266	270	
Price_total	Pearson Correlation	.124*	.211**	.237**	.423**	.120*	
	Sig. (2-tailed)	.040	.000	.000	.000	.047	

	N	273	274	269	268	272
	Pearson Correlation	.328**	.651**	.495**	.556**	.598**
Utility_total	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	271	272	267	266	270
	Pearson Correlation	-.127*	-.112	-.053	.058	-.256**
Income_total	Sig. (2-tailed)	.037	.065	.387	.342	.000
	N	271	272	267	266	270
	Pearson Correlation	.322**	.331**	.412**	.327**	.415**
Consumer Behaviour_total	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	271	272	267	266	270

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

#### 4. Regression Analysis – SPSS Output

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.646 <sup>a</sup>	.417	.406	.81894

a. Predictors: (Constant), Environment\_total, Prior Knowledge\_total, emotions\_total, Personal Factors\_total, Word of Mouth\_total



**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1.998	.295		6.779	.000	1.417	2.578
Prior Knowledge_total	.111	.043	.144	2.586	.010	.027	.196
emotions_total	.095	.044	.127	2.142	.033	.008	.182
Word of Mouth_total	.185	.046	.257	4.045	.000	.095	.274
Personal Factors_total	.200	.059	.211	3.368	.001	.083	.317
Environment_total	.104	.042	.150	2.505	.013	.022	.186

a. Dependent Variable: Preference\_total

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854 <sup>a</sup>	.729	.724	.755

a. Predictors: (Constant), I am planning to purchase more items of XYZ or different version of XYZ in the future, Income\_total, Price\_total, Preference\_total

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-.107	.330	-.326	.745
	Preference_total	.401	.053	.291	.000
	Price_total	.027	.045	.023	.546
	Income_total	-.029	.032	-.032	.364
	I am planning to purchase more items of XYZ or different version of XYZ in the future	.557	.032	.666	.000

a. Dependent Variable: Consumer Behaviour\_total

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854 <sup>a</sup>	.729	.724	.755

a. Predictors: (Constant), Preference\_total, Income\_total, Price\_total, I am planning to purchase more items of XYZ or different version of XYZ in the future

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-.107	.330	-.326	.745
	Income_total	-.029	.032	-.032	.364
	Price_total	.027	.045	.023	.546
	I am planning to purchase more items of XYZ or different version of XYZ in the future	.557	.032	.666	.000
	Preference_total	.401	.053	.291	.000

a. Dependent Variable: Consumer Behaviour\_total

## 5. Reliability – SPSS Output

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I consider myself knowledgeable about XYZ	20.79	30.947	.879	.949
I know much about the different features of XYZ	21.12	27.766	.877	.950
I have sufficient knowledge about XYZ	20.90	29.219	.911	.942
I am familiar with XYZ	20.21	31.186	.857	.952
I know pretty much about XYZ	20.62	28.847	.900	.944

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
XYZ makes me feel good	14.97	17.490	.850	.870
I have positive feelings towards XYZ	15.58	16.464	.775	.906
Love to use XYZ	14.60	18.343	.850	.872

Is pleasant while using XYZ	14.73	20.161	.772	.901
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**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I say positive things about XYZ to other people	9.16	9.831	.804	.759
I recommend XYZ to someone who seeks your advice	8.72	10.077	.716	.834
I encourage friends and relatives to do business with X	10.12	8.896	.721	.838

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My personality fits to XYZ	16.88	11.577	.663	.714
I deserve to have XYZ	16.87	12.433	.484	.813
My lifestyle fits to XYZ	16.17	11.686	.736	.680
I consider XYZ as a safe (not risk) choice	15.88	13.577	.572	.762

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
XYZ is well received by others (friends, family)	13.21	23.633	.736	.909
XYZ improves my image	13.44	20.048	.853	.868
XYZ makes good impression	13.57	21.361	.842	.873
XYZ gives me social approval	13.66	20.757	.785	.894

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I consider XYZ the right product for me	16.12	12.036	.581	.762
I prefer XYZ among other competitive products in the marketplace	16.98	10.147	.478	.837
XYZ is the first choice for me when choosing from this type of products	16.47	9.771	.741	.676
I don't regret choosing XYZ	16.10	11.030	.709	.705

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I consider the price of XYZ right	14.95	13.726	.813	.869
I was happy to pay the price of XYZ	15.14	12.757	.790	.879
The price of XYZ is reasonable	15.07	13.102	.853	.854
The price of XYZ corresponds to its quality	14.36	14.965	.705	.906

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My happiness is increased by using XYZ	33.38	47.831	.492	.736
My satisfaction is increased by using XYZ	33.02	47.131	.591	.720
My happiness is increased by using XYZ against a substitute product	33.90	46.079	.548	.725
My satisfaction is increased by using XYZ against a substitute product	33.83	46.942	.497	.735
My expectations by using XYZ are satisfied	32.47	52.362	.573	.736
My income would allow me to buy a new version of XYZ	33.08	54.058	.224	.781
Based on my income, I would be happy to buy a new version of XYZ	33.47	48.445	.405	.754
Based on its price, I would be happy to buy a new version of XYZ	33.72	47.624	.486	.737

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My income was sufficient to purchase XYZ	9.92	11.105	.882	.936
Considering my income, I found the cost of XYZ affordable	10.27	10.236	.924	.904
The cost of XYZ did not exceed my available budget	9.92	10.867	.879	.938

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I will prefer to buy XYZ over alternative products/brands in the marketplace	15.16	26.907	.479	.594
I have every intention to buy XYZ in the future	14.91	25.026	.664	.507
Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	14.83	25.359	.677	.508
When/if a need of a product of this kind comes, XYZ will be my first choice	13.88	18.509	.296	.859

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I will prefer to buy XYZ over alternative products/brands in the marketplace	9.46	9.371	.583	.944
I have every intention to buy XYZ in the future	9.21	8.346	.808	.730

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Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	9.14	8.544	.828	.716
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**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My happiness is increased by using XYZ	19.31	24.656	.671	.836
My satisfaction is increased by using XYZ	18.93	25.176	.721	.823
My happiness is increased by using XYZ against a substitute product	19.81	22.500	.793	.802
My satisfaction is increased by using XYZ against a substitute product	19.73	23.047	.742	.817
My expectations by using XYZ are satisfied	18.38	31.529	.514	.872



## 6. Factor Analysis – SPSS Output

**Component Matrix<sup>a</sup>**

	Component
	1
I have sufficient knowledge about XYZ	.944
I know pretty much about XYZ	.938
I consider myself knowledgeable about XYZ	.923
I know much about the different features of XYZ	.922
I am familiar with XYZ	.909

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
Love to use XYZ	.923
XYZ makes me feel good	.918
Is pleasant while using XYZ	.876
I have positive feelings towards XYZ	.869

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
I say positive things about XYZ to other people	.919
I encourage friends and relatives to do business with X	.875
I recommend XYZ to someone who seeks your advice	.874

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
XYZ improves my image	.920
XYZ makes good impression	.917
XYZ gives me social approval	.878
XYZ is well received by others (friends, family)	.848

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
I don't regret choosing XYZ	.879
XYZ is the first choice for me when choosing from this type of products	.872
I consider XYZ the right product for me	.794
I prefer XYZ among other competitive products in the marketplace	.657

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
The price of XYZ is reasonable	.925
I consider the price of XYZ right	.901
I was happy to pay the price of XYZ	.884
The price of XYZ corresponds to its quality	.824

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component	
	1	2
My happiness is increased by using XYZ against a substitute product	.844	-.249
My satisfaction is increased by using XYZ	.838	-.061

My satisfaction is increased by using XYZ against a substitute product	.809	-.269
My happiness is increased by using XYZ	.791	-.166
My expectations by using XYZ are satisfied	.706	.200
Based on my income, I would be happy to buy a new version of XYZ	.206	.917
My income would allow me to buy a new version of XYZ	.004	.897
Based on its price, I would be happy to buy a new version of XYZ	.350	.790

Extraction Method: Principal Component Analysis.

a. 2 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
Considering my income, I found the cost of XYZ affordable	.967
My income was sufficient to purchase XYZ	.947
The cost of XYZ did not exceed my available budget	.946

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	.929
I have every intention to buy XYZ in the future	.924
I will prefer to buy XYZ over alternative products/brands in the marketplace	.760
When/if a need of a product of this kind comes, XYZ will be my first choice	.462

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
I will prefer to buy XYZ over alternative products/brands in the marketplace	.779
I have every intention to buy XYZ in the future	.935
Considering all risk and uncertainty the purchase of this type of products involve, I am confident that I will buy XYZ in the future	.941

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

**Component Matrix<sup>a</sup>**

	Component
	1
My happiness is increased by using XYZ	.799
My satisfaction is increased by using XYZ	.839
My happiness is increased by using XYZ against a substitute product	.871
My satisfaction is increased by using XYZ against a substitute product	.841
My expectations by using XYZ are satisfied	.661

Extraction Method: Principal Component Analysis.

a. 1 components extracted.