A Study of the Antecedents and Consequences of Consumers' Need for Affective and Cognitive Touch in a Retail Environment

by

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Declaration

This is to declare that:

- This thesis has been written by me
- I am responsible for the research work submitted in this thesis
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Abstract

One of the key differentiators in physical retail environments compared to online shopping is the opportunity of using touch to physically evaluate products. Previous studies have ascertained the effect of touch on the evaluation outcome of retail product offerings. What is not known, however, is the type of shopper characteristics associated with the type of touch that shoppers seek. This thesis examines two types of need for touch, one affective and the other cognitive in nature. It argues that these two types of need for touch are likely to be influenced by different sets of factors and have largely different consequences.

Key literature is first reviewed and a conceptual framework comprising the various hypotheses is proposed and then empirically tested. Pre-studies are used to test and refine the constructs and to develop the final questionnaire. A total of 318 respondents who shop at physical retail outlets form the sample for this research. Confirmatory Factor Analysis (CFA) is used to assess the fit of the measurement components of the model and to further refine the constructs. Structural Equation Modelling (SEM) is used to empirically test the proposed hypotheses.

The results show how personality, lifestyle traits, consumers' perceived knowledge and choice goals form a sequential process leading to different tactile inputs that consumers seek in a retail setting. Among the consequences, results show that consumers employing affective touch are likely to purchase impulsively. Results also show that both types of consumers, those employing affective and those employing cognitive touch, find satisfaction with the decision-making process, though consumers who employ cognitive touch also tend to feel outcome regret due to over-consideration. The research also provides valuable information to managers by separating consumers requiring varying forms of touch into identifiable segments. Limitations of the study and suggestions for future research are also provided.

Abbreviations

AGFI	-	Adjusted Goodness-of-Fit
AGO	-	Approach Goal Orientation
AOR	-	Anticipated Outcome Regret
APR	-	Anticipated Process Regret
AVE	-	Average Variance Extracted
BLY	-	Brand Loyalty
CEST	-	Cognitive-Experiential Self-Theory
CFA	-	Confirmatory Factor Analysis
CFI	-	Comparative Fit Index
CFT	-	Counterfactual Thinking
CMIN/DF	-	Minimum Discrepancy divided by its Degrees of Freedom
CPK	-	Consumers' Perceived Knowledge
CSN	-	Consumption Satisfaction
DSN	-	Decision Satisfaction
ECP	-	Evaluative Concerns Perfectionism
EFA	-	Exploratory Factor Analysis
GFI	-	Goodness-of-Fit
IAY	-	Intuitive Ability
IBG	-	Impulse Buying
IFI	-	Incremental Fit Index

MCM	-	Money Conservatism
MPS	-	Multidimensional Perfectionism Scale
NAT	-	Need for Affective Touch
NCT	-	Need for Cognitive Touch
NFI	-	Normed Fit Index
NNFI	-	Non-Normed Fit Index
NTE	-	Need to Evaluate
ORT	-	Outcome Regret
PER	-	Perfectionism
PGI	-	Parsimony Goodness-of-Fit Index
PI	-	Perfectionism Inventory
PNFI	-	Parsimonious Normed Fit Index
PSP	-	Personal Standards Perfectionism
PTM	-	Predisposition towards Maximisation
REI	-	Rational-Experiential Inventory
RMR	-	Root Mean Square Residual
RMSEA	-	Root Mean Square Error of Approximation
SD	-	Semantic Differential
S.D.	-	Standard Deviation
SEM	-	Structural Equation Modelling/ Structural Equation Model
SMG	-	Self-Monitoring
SRMR	-	Standardised Root Mean Square Residual
TLI	-	Tucker Lewis Index

CHAPTER 1: INTRODUCTION

1.1 Scope of the Research

Sight, hearing, taste, smell and touch are traditionally acknowledged to be the five most basic senses. It is through these senses that humans perceive things in the world, both in terms of time and space (Boernstein 1955). Among these, sight and touch have been noted to be used more than other senses. Boernstein (1955) notes that one of the leading sense physiologists of his time, Johannes von Kries, described sight and touch to be the “senses par excellence”.

In consumer behaviour and marketing, sensory stimuli has been used by marketers to drive sales and increase customer satisfaction. Soars (2009) notes that, if applied appropriately, sensory stimuli have the power to “calm, de-stress, energise, improve mood, influence decision-making and hence the propensity to spend”.

Touch is described as the most basic sensory process and also as the earliest and most rudimentary form of communication (Major 1981). The benefits of touch in the consumer behaviour context were first explored in social psychology studies. Interpersonal touch, a form of nonverbal behaviour was shown to result in increased positive response from the consumer (Crusco and Wetzel 1984). Since then, touch has been shown to play a significant role in marketing and consumer behaviour (Guéguen and Jacob 2006).

Though a lot of research has been conducted on interpersonal touch and its implications in many fields including consumer behaviour, little is known about consumers' need for touch before, during and after making a purchase. Peck and Childers (2003a) point out that various types of products in varying situations motivate shoppers to touch them prior to purchase, underlining the need for more research in the domain of product touch. Stressing the need for research in this area, Krishna and Morrin (2008) call for a better understanding of the profile of haptically oriented consumers. The interest of touch in this research, therefore, is to better understand the antecedents and consequences of consumers' use of touch as a medium through which to evaluate products and decide whether or not to buy them.

From the viewpoint of practitioners, the implications of touch in the field of marketing are more substantial than was previously believed (Peck and Wiggins 2006). Shu and Peck (2007), through a series of studies, show how for products that are fun-to-touch, touch leads not only to higher valuation, but also greater psychological ownership on the part of consumers. Though this finding is limited to objects that are fun-to-touch, it has significant marketing implications. Touch even affects taste, as has been demonstrated by the studies of Krishna and Morrin (2008). For some consumers, judgment of the water they drink was found to be directly related to the quality of the cup in which the water was served. This could extend to another example cited by the authors – food served on a china plate seeming to taste better than the same served on a paper plate. This phenomenon is attributed to the transfer of haptic characteristics from the product containers to an opinion on the product itself. Hamilton and Thompson (2007) demonstrate that direct experience, more than indirect ones, leads to more concrete mental representations. Touch is therefore not only the most direct form of product experience to gain product information as it involves hands-on physical evaluation, but also enables consumers to value the product more. Recent research thus validates the significant role touch plays in purchasing products and how important it is for practitioners to have a better understanding of consumers' need for touch in a retail environment.

This research explores one specific area of touch: consumers' need for touch in a retail environment, a subject which has not been extensively researched before. With online shopping growing at a rapid rate, the ability for consumers to physically handle products before making a purchase decision is one of the key differentiators a physical retail outlet can offer. This research attempts, therefore, to develop a holistic model tracing the various antecedents and consequences of consumers' need for touch in a retail environment. The following section describes how allowing consumers to physically touch products is one of the ways in which the online challenge can be offset.

1.1.1 Offsetting the Online Challenge

Online shopping is witnessing constant growth. In 2010, according to the Centre of Retail Research, as a percentage of total retail sales, online retail sales share is about 6% in Europe, about 8 to 9% in the US and close to 11% in Britain (http://www.retailresearch.org/onlineretailing.php, accessed on March 15, 2011). Online retail sales in the US are predicted to reach $229 billion by 2013 (Evans 2009). Online shopping sites that are 'high in sense-making and in exploratory potential' can increase consumers' approach behaviour towards them (Demangeot and Broderick 2010). Consumers find it convenient to shop online, saving time, energy and sometimes even money.

When the product is fabric, soft furnishings and made of other similar materials, however, consumers by and large prefer not to shop online. Citrin, Stem, Spangenberg and Clark (2003) identify this as a deficiency of online retailing efforts where consumers are unable to physically touch products before making purchase decisions. Phillips, Donoho, Keep, Mayberry, McCann, Shapiro and Smith (1997) report that the lack of choice of sensory experience is a deterrent for consumers from using the internet for purchasing these types of product. They suggest that products that require multi-sensory input are less likely to be purchased over the Internet. Conducting research into catalogue shopping, Spence, Engel and Blackwell (1970) found that consumers viewed the inability to physically touch and inspect merchandise as a risk while shopping through direct mail.

Whilst online shopping among consumers is thus on the rise, this is not the case for products that require touch to be properly evaluated. This may be the reason why interest in haptic information in marketing as well as consumer behaviour is growing (Peck and Childers 2005). The implications of touch in the field of marketing are more substantial than was previously believed (Peck and Wiggins 2006). Peck and Childers (2003a) point out that various types of products in varying situations motivate shoppers to touch them prior to purchase, underlining the need for more research in the domain of product touch.

Cardello, Winterhalter and Schutz (2003) trace scientific studies in the area of perceptual responses to fabrics to 1926, when a few researchers began analysis of subjective responses to textiles. Gibson (1962) distinguishes between active and passive touch. He views ‘touching’, as it is ordinarily called, as an active form of touch, whereas passive touch is ‘being touched’. In active touch, the perceiver him/herself brings on the impression upon his/her skin and, therefore, is exploratory rather than being merely receptive. Extending this theory to consumer behaviour, this exploratory touch is used to gather more information while choosing products, and to increase confidence before making the purchase decision. That consumers confidence increases when availability of tactile evaluation is present has been shown by the studies of Peck and Childers (2003b). Stressing the important role that haptic evaluation of a product plays, McCabe and Nowlis (2003) go as far as to say that consumers prefer to purchase products from retailers who allow consumers to haptically evaluate the product offerings. Examples given for products requiring tactile inspection include clothing and portable electronics.

The perception of product quality among consumers is also said to undergo a change when consumers are able to touch the products. A prime example of this may be found in the studies of Pincus and Waters (1975), where the researchers show a low-priced pen to be perceived higher in terms of quality when it was not packaged than when it is. This is because it is possible for consumers to assess the intrinsic cues when the pen is not packaged, whereas when it is placed in a package these cues are inaccessible. Wheatley, Chiu and Goldman (1981) note that identification of intrinsic cues and attributes, which are part and parcel of the physical product itself, is essential while consumers evaluate alternatives. The ability of consumers to be able to touch plays an important part in the perception they develop about the quality of the product. Sprott and Shimp (2004) also support the finding that intrinsic cues such as touch have a significant impact on consumers' perception of quality when compared to extrinsic cues like price and brand name.

The commercial success of many products depends a lot on the appearance and feel of fabrics and soft furnishings (Gee, Tomlins, Calver, Darling and Rides 2005). Stressing the important role touch plays in the spheres of fashion and textile, Pense-Lheritier, Guilabert, Bueno, Sahnoun and Renner (2006) observe that being able to touch a product is essential, since this offers a means for perception of quality and attractiveness. McCabe and Nowlis (2003) find that products with primarily material properties, such as clothing or carpeting, are more likely to be preferred in shopping environments that allow physical inspection than in those environments that do not. Grohmann, Spangenberg and Sprott's (2007) study provides evidence that amongst product categories, clothing requires most tactile input by consumers in their evaluating process. The viable explanation from theory is that with products like clothing, for which tactile input is by nature diagnostic, touch enables consumers to make better judgments. Distinguishing between differing levels of product quality for products with material properties is made possible when consumers are allowed to touch products easily. On the contrary, if consumers are not able to touch retailers' offerings, being able to discriminate between products of differing quality becomes all the more difficult. This is especially true when tactile input is necessary for evaluation. Levin, Johnson and Faraone (1984) point out that consumers often replace missing information by an average value, or based on facts previously known or heard. The implication for retailers is therefore that if consumers are not allowed to touch products, good products may well be evaluated less favourably, a risk that may not be worth taking.

It is thus seen that consumers still by-and-large prefer retail stores to online shopping when purchasing certain types of product, and that enabling consumers to physically touch products is a positive differentiator in retail environments when compared to online shopping.

1.1.2 Underlying Reasons for this Research

As described earlier, most research on touch in the area of consumer behaviour and marketing has focused on interpersonal touch, and not consumers' need for touch in a retail environment. This research attempts to fill this gap in the literature. To achieve this objective, the study attempts to trace the various stages leading to consumers' need for touch in a retail environment.

Various factors have shown to influence consumer behaviour in a retail environment. Product category attributes play a major role in determining consumer behaviour and the kind of touch they display in a retail environment (McCabe and Nowlis 2003). Situational factors such as time constraints, crowding, queuing and physical environments have also been shown to influence consumer behaviour in a retail environment (Bearden, Netemeyer and Teel 1989). The important role salespersons play in influencing consumer behaviour in a retail environment has also noted in literature (Menon and Dube 2000). While product category attributes, situational factors, physical environment, salespersons have shown to be influence consumer behaviour in a retail environment, the scope of this research is limited to the behaviour displayed by consumers due to predominantly internal factors like personality, lifestyle traits, product knowledge, goal orientation and not external factors which influence their behaviour in a retail environment.

The relationships between various personality and lifestyle traits, consumer knowledge and goal orientation, which have not been much explored in research, are studied to gain a better understanding of the antecedents of consumers' need for touch in a retail environment. Also, to provide a holistic view, the consequences of consumers' need for touch in a retail environment, with regards to impulse buying, satisfaction, brand loyalty and outcome regret, are studied. This research, therefore, attempts to provide a holistic model of the antecedents and consequences of consumers' need for touch in a retail environment. Table 1.1 details the focus of this dissertation.

Table 1.1 Focus of Dissertation

Broad Topics	Covered in Literature	Focus of Dissertation
Basic Senses	Sight, Hearing Taste, Smell and Touch	Consumers' touching products
Environment	Physical Retail Outlets and Online Stores	Physical Retail Outlets
Information Processing	Affective, Cognitive or Both	Affective, Cognitive and Both
Factors Influencing	External (Situational Factors, Physical Environment among others) and Internal (Personality, Lifestyle Traits, Product Knowledge, Goal Orientation among others)	Internal (Personality, Lifestyle Traits, Product Knowledge, Goal Orientation)
Measures/Scales Used	Absolute Measures (Sales, Number of trips/transactions and the like), Relative Measures (Satisfaction, Regret among others)	Relative scales to measure impulse buying, satisfaction, regret and brand loyalty

1.2 Research Problems and Research Objectives

Though an important area of research, consumers' need for touch in a retail environment has not been extensively studied in terms of its antecedents and consequences. There is limited knowledge of the various stages in the consumer decision process leading to consumers' need for touch in a retail environment (Krishna and Morrin 2008). Literature has established two distinct kinds of touch consumers display in a retail environment – affective and cognitive (Peck and Childers 2003b). There has, however, not been much research outlining the specific differences in terms of individual factors and goal orientations leading to the two different kinds of touch – affective and cognitive – that consumers employ in a retail environment.

The objective of this research is, therefore, to identify and analyse consumers' need for touch in a retail environment in a holistic fashion. This will be done by tracing the various factors, in terms of personality and lifestyle traits, consumer knowledge and goal orientation, which generate this need. The consequences of consumers' need for touch in a retail environment, in terms of impulse buying, satisfaction, brand loyalty and outcome regret are also studied to provide a holistic view. The framework thus comprises (1) the impact of personality traits on consumer knowledge (2) the impact on the consumer of personality, lifestyle traits and consumer knowledge on goal orientation, (3) the impact of goal orientation on consumers' need for touch in a retail environment, (4) the impact of consumers' need for touch in a retail environment on impulse buying and brand loyalty, and (5) the impact of consumers' need for touch in a retail environment on satisfaction and consumer outcome regret.

To accomplish these general research objectives, the following specific research objectives emerge:

1) To identify the earliest antecedents of consumers' need for touch in a retail environment. This research identifies individual personality traits as the first and earliest antecedent of consumers' need for touch in a retail environment. It examines the role of the following five personality traits:

a. Intuitive Ability

b. Perfectionism

c. Predisposition towards Maximisation

d. Self-monitoring and

e. Need to Evaluate

2) To evaluate the relationship between personality traits and consumer knowledge. In particular, an attempt is made to find the relationship between the personality traits of intuition, predisposition towards maximisation and consumer knowledge.

3) To examine the role of personality and lifestyle traits and how it affects goal orientation of consumers. In particular, the relation between the lifestyle trait of money conservatism and approach goal orientation and between the personality trait of self-monitoring and avoidance goal orientation will be evaluated.

4) To identify the immediate antecedents of consumers' need for touch in a retail environment. This research identifies goal orientation as the third stage antecedent, after individual (personality and lifestyle traits) and product factors. Specifically, the objective is to trace the antecedents of the following goal orientations:

   a. Approach Goal Orientation

   b. Avoidance Goal Orientation

5) To evaluate how consumers with different goal orientations, approach and avoidance, exhibit two varying kinds of need for touch in a retail environment, namely,
    a. Need for Affective Touch, and
    b. Need for Cognitive Touch

6) To find if there exists a relationship between the two dimensions of consumers' need for touch in a retail environment – affective and cognitive.

7) Among the consequences of consumers' need for affective touch in a retail environment, the study explores whether there exists a strong link between consumers' need for affective touch and impulse buying.

8) To find if there is a relationship between consumers' need for affective and cognitive touch and two constructs of satisfaction, namely,
    a. Decision Satisfaction, and
    b. Consumption Satisfaction

9) To find if consumers' need for touch in a retail environment is one of the early antecedents of brand loyalty.

10) To find if there exists any outcome regret for consumers who employ either affective or cognitive touch in a retail environment.

11) Based on the above objectives, 1 – 10, to develop an integrative conceptual framework and test empirically the concurrent links among the variables mentioned above.

12) To contribute to the literature on consumers' need for touch in a retail environment in three ways:
    a. Development of theory
    b. Testing of the theory, and
    c. Generalisation of the theory

13) To provide retailers with practical guidelines to help them better understand consumers' varying need for touch, and to implement successful strategies by effective store design and product placement.

1.3 Research Methodology

1.3.1 Research Setting and Respondents

This research is carried out in the context of a specific setting – consumers who shop in retail stores. With online shopping increasing by the day, it is imperative for retailers to understand which characteristics other than convenience and security, consumers look for in a retail environment. This research duly explores the need for physical touch of products, both affective and cognitive, which is one of the key differentiators between online and physical retail environment. It evaluates the antecedents of consumers' need for affective and cognitive touch in a retail environment – in terms of personality and lifestyle traits, consumer knowledge and goal orientation and also assesses the consequences of consumers' need for affective and cognitive touch in a retail environment – in terms of impulse buying, satisfaction, brand loyalty and outcome regret. The data for this study is obtained from consumers who shop in retail stores.

1.3.2 Data Collection

Survey data was collected from consumers who shop in physical retail stores. A two-step process was employed to collect data. First, though all the constructs were taken from existing literature, questionnaires comprising items measuring the construct as developed in the original scales were distributed to an average of 50 consumers. This was carried out to ensure that all the constructs were reliable, and also to reduce the number of items, measuring each construct to a maximum of four as recommended by Iacobucci (2010). Second, following the pre-test, the final questionnaire was developed with all constructs captured by two to four items. An online survey was employed for the purpose of this data collection. Responses were solicited through e-mail and social networking media. The questionnaire was available online for about four weeks. A total of 380 responses were collected, out of which 318 were complete. Only the complete responses were retained for the analysis, the final sample size therefore being 318.

1.3.3 Data Analysis

As the first step in the data analysis process, the reliabilities of all the constructs measured in the pre-study were checked using SPSS 18. Second, the best two to four items that measured the construct, in terms of reliability, were retained for the final questionnaire. Thirdly, reliability and validity were checked for the constructs in the final questionnaire. Correlations between the constructs were also found to see the relationships between any two constructs. Fourthly, confirmatory factor analysis using a measurement model was used to test the scales using AMOS 18. At this stage, the psychometric properties of the constructs, in terms of internal reliability, convergent validity, and discriminant validity, were tested. The fifth and last step was the development of the full Structural Equation Model (SEM) and the selection of the best fitting model. Hypothesis testing was done at this stage.

1.4 Expected Research Contributions

This research expects to contribute at both the theoretical and managerial levels. In particular, this research expects to contribute to theory at three levels – the development of theory, testing of theory and generalisation of theory. The expected theoretical and managerial contributions are explained in detail below.

1.4.1 Expected Theoretical Contributions

The study attempts to make significant theoretical contributions in understanding the antecedents and consequences of consumers' need for touch in a retail environment.

To the best of the author's knowledge, there has been no research to date that provides a holistic model of this phenomenon, capturing the interactions between the various antecedents and consequences of consumers' need for touch in a retail context. This research, therefore, expects to contribute at the *theory development* level.

Also at the theory development level, this research contributes to the literature on consumers' need for touch by bringing out the various preceding stages that lead to consumers' need for touch in a retail environment. Specifically, this research traces relations between the various antecedents of this need, namely, personality and lifestyle traits, consumer knowledge and goal orientation. The research also traces distinct antecedents to two types of touch that consumers display in a retail environment – affective and cognitive. In addition to tracing the antecedents and the various inter-relationships between them, this research also models the consequences of consumers' need for touch in terms of impulse buying, satisfaction, brand loyalty and outcome regret. Thus, this research expects to contribute significantly in understanding the consumers' need for touch in a retail environment.

This research also attempts to contribute at the *theory testing* level. The contribution at this level is expected to be three-fold. First, the scales used to measure various constructs in previous literature are to be re-tested. Second, more concise scales, having no more than four items to measure each construct, are to be developed. Third, and most important, this research attempts to test the various relationships addressed at the theory development level.

This research does not study any single product category influencing consumers' need for touch in a retail environment. Rather, this research attempts to provide a broader understanding into the antecedents and consequences of consumers' tactile needs. Contribution to *generalisation of theory* is thus made in this way.

In sum, this research expects to make several theoretical contributions to theory development, theory testing and generalisation of theory.

1.4.2 Expected Managerial Contributions

For practitioners, the challenge from online shopping is growing due to factors like convenience (Eastlick and Feinberg 2004), ability to compare and search for information and products (Chiang and Dholakai 2003), price discounts and offers (Donthu and Garcia 1999). However, as the studies of Burke (1997) note, consumers shop in physical stores not only because of entertainment value, but also because shopping from home often does not provide the same level of product information. As pointed out earlier, one of the key differentiators in the physical retail environment remains, viz. the ability of consumers to physically touch and, therefore, haptically evaluate merchandise. Therefore, the importance of consumers' need for both aspects of touch in a retail environment – affective and cognitive – will be clearly brought out.

This research attempts to help retailers by identifying consumers who have a high need for touch in a retail environment as an easily traceable group based on individual (personality and lifestyle traits) and product factors. Also, consumers with two varying tactile needs– affective and cognitive – are traced as an identifiable segment of population to target. Based on the products sold, retailers could encourage consumers to fulfil their affective or cognitive needs to physically touch merchandise.

The factors affecting approach goal orientation towards shopping – a key motivational construct leading to consumers spending money purchasing goods, and the role consumers' knowledge plays in it – are of importance to retailers. The importance of increasing consumer confidence, and thereby their consumer knowledge, is vital in increasing their approach goal orientation. For managers, it is clear that irrespective of the reasons and kind of touch consumers display, the need to touch products in a retail environment remains the same. This research attempts to help practitioners by finding out the relationship between consumer knowledge and approach goal orientation and between approach goal orientation and consumers' need for touch in a retail environment. Also, this research attempts to help practitioners by providing a clearer understanding into the concept of anticipated regret – both outcome and process – and the role it plays in consumers' search for information within a retail store.

Impulse buying, satisfaction, brand loyalty and outcome regret are concepts central not only to academicians but also to practitioners in the field of marketing and consumer behaviour. This research attempts to identify the relationship between these constructs and consumers' need for affective and cognitive touch in a retail environment, thereby throwing greater light on the same.

This research is also expected to help practitioners with product placement and general layout of their stores. Since the antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment will be known, retailers can position and display their products in a way suitable to the type of consumers they attract.

1.5 Structure of the Thesis

The thesis comprises seven chapters. The present chapter (Chapter 1) outlines the scope of the research, the research objectives, the proposed methodology and the expected theoretical and managerial contributions. A comprehensive literature review of all the constructs used in this research is presented in Chapter 2. The chapter starts by providing a generic overview of the concept of 'need for touch', tracing its origins, and also presenting its importance in the field of marketing and consumer behaviour. Chapter 2 then goes on to provide a literature review on the various possible antecedents of consumers' need for touch in a retail environment. These possible antecedents are broadly divided into personality traits, lifestyle traits, consumer knowledge and goal orientation. Following this, Chapter 2 also provides a literature review on some of the expected consequences of consumers' need for touch in a retail environment. Specifically, a literature review on four main concepts, namely, impulse buying, satisfaction, brand loyalty, and outcome regret is provided.

Following the introduction and literature review chapters is Chapter 3, which proposes the conceptual framework. This includes the eighteen research hypotheses that are to be empirically tested. Chapter 4 describes the methodology employed in terms of the procedure used to collect and analyse the data. The various research findings that are got from the data collected with respect to the eighteen hypotheses are presented in Chapter 5. The analysis and discussion of the core findings of the thesis are described in Chapter 6. The last chapter, Chapter 7 of the thesis, details the theoretical and managerial contributions that come out of the research. Limitations in the present research are also detailed in this chapter as are directions for future research. A simplified outline of the thesis is presented in Table 1.2.

Table 1.2 Simplified Structure of the Thesis

Chapter 1	**Introduction** Scope of the Research Research Problem and Objectives Research Methodology Expected Research Contributions Structure of the Thesis
Chapter 2	**Literature Review** Need for Touch Individual and Product Factors Goal Orientation Impulse Buying Satisfaction Brand Loyalty Outcome Regret
Chapter 3	**Conceptual Framework and Hypotheses** Outline of Conceptualisation Determinants of Consumers' Perceived Knowledge and Need to Evaluate Determinants of Consumers' Choice Goals Determinants of Consumers' Need for Affective and Cognitive Touch in a Retail Environment Consequences of Consumers' Need for Affective and Cognitive Touch in a Retail Environment
Chapter 4	**Research Methodology** Research Design Development of the Survey Instrument Pre Study Data Analysis
Chapter 5	**Data Analysis and Research Findings** Final Sample Used and Profile of the Sample Initial Analysis Main Data Analysis Results of the Hypotheses Tested
Chapter 6	**Discussion** Determinants of Consumers' Perceived Knowledge and Need to Evaluate Determinants of Consumers' Choice Goals Determinants of Consumers' Need for Touch in a Retail Environment Consequences of Consumers' Need for Affective and Cognitive Touch in a Retail Environment
Chapter 7	**Conclusion** Overview of the Thesis Theoretical Contributions Managerial Contributions Research Limitations and Directions for Future Research

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides a literature review on all the constructs used in this research. In all, this chapter consists of nine sections. This section (Section 2.1) provides an outline of the chapter. Section 2.2 provides a literature review on the need for touch and also the two kinds of touch employed by consumers in a retail environment – affective and cognitive. Section 2.3 provides a literature review on the possible early antecedents – in terms of personality, lifestyle traits and consumer knowledge – of consumers' need for affective and cognitive touch in a retail environment. In this section, the literature review on each construct is divided into two parts. First, a broad generic review of research relating to the construct outside the field of consumer research is presented. Second, a short literature review of the construct is provided in relation to consumer behaviour and retailing. Section 2.4 provides a literature review on motivational theory, with emphasis on goal orientation, and more specifically on approach goal orientation and anticipated regret. Sections 2.5 to 2.8 provide a literature review on the possible consequences – in terms of impulse buying, satisfaction, brand loyalty and outcome regret – of consumers' need for affective and cognitive touch in a retail environment. The chapter ends with a summary in Section 2.9.

2.2 Touch

The importance of touch has been recognised for many centuries now. The study on the role of touch started with researchers stressing its importance in human relationships. Siegel (1970) notes that Aristotle believed touch to mediate all types of sense perception, including that of vision.

The important role touch plays right from infancy has been well documented in literature. Spitz and Wolf's (1946) classic work brings to light that for normal, intellectual, emotional as well as social development, touch is the essential and important stimulus.

A few studies within the animal literature too show the importance of touch in emotional and physiological well being (Levine 1960; Denenberg and Whimbey 1963). However, it is non-verbal communication like proxemics and eye contact that receives a lot of attention from social psychologists in the 1960s and 70s. This, Whitcher and Fisher (1979) believes is surprising, given that touch is considered to be the most powerful among non-verbal modalities. Duncan (1969) too has earlier pointed out that touch received least attention in research.

Touch has traditionally been associated with a show of warmth and affection. Montagu (1971) observes that the need for physical contact is universal in nature, though the form of satisfaction derived from touch varies, depending on time and place. Montagu (1971) further suggests that love and touch are indivisible. Mehrabian (1981) connects touch with friendship and warmth. A slightly different meaning for touch is given by Heslin and Alper (1983). They observe that touching implies interpersonal involvement and that the meaning of this involvement can range from ‘affirmation’ to ‘put-down’. Heslin and Alper (1983) note that “if touching a friend is normative in a culture, then doing it is not an invasion of privacy. But if it is not normative, then it may be a gesture of greater bonding or familiarity than the recipient desires”. They also associate touch with involvement and gaining attention.

It was thus in the late 1970s that parameters of touch with human adults started being explored, suggesting both positive (Kleinke 1977) and negative effects (Walker 1971). It is only in the 1980s though, that touch gained prominence in marketing literature. Even till today, most studies on touch in marketing and consumer behaviour have focused on the interpersonal nature of touch – to increase compliance, tips, sales among others.

2.2.1 Need for Touch

The focus of most research on touch during the last three decades of the previous century was interpersonal touch. Early studies in the field of touch include increasing positive behaviour among children and the role of touch in hospitals and doctor-patient relationships. These are detailed further in the following sections.

2.2.1.1 Increasing Positive Behaviour among Children

Tactile stimulation has been found in literature to be a reinforcer of potential significance. Clements and Tracy (1977) find tactile stimulation, when combined with verbal praise, to be a valuable reinforcer in the classroom behaviour of emotionally disturbed boys. They show how tactile stimulation, when combined with verbal praise, results in increased attention to tasks as well as accuracy of performance while solving arithmetic problems. Wheldall, Bevan and Shortall (1986) find in two studies that touch, when employed by teachers, is a reinforcer for appropriate behaviour in class. The changes in mean on-task behaviour, when expressed as a percentage of baseline levels, show an increase from 22% to 77%. The percentage of time children are found to be working increases by nearly 40% when these reinforcements are employed. These experiments, as with those of Clements and Tracy (1977), employ touch with accompanying praise, which the teachers use to increase positive behaviour.

2.2.1.2 Use of Touch in Cure

The role physical touch plays in healing practices has been well documented in literature (Levitan and Johnson 1986; Miller 1997). A comprehensive review on how therapists in traditional verbal psychotherapy use physical touch on their clients is provided by Bonitz (2008), who also gives practical recommendations concerning the use of touch in the current therapeutic setting. Depression, immune system functioning, a state of anxiety, and blood pressure have been shown to reduce upon using massage therapy. In their study, Moyer, Rounds and Hannum (2004) show that a single application of massage therapy reduces heart rate, blood pressure, and a state of anxiety. Their studies find that, though negative mood and pain are not removed through a single application, multiple applications of massage therapy delays the assessment of pain.

2.2.1.3 Touch and Compliance

Interpersonal touch has been shown to significantly increase compliance. Examples of increased compliance include the percentage of people signing a petition, which shows an increase from 55% to 81% when the request is accompanied by a slight touch (Willis and Hamm 1980). In their experiment, Hornik and Eillis (1988) found that touch increased compliance to participate in their interviewing task and also reduced the respondents' perceived burden. Increase in the number of people responding to a street survey and subsequent participation in answering a questionnaire is also attributed to touch by Hornik (1987). Touch has therefore been shown to be positively associated with increasing compliance among respondents.

2.2.2 Need for Touch and Consumer Behaviour

The previous sections detailed the positive benefits of interpersonal touch, when employed among children, patients and respondents. Closer to marketing, interpersonal touch has also been used in the field to increase positive behaviour from consumers. Interpersonal touch has helped increase compliance, increase tips for waiters, increase sales and achieve a better consumer response.

More recent research shows that in addition to interpersonal touch, consumers' need to physically touch products in a retail environment is also an important area, particularly as a positive differentiator between retail and online shopping. The following sections detail previous studies in consumer behaviour relating to interpersonal touch and the consumer's need to physically touch products in a retail environment. The two primary kinds of touch consumers display while touching products in a retail store, namely, affective and cognitive, are described. Also, some disadvantages that retailers may encounter because of consumers touching products in a store are presented.

2.2.2.1 Touch and Consumer Response

Interpersonal touch has also been shown to have a positive effect on consumer response. In an interesting study, Fisher, Rytting and Heslin (1976) conducted an experiment in which they had the clerks in a library return library cards by placing their hands directly on the palms of some students, thus making physical contact. Results showed that those students, whose palms were touched, evaluated the library significantly more favourably than those whose palms were not. Hornik (1992), through a series of three studies, provides evidence of the positive role casual interpersonal touch plays in consumer behaviour. His findings show that tactile stimulation in a number of consumer behaviour situations enhances positive feelings for both the external stimuli as well as the touching source. Consumers touched by requesters tend to comply more when compared with customers in the 'no-touch' conditions.

2.2.2.2 Increased Tips, Buying using Interpersonal Touch

Employing interpersonal touch exclusively as a nonverbal behaviour results in many positive benefits for marketers. Crusco and Wetzel (1984) found significant increases in tipping behaviour when touch was employed by waitresses on customers. Their experiments showed increased tips for waitresses, from both male and female customers, when compared to the ‘no-touch’ condition. Klenike (1977) found that passengers’ compliance rose by 22% when touch was used to ask for a dime. Guéguen and Jacob (2006) carried out experiments in which touch was used by salespersons to increase sales of spices. Results showed that consumers made increased purchases when this method was employed.

2.2.2.3 Why Consumers Like to Physically Touch Products

It is not just interpersonal touch, but also allowing consumers to physically touch products that has been found to be profitable for marketers and retailers. Consumers prefer to touch products before making a purchase decision primarily for the following reasons. First, being able to physically inspect the product, gives consumers greater confidence in the product they are about to purchase. This stems from the fact that they are parting with money in exchange for the product. Consumers therefore want the product to be worth every penny of the money they part with. Second is the usage component, which can be divided into two elements – one, how comfortable consumers are in using the product, and two, how happy they feel about displaying it in public. From a pen, which is used probably a couple of times a day, to a dress worn for almost the whole day, how comfortable consumers are with the product is a matter for consideration. Also important for consumers is not just how comfortable they feel with the product they buy, but how others visualise them – the clothes, shoes and watches they wear – whether a presentable appearance is given. Third, consumers also do not want to go back home thinking they could have made a better choice had they spent more time, money, or both in choosing the right product. All these factors increase consumers' need for touch before making a purchase decision. However, not all products require physical touch to make a purchase decision. A perfume selection is largely based on the sense of smell. A piece of art is bought using visual appeal, how it may look in the showcase, or on the wall. Most products, though, require direct physical contact, i.e. haptic information, to form judgments and increase consumer confidence. It should be noted, however, that consumer confidence in a product is not always through rational or necessary actions. Growing numbers of people kick a car's tyre before purchasing the vehicle, despite the fact that this has almost no practical value.

2.2.2.4 Consumers' Affective and Cognitive Touch in a Retail Environment

There are two broad information processing styles which human beings rely on, affective, cognitive or both. That consumers also rely on these two information styles has been established in literature (Ruiz and Sicilia 2004). This is true in the case of consumers' need for touch in a retail environment as well. Peck and Childers (2003b) show that consumers' differ in their haptic (touch) information processing styles, in that some consumers employ affective touch which others employ cognitive touch when in a retail outlet. Consumers' affective need for touch in a retail environment, as noted by Peck and Childers (2003b), follows an indiscriminate information processing style which is because of an irresistible and compulsive need to physically touch and explore products in a retail store. Consumers' cognitive need for touch in a retail environment, on the other hand, follows a rational and reasoned information processing style, where consumers treat shopping as work (Babin et al. 1994) in order to achieve a salient purchase objective.

Traditionally, consumer's consumption behaviour and attitudes towards brands have been viewed as a uni-dimensional construct. One of the most common scales used to evaluate consumer consumption behaviour and attitudes towards brands was the 'semantic differential' (SD) scale developed by Osgood, Suci and Tannenbaum (1957). This scale measures consumer behaviour and attitudes on only one evaluative dimension. However, the past three decades show growing evidence of consumer behaviour and attitudes being bi-dimensional (Holbrook and Hirschman 1982). It has since been well established in the field of marketing and consumer behaviour that shopping, especially in retail environments, involves two outcomes, hedonic and utilitarian (Babin, Darden and Griffin 1994).

Various terminologies that have been used in literature to describe these two differing outcomes are summarised in Table 2.1. It is from these that consumers' need for affective and cognitive touch is defined in the context of this research.

Table 2.1 Affective and Cognitive Touch in Literature

Affective Need for Touch	Cognitive Need for Touch	Authors
Hedonic	Utilitarian	Holbrook and Hirschman (1982)
‘Buying to shop’	‘Shopping to buy’	Langrehr (1991)
‘Shopping as fun’	‘Shopping as work’	Babin et al. (1994)
Autotelic	Instrumental	Peck and Childers (2003b)

Affective Touch in a Retail Environment: Consumers employing hedonic or affective touch do so in order to obtain sensory and experiential pleasure of product attributes (Batra and Ahtola 1990). Consumers employing affective touch in a retail environment therefore enjoy high levels of fun and self-indulgence. Peck and Childers (2003b) define consumers’ need for touch as a penchant for extracting and utilising information obtained through the haptic system, and in their scale measure two dimensions of consumers’ need for touch in a retail environment. The first dimension, which they call ‘Autotelic’ touch, is hedonic-oriented, referred to in this research as affective in nature. Consumers seeking sensory stimulation, enjoyment, and fun use affective touch in a retail environment. Consumers driven by such an affective need for touch do not necessarily have a salient purchase goal objective. Completion of the task is therefore not a goal, but such consumers find value from the fun and playfulness experienced while touching a product affectively (Holbrook and Hirschman 1982). Consumers displaying affective touch in a retail environment can be defined in the words of Langrehr (1991), who notes that “…the purchase of goods may be incidental to the experience of shopping. People buy so they can shop, not shop so they can buy”.

This research defines consumers' affective need for touch in a retail environment as "a spontaneous and compulsive need to physically touch products as an end to itself with no necessary purchase intention in a retail store but just for fun, fantasy, amusement, enjoyment, excitement, stimulation, variety-seeking and the like".

Cognitive Touch in a Retail Environment: In contrast to consumers who display affective touch in a retail environment, some consumers consider shopping as work with a specific utilitarian value (Hirschman and Holbrook 1982). This type of cognitive touch is termed 'Instrumental' touch by Peck and Childers (2003b). The objective of this touch, in contrast to affective touch, is predominantly outcome-oriented. This involves pre-purchase touch, with a salient purchase objective. An example could be a consumer touching a product to determine its weight, softness and other such properties, with the objective of cognitively evaluating it before making a purchase decision. There are exceptions, however, as shown in the work of Babin et al. (1994), where consumers may employ cognitive touch in a retail environment to get ideas on prices and quality. This is, however, not done for recreation, but rather to collect information, which will be useful at a later date. The objective in cognitive touch throughout, therefore, is to gather enough information to arrive at a final purchase decision.

Drawing upon various research in this field, this research defines cognitive need for touch in a retail environment as "the need to touch and physically evaluate products in a retail store which is goal, outcome driven, in that it is to rationally compare products and achieve a reasoned purchase decision that may be either in the immediate or near future".

2.2.2.5 Touch Not Always Beneficial to Retailers

Recent research has shown, however, that enabling consumers to touch/handle products has some downsides too for the retailers. A ‘theory of consumer contamination’ is proposed by Argo, Dahl and Morales (2006), who have found disgust to be the underlying mechanism of consumers viewing products touched by fellow shoppers. In particular, they examine the effects of three contamination cues – proximity to contact, time elapsed since contact and the number of contact sources in the retail industry (clothing). An important finding is that consumers lower both product evaluations and purchase intentions for the product when they receive a signal that another shopper has previously touched the product. Product placement is another area that retailers need to be mindful about. Care is to be taken to see which types of products are placed next to each other. Specifically considering ‘disgusting’ products that come into contact with other consumer packaged goods, Morales and Fitzsimons (2007) proposed the ‘theory of product contagion’, in which disgusting products are believed to transfer offensive properties through physical contact with other products they touch, thus influencing product evaluations.

2.3 Individual and Product Factors

This research attempts to explore the role personality traits, lifestyle traits and product factors play in consumers’ need for affective and cognitive touch in a retail environment. Personality and lifestyle traits are combined into individual factors and consumers’ perceived knowledge is the product factor considered in this research.

Similar events do not necessarily lead people to react in the same way. It is these differences in reactions that are studied in personality psychology, though the term personality does not have one single definition that is universally accepted. Popularly, Mischel (1999) notes that personality is very often equated to social ability and effectiveness, and, less superficially, that it might be taken to be an individual's most dominant or striking character. There is, however, one common theme that runs through most definitions of personality, which is the distinctive pattern that characterises individuals enduringly. Pervin (1996, p. 414) offers one of the more comprehensive definitions of personality: "Personality is the complex organisation of cognitions, affects, and behaviours that gives direction and pattern (coherence) to a person's life. Like the body, personality consists of both structures and processes, and reflects both nature (genes) and nurture (experience). In addition, personality includes the effects of the past, including memories of the past, as well as constructions of the present and future."

Traditionally, theories about human nature have attracted a lot of attention. Personality theories differ, however, in the degree of emphasis they place on the present and the past, upon what can be directly observed and what cannot and upon the conscious and the unconscious. The first half of the twentieth century gave rise to grand theories of personality, one example being Freud's proposal of the distinctive formation of the nature of personality, characteristically based on his own clinical and personal experience. Many early personality theorists worked as therapists and used their cases to draw broad generalisations about the nature of personality. The second half of the twentieth century witnessed the use of increasingly sophisticated scientific methods in the study of psychology, which made possible the examination of important questions about personality based upon strong scientific evidence. Sections 2.3.1 to 2.3.5 provide a literature review of some of the personality traits that have been shown to influence consumer behaviour, and, therefore, incorporated in this research.

Among individual factors, in addition to personality traits, lifestyle traits have also been shown to influence consumer behaviour in a retail environment (Wong and Carducii 1991; Troisi, Christopher and Marek 2006; Zhu, Wang, Yan and Wu 2009). Section 2.3.6 provides a literature review of the lifestyle trait of money conservatism.

Consumer knowledge has been shown in research to be a powerful determinant of consumer motivation and also to play a role in influencing consumer decision-making style during shopping trips (Wang, Dacko and Gad 2008). Section 2.3.7 provides a literature review on consumer knowledge and gives the reason for focusing on the construct of consumer perceived knowledge in this research.

2.3.1 Intuition

As Sinclair and Ashkanasy (2005) point out, one personality trait that has been largely omitted from scientific inquiry is intuition. This feeling is echoed by Hodgkinson, Langan-Fox & Sadler-Smith (2008), who note that until recently, the theory of intuition has received very little scholarly attention, both within as well as beyond the psychological sciences. This, they claim, is despite the fact that intuition has the potential to 'unify a number of lines of inquiry'.

Part of the reason that intuition has not been widely researched is because it is difficult both to define and to measure and, therefore, has been treated more as a philosophical subject than as a scientific one. The nature of intuition being ephemeral, most empirical research relating to it was originally qualitative in nature, based mainly on self-introspection, in-depth interviews or journal content analysis. The sample sizes of these studies were relatively low, making it hard to arrive at reliable generalisations.

Hodgkinson et al. (2008) state that the Latin word *in-tuir*, which when translated means ‘looking, regarding or knowing from within’, forms the etymological root for the term ‘intuition’. They note that intuition is a multifaceted set of three processes – cognitive, affective and somatic – where there is no obvious imposition of either conscious or rational thought. Sinclair and Ashkanasy (2005) define intuition as a “non-sequential information processing mode, which comprises both cognitive and affective elements, and results in direct knowing without any use of conscious reasoning”.

The understanding of intuitive processing has been enriched by the findings of Dane and Pratt (2007), who bring out four defining qualities. First, they contend that intuition is non-conscious in that it occurs externally to conscious thinking. It is to be noted that though the outcomes of intuition are fully accessible to cognisant thought, it is only how one arrives at them that is not. Second, as the level of the problem in question begins to become more and more unstructured, judgments based on intuition are believed to be a lot more effective than those based on rational analysis. Third, intuition is said to involve a process wherein environmental stimuli are harmonised with a few or several profoundly held non-conscious patterns, facets or classes. Fourth and finally, Dane and Pratt note that as compared to rational decision-making, intuitive processing is much faster in many cases. This saving of time and effort encourages people to make decisions intuitively rather than employ the rational decision-making process, which they believe may not improve the quality of their decisions.

The conventional view regarding the decisional process as employed by humans is that these are usually rational decisions. Glass (2008) notes, for example, that society tends to shoot down intuition as a decision-making method. The obvious choice for most, he observes, would be to employ quantitative methods first, rational approaches next, but not intuition. However, the rational model has come under a lot of scrutiny over the last few decades, both theoretically and empirically (Epstein 1973; Nisbett and Ross 1980; Simon 1957). With specific reference to consumer behaviour, Broniarczyk and Alba (1994) note that inference-making has played a continuing role in explaining and predicting consumer behaviour. Kirkpatrick and Epstein (1992) through three experiments give credence to the 'cognitive-experiential self-theory' (CEST), providing evidence of two conceptual systems, a rational and an experiential system.

In one of the early critiques of intuition, Feigl (1958) argues that intuition is not the finished product but rather a raw material of knowledge and also that the term intuition is extremely ambiguous, and is neither rational nor irrational. Some cognitive psychologists have tried to attribute irrational decision-making to people who employ cognitive shortcuts as a means of solving problems that take place on a day-to-day basis (Fiske and Taylor 1991). The following sections detail the possible reasons, as described in the literature, for lack of accuracy in intuition and why intuitive biases occur. The relationship between intuition and consumer behavior is also assessed.

Accuracy in Intuition and Intuitive Bias: Though people often feel confident that they make the right decision when they trust their instincts, researchers have questioned the validity of this claim. Tversky and Kahneman (1983) in their research on problem solving, find that individuals who rely a great deal on intuition do not form better judgments than those who do not rely on intuition for their decision-making.

Intuitive biases are said to arise because of the interaction of two mental systems, System 1 and 2 (Kahneman 2003; Sloman 1996). System 1 relies on past knowledge, experience, affect to quickly scan through the decision alternatives and arrive at an answer. System 2, on the other hand, takes more time, effort and is resource dependent. Biases, however, can occur despite the existence of System 2 mental state due to cognitive laziness (Cacioppo and Petter 1982) where people are not motivated or cognitive overloaded (Gilbert, Pelham and Krull 1988). Researchers (Epley and Gilovich 2006; Tversky and Kahneman 1974) also put forward another reason for System 1 biases – the lack of capability of System 2 to make corrections. As is evident from the literature cited above, people employ System 1 intuition in normal day-to-day activities that do not require heavy cognitive reasoning. Bringing out another reason that causes intuitive biases to occur, Simmons and Nelson (2006) point out that as intuitions spring to mind quite easily, intuitive biases tend to occur.

2.3.1.1 Intuition and Consumer Behaviour

The first personality trait identified in this research as an early antecedent of consumers' need for touch in a retail environment is that of intuition. There is evidence that consumers make most purchase decisions only once they are in store (Rettie and Brewer 2000), and show intuition to be one of the significant factors affecting consumers' purchase decisions. Broniarczyk and Alba (1994) note that in predicting and explaining consumer behaviour, inference-making has played a continuing role. They outline two reasons for this, first that consumers consider inference-making to be the source of product beliefs, and second, that consumers find intuition to be an attractive substitute for investigation and direct product knowledge.

When shopping, consumers do not rely solely on rational decision-making, evaluating each alternative completely and choosing the best product/item on display. Nevertheless, research on intuition in the field of consumer behaviour is very scant. Consumers who rely greatly on analysis are said to have reduced accuracy of intuitive decision-making. Wilson and Schooler (1991) in their experiments examine the preference of consumers for different brands of jam and various courses offered by colleges. Their results show reduced accuracy of intuitive decision-making power when lengthy instructions or large amounts of information are given to the participants. Conversely, there is also research, as detailed in the sections above, showing that when there is information overload, consumers can take the easy way out by trusting their intuitions instead of having to deliberate long and hard in purchase decisions. Consumers' trust in their intuitive ability to arrive at the right decisions varies, however. Some individuals believe that they are making the best possible choice, while others have lower levels of confidence in their ability to make decisions based on intuition alone.

From the viewpoint of the consumer, therefore, the key question is when to rely on their intuition rather than their powers of reason. Kardes (2006) suggests that when the complexity of the task is believed to be high in terms of the various alternatives available, many attributes to consider and pressure on time, consumers are very likely to simplify choice heuristics. He concludes that, based on learning structure analysis, consumers are to trust their intuitive abilities only on two conditions. The first condition is that consumers should trust their intuition only when feedback of high quality is available. The second condition is that consumers should trust their intuition when it is easy to identify inferential errors. There are some situations, though, when consumers have low quality feedback. If this situation arises in exacting situations, Kardes (2006) suggests that consumers engage in 'comparative hypothesis testing' rather than 'selective hypothesis testing'. This is based on the findings that many a time people tend to highly overrate their learning from experience, and tend to underestimate the knowledge gained from comparison.

2.3.2 Perfectionism

The second personality trait included in this research is that of perfectionism. Perfectionism is a personality trait where individuals constantly strive for flawlessness. The literature has identified that this constant striving for flawlessness emanates primarily from the extremely high standards perfectionists set for themselves in the first place. One of the first researchers to define perfectionism was Hollender (1978). Considering perfectionism as a neglected personality trait, he defines it as “the practice of demanding of oneself or others a higher quality of performance than is required by the situation”. Burns (1980) describes perfectionists as people who set not just high, but unrealistically high standards for themselves. These unrealistically high standards among perfectionists are not fleeting, but a permanent trait. Perfectionists tend to rigidly adhere to these standards. They also go to the extent of defining their opinion of themselves or self-worth in relation to their achievement of these unrealistically high standards. Frost, Marten, Lahart and Rosenblate (1990) describe clearly the critical self-evaluation to which perfectionists subject themselves while aiming to achieve extremely high standards. They define perfectionism as “the setting of excessively high standards for performance accompanied by overly critical self-evaluation”.

From the descriptions above, perfectionism appears to operate at three levels. At the first level, perfectionists set extremely high standards. At the second level, they aspire to achieve these standards, and are content only if those standards are met. One of the means they use to achieve this standard, included in this research, is constant evaluation. Third, they are very self-critical of themselves even when they marginally fall short of achieving their standards.

Hewitt and Fleet (1991) argue that perfectionism is a multidimensional construct comprising personal as well as social components. They describe the following three dimensions of perfectionism.

Self-oriented Perfectionism: In this form of perfectionism, the driving force behind the exceptionally high standards set originates within the individual him/herself and not from outside causes. An ideal state is first desired, and effort is put into achieving the same. In this type of perfectionism, the objective throughout is to fulfil the desired outcome only for oneself, and not for one's family or for society more broadly. Criticising and even punishing oneself are not uncommon in this type of perfectionism. Self-oriented perfectionism has also been called 'personal standards perfectionism' (PSP).

Other-oriented Perfectionism: The belief and thereby expectation about the ability of others forms the next dimension of perfectionism. This type of perfectionist behaviour is said to be interpersonal in nature, and perfectionists expect unusually high standards from what Hewitt and Fleet (1991) describe as 'significant others'. Here, examples of negative outcomes could include blaming others for failure to live up to expectations, a drop in levels of trust and even hostility to others. On a positive note though, it could be associated with attributes such as leadership ability.

Socially Prescribed Perfectionism: This third dimension proposed by Hewitt and Fleet (1991) entails the standards perfectionists set themselves because they feel these are the expectations of 'significant others'. The objective in this type of perfectionism is to please others and win their approval or favour. Here, the important point to note is that the person seeking perfectionism may not share the same goal achievement, but tries to do so in order to meet the higher standards of the 'significant others'. Summarising the downsides of socially prescribed perfectionism, Randles, Flett, Nash, McGregor and Hewitt (2010) note that it is related with anxiety, stress, depression, and that individuals affected by it can view critical or even ambiguous feedback as very negative. The sad part in this is compounded when in spite of others viewing their dealings as successful, socially prescribed perfectionists see their own social behaviour in a pessimistic manner. They develop a feeling that they can never meet these socially prescribed standards, which then tends to evolve into a strong conviction.

It is, however, not always the case that perfectionism takes the three forms above in mutually exclusive ways. Also, literature has categorised a combination of other-oriented perfectionism and socially prescribed perfectionism as 'evaluative concerns perfectionism' (ECP).

Gaudreau and Thompson (2010) contribute to the literature on perfectionism by distinguishing four distinctive subtypes of 'dispositional perfectionism'. The 2 × 2 model of 'dispositional perfectionism' provides empirical evidence that the self and others/social oriented perfectionism co-exist at different levels among individuals. They identify non-perfectionism, pure personal stands perfectionism, pure evaluative concerns perfectionism and mixed perfectionism as the four subtypes of dispositional perfectionism.

Role of Family in Perfectionism: While other-oriented and socially prescribed perfectionism are considered broad types, though the term 'significant others' is mentioned, it was developmental analysis which showed that the cause for perfectionism in individuals was closer to home than previously believed. Developmental analysis on perfectionism shows the great influence of family and loved ones. Research is rich in studies that stress that family environment, more particularly where parents play a significant role, is also a significant factor in the development of perfectionism among individuals (Shafran and Mansell 2001). The term 'perfectionistic parenting' (Randolph and Dykman 1998), has been coined to describe a specific style of bringing up a child. This style of parenting has been shown to develop both positive and negative types of perfectionism.

Studies have quite consistently reported that children who have very high personal standards and are perfectionists in the self-oriented manner are likely to have parents who display strivings to be perfectionists themselves. This phenomenon has been shown to be greater between children and parents of the same gender (Soenens, Elliot, Goossens, Vansteenkiste, Luyten and Duriez 2005). It is to be noted that perfectionism is not only transferred from parents to children but can also result from harsh parenting. In this case, overprotection displayed by parents, not caring for the child, being largely critical and pressuring the child to be perfect, have all been shown to contribute to negative perfectionism.

Negative Perfectionism: Perfectionism has traditionally been associated with psychopathology, where the psychodynamic theory linked it with a disordered and even neurotic personality (Horney 1951). Further evidence establishing perfectionism with negative consequences was given when both clinical as well as non-clinical populations were studied. Patients with high levels of perfectionism were diagnosed with obsessive-compulsive disorder (Rasmussen and Eisen 1992) among other disorders. Studies using non-clinical populations (Flett, Hewitt and Dyck 1989) show perfectionism to be related to high levels of distress among others.

Positive Perfectionism: The above section may appear to present perfectionists as those who can never be satisfied with their outcomes and as people who constantly keep raising the bar to achieve something impossible. While literature has devoted much space to this type of perfectionism, going on to suggest that perfectionists can by no means do enough to obtain satisfaction (Slade and Owens 1998), the converse is also true. For example, Hamachek (1978) suggests that perfectionism can be 'normal', which is a great departure from established literature in which the trait is invariably equated with negative emotions, feelings and consequences. Slade (1982) goes further and makes the case that perfectionists also can be satisfied. These studies show that striving for perfectionism can lead to positive outcomes as well.

2.3.2.1 Perfectionism and Consumer Behaviour

There is not much literature on the role perfectionism plays in the context of consumer decision-making. However, as Stoeber and Otto (2006) point out, though literature about perfectionism is predominantly about its consequences for health, this personality trait can affect one's strivings in all areas of life. They write about perfectionistic strivings, which in this study would include trying to make the best purchase in a retail setting. Among the few other studies investigating the role of perfectionism in consumer behaviour, Kopalle and Lehmann (2001) show that perfectionists have high expectations. Schwartz (2004) explains that perfectionists meet these high expectations by constantly striving to learn more. To achieve perfectionism, perfectionist consumers strive to make informed choices by evaluating all the options that are present. Perfectionists, this research argues, would display similar tendencies while looking to purchase a product from a store, wanting the very best. This could take the form where such consumers expect the very best from the product, the very best from themselves in order to select the best available product, or a combination of both.

2.3.3 Predisposition towards Maximisation

The third personality trait included in this research is that of consumers' predisposition towards maximisation. Simon (1955, 1956, 1957), about half a century ago, can be said to have introduced the concepts of 'maximizing' and 'satisficing'. Through a series of studies he brought out their differences as choice-making strategies. Specifically, Simon (1955, 1956) coined the word 'satisfice'. To satisfice was to search only till reaching a 'good enough' alternative. To maximise, on the other hand, meant to seek the best available alternative, after an exhaustive search. Simon notes that to achieve the goal of maximisation is virtually impossible in real life. This he attributes to two reasons: first, the intricacy of the human environment and second, the constraints in human information processing.

Maximisers and Satisficers: Iyengar, Wells and Schwartz (2006), through a study about students choosing jobs, find that though students who have high maximising tendencies secure jobs with significantly higher starting salaries, it is satisficers who are happier with the jobs they obtain, even though their salary is lower than that earned by maximisers. Schwartz, Ward, Monterosso, Lyubomirsky, White and Lehman (2002) do not find any significant difference in the quantitative and verbal SAT scores of maximisers and satisficers. Iyengar et al. (2006), however, report that maximisers' starting salaries are higher than satisficers by 20%. In their study, in which time is a constraint for consumers, Chowdhury, Ratneshwar and Mohanty (2009) find that maximisers, when compared to satisficers, engage in greater pre-purchase browsing behaviour and feel more decision-time pressure. Implications of this include maximisers being more prone to returning goods for exchange when initially they had very little time to choose the product.

Schwartz et al. (2002) have expanded on Simon's seminal works (1955, 1956, 1957) and developed the maximisation scale in order to measure an individual's predisposition towards maximisation. They find that maximisers have low satisfaction levels on consumer decisions made. This is in spite of the facts that maximisers seek more product information before making decisions, and engage in a lot of product comparison. This finding is attributed to the fact that maximisers seek the best achievable result in comparison to satisficers who only desire a result good enough to meet some criterion. To want the best option, as maximisers do, according to Schwartz et al. (2002) may not be bad for well being as such, with a prime example being a person who is on the look out for the best health care option.

How Maximisers Choose Among Alternatives: Maximisers have the passion to want only the very best in the first place. The underlying reason for this is that they have very high standards. Maximisers, therefore, set high standards, never settling for second best. To achieve the goal of never settling for second best, maximisers are constantly on the lookout for a better alternative than the one currently available. Even if they are satisfied with the current option, they search for other available options, hoping there will be something better than the one they have in hand.

2.3.3.1 Predisposition towards Maximisation and Consumer Behaviour

Maximisation has been primarily a term used in economics, seeking to explain the desire of organisations and individuals to increase their monetary riches. Peterson (1981) finds that banks as a whole behave as profit maximisers. Ahtiala (2005), also studying banks, notes that banks' lending decisions are wholly with the motive of profit maximisation. This is equally true for any commercial business, which has to be financially viable to be competitive. One of the ways organisations make profit is through sales maximisation, a term used by Williamson (1966). Other terms that have been used by economists include wealth maximisers (Bong-Soo 1997), expenditure maximisers (Romer and Rosenthal 1979), present-value maximisers (Rubinstein 1978), and income maximisation (Weinberg 1978).

Consumers on their part, seek to maximise the value primarily for the money they part with while purchasing a product. Economists have used the term utility maximisation to represent this behaviour for decades. Besanko and Winston (1990) characterise consumers as inter-temporal utility maximisers. Squalli (2005) researches optimal fares consumers are willing to pay on airline tickets when not sure about the airline safety, and terms consumers as expected utility maximisers. Utility maximisation is not always used as a positive term in research. Biglaiser and Ma (2007) categorise some physicians as moonlighters, citing a possible decrease in quality treatment and calling for regulation to improve consumer welfare.

2.3.4 Self-monitoring

One of the earliest and most enduring philosophical and psychological considerations of human nature has been the concept of self. The ways people monitor themselves in public vary a great deal. Snyder (1987), who introduces to personality and social psychology the term 'monitor', defines it as to "observe, regulate and control". 'Self-monitoring theory' states that people in social settings draw on two key information sources. First they acquire information regarding interpersonal and situational specification of appropriateness of behaviour, and second, they acquire information about inner dispositions, feelings and other personal characteristics. Drawing on these two key sources of information, 'self-monitoring theory' states that, in a social setting, people attempt to actively display a pattern of behaviour that is considered appropriate to that particular context. As in all cases, people rely on each information source to a different extent.

2.3.4.1 Self-monitoring and Consumer Behaviour

Consumer behaviour in a retail setting is affected by the presence of employees in the store and fellow shoppers. Self-monitoring is an important personality trait which affects consumer behaviour in a retail setting, and hence is included in this study as the fourth personality trait affecting consumers' need for touch in a retail environment. The fundamental postulate of 'self-monitoring theory' when applied to consumer behaviour is that consumers differ in their extent to which they are able to engage and do engage in meaningful control. Consumers, in order not to be seen differently and out of fear that their actions might not appear appropriate to fellow shoppers, tend to change their behaviour. The desire can also be seen as not only to avoid embarrassment but conversely to impress others. Deciphering cues in the shopping environment is an attribute, which consumers with high self-monitoring tendencies possess. It is only once these cues are noticed that behaviour can be changed in order to suit the surroundings. It is to be noted, however, that consumers with a high level of self-monitoring tend to change their behaviour to suit the situation only where they feel fellow shoppers or employees in the shop will not approve of what they are doing. Research has shown that those low in self-monitoring behaviour are not unaware of their action implications, but that they simply believe it is not necessary to change their behaviour because of this (Jawahar 2001).

During their shopping experience, consumers are in contact with fellow shoppers and employees in the store. Some consumers do not let the surroundings affect them when making their purchases, but others are affected by those around them to varying degrees. Consumers high on self-monitoring are very sensitive to cues regarding the appropriateness of their behaviour and resort to regulating and controlling their actions when in the presence of others. Consumers who are not high on self-monitoring are guided by their inner dispositions and attitudes, and are comparatively less attentive to situational appropriateness when in the presence of others. This distinction can be traced back to the work of Allport (1961), who makes a distinction between coping and expressive behaviour. Coping behaviour is that which is controlled on purpose and performed very consciously, whereas expressive behaviour is said to be spontaneously emitted without any inhibitions.

In short, high self-monitors, in a shopping situation, are extremely responsive to interpersonal as well as social cues to appropriateness of behaviour. In contrast, low self-monitors, who act on information they receive from pertinent inner sources, possess considerable consistency across not only varying situations but also over time. Given the description above, it is clear that consumers who are high in self-monitoring put in a great effort to read and understand fellow shoppers in search of information in order to enable them to conduct themselves in a particular manner.

As seen from the description above, consumers high on self-monitoring choose behaviours to fit present situations, creating contradictions and gaps between their attitudes and actions. However, some research has found a positive side to this in that consumers with high self-monitoring orientation may have greater adaptability and show more flexibility, which can help them to cope with changing situations in everyday life. Consumers low in self-monitoring, though, do not exhibit any contradiction between their attitudes and their actions, and can be said to attain value congruence between what they actually believe and what they do when in the presence of others.

2.3.5 Need to Evaluate

Individuals evaluate a variety of people and objects on a day-to-day basis. Stressing how important evaluation is to people, Markus and Zajonc (1985) note that "it is not possible to view a social object or a social act without at the same time making an assessment on dimensions closely corresponding to good/bad, pleasant/unpleasant, high/low etc." Jarvis and Petty (1996) define evaluation as "the assessment of the positive and/or negative qualities of an object", and consider it to be "among the most pervasive and dominant human responses".

Difference between Need for Cognition and Need to Evaluate: Individuals who like to think and also enjoy the process of thinking are said to be cognitively inclined. Individuals with a high need for cognition therefore exert comparatively greater cognitive effort, and tend to persevere with cognitive tasks for longer periods of time than individuals with a low need for cognition. The need for cognition scale, which measures this difference in need for cognition, developed by Cacioppo and Petty (1982), has been widely used in many studies. Another widely used scale to measure cognition is the Cognitive Style Index developed by Allinson and Hayes (1996).

Individuals with a higher need to evaluate are said to chronically engage in evaluation from the experiences they have and the information they receive. Those low in the need for evaluation have been shown to be content with simply experiencing life, while those high in the need for evaluation enjoy assessing the benefits and losses of what they do and observe on a frequent basis (Bizer, Krosnick, Petty, Rucker and Wheeler 2002). Need for cognition and evaluation are distinctly different concepts, the main difference being that evaluation can occur in a thoughtful or non-thoughtful manner, whereas it is only the former in cognition. Empirical evidence for the same is drawn from the work of Petty and Cacioppo (1986) who show that attitudes at times can be formed because of the attractiveness of the communicator, and not necessarily by the message being persuasive.

2.3.5.1 Need to Evaluate and Consumer Behaviour

Fazio (2000) notes that individuals, in their daily lives, encounter a multitude of objects. Consumers, too, face many choices every time they shop. There is constant bombardment of information, which forces them to make many decisions as to which items to approach and which not to ignore. Almost every shopping event involves consumers making a continuous cycle of choices based on their interpretations and evaluation of objects. These numerous choices can be quite astoundingly burdensome to some consumers. It is easy to imagine a consumer who is confused or fed up with the need to assess, weighing the pros and cons of the various alternatives available on each product. Consumers are adaptive in nature, and, as in other areas of life, learn from the memory of past experiences. While prior consumer knowledge is helpful, it represents only the first step towards consumers successfully coping with a variety of stimuli that impinge on them. Consumers must retrieve the relevant aspects of the information stored, then consider the implications and finally integrate those implications into a final judgment. Consumers therefore categorise items into likes and dislikes along an evaluative dimension.

Literature shows that consumers who have a high need to evaluate tend to depend more on their own judgments and are less influenced by advertisements and other outside influences. Holbrook (2006), studying the need to evaluate in the field of public opinion has found that the need to evaluate had a positive effect on information acquisition in presidential campaigns. Research closer to marketing suggests that consumers with a high need to evaluate may be put off by specific advertisements and that these advertisements may indeed have a negative effect on such consumers. Fennis and Bakker (2001) have demonstrated in various studies that after exposure to a number of widely disliked ads, those with high a need to evaluate were more irritated than others. Moreover, their studies show that even when neutral ads and brands were exposed, consumers with a high need to evaluate were more negatively affected than those with a lower need to evaluate. Individuals with a high need to evaluate, therefore, behave like those with a high need for cognition when they form evaluations thoughtfully, but behave as individuals with a low need for cognition when they form evaluations superficially. Research in the field of direct media shows that the need to evaluate moderates the relationship between the need for cognition and direct media. The work of Vieira (2009) shows that buying intentions through direct media are high for consumers low in the need for cognition but high in the need to evaluate. While the relationship between consumers' need for cognition and their need for cognitive touch is understood, the relationship between consumers' need to evaluate and their need for cognitive touch has not been studied. Need to evaluate is thus the fifth personality trait chosen in this study.

2.3.6 Money Conservatism

Money conservatism is a lifestyle trait where individuals are very careful in parting with their money in order to purchase a product or spend for a service. There has been research into spending habits of individuals and other constructs. The following paragraphs in this section will review literature on money conservatism in relation to materialism and happiness.

Money Conservatism and Materialism: Tatzel (2002) classified people into four groups of based on their attitudes towards money and materialism. The first category comprised those who spend a lot of money, otherwise known as ‘big spenders’, and are highly materialistic. These big spenders enjoy the process of spending money and like to own many possessions. More often than not, they also perceive price to be a signifier of quality. The opposite of ‘big spenders’ fall in the second category, termed ‘bargain hunters’. These are people who are very frugal with their purchases. Bargain seekers do not necessarily associate price with the quality of the product. The outward disposition plays a significant part in the life of the person loose with money and materialistic, but does not for the bargain seeker. All those who are tight with money need not be bargain seekers, but can be materialistic as well. In a sense, this third type of people can be described as the best of both options, not losing too much money but at the same time enjoying the good things. The fourth and last category of people identified by Tatzel (2002) are those who are loose with money but not materialistic.

Money Conservatism and Happiness: Many people, especially in today’s materialistic world, chase money as a goal in life, though only a few achieve great wealth. Is there a relation between money and well being? Research does show a correlation as high as 0.6 to 0.7 between income and well being (Diener 2000). Developed countries have also been shown to have happier citizens in comparison with other countries which are not as developed (Schyns 1998). Research shows, however, that this is true only until a basic threshold of wealth is achieved. With rises in wealth beyond the threshold, happiness does not increase correspondingly.

2.3.6.1 Money Conservatism and Consumer Behaviour

Consumer behaviour is influenced not only by personality traits but also by lifestyle traits. The following paragraphs look at lifestyle traits – like being frugal, tightwad, spendthrift – all of which are closely related to the lifestyle trait of money conservatism used in this research. The link between money conservatism and sensation seeking is also detailed in this section.

Frugality: A construct that closely relates to money conservatism is that of frugality. Often frugality is conceived as being miserly, the main driving force being to accumulate and hoard money for its own sake. Frugality, particularly in consumer behaviour, is not considered a personality trait; rather it is considered a lifestyle trait. Consumers displaying frugality show a disciplined acquisition of products and services. Frugality does involve sacrificing to a certain extent. This sacrifice, however, is considered short-term by those exhibiting this trait in that they are industrious by using resourcefully what they currently own and what is available for use.

Lastovicka, Bettencourt, Hughner and Kuntze (1999) have conducted a series of six studies to understand the phenomenon of frugality. They find that those who are frugal are comparatively less susceptible to interpersonal influence, are less materialistic and have lower compulsive buying tendencies. Frugal persons, in their study, are found to be very conscious of price and value. They go on to define frugality as "a unidimensional consumer lifestyle trait characterised by the degree to which consumers are both restrained in acquiring and in resourcefully using economic goods and services to achieve longer-term goals".

Tightwads and Spendthrifts: Other constructs related to money conservatism are those of tightwads and spendthrifts. The level of pain consumers experience spending money purchasing goods was the basis for Rick, Cryder and Loewensteins' (2008) division of consumers into tightwads and spendthrifts. They found that tightwads are very careful with their money and do not part with it easily to purchase a product. Also, tightwads tend to purchase only products they need. Spendthrifts on the other hand exhibit the opposite characteristic and, in the consumer behaviour context, easily part with their money to purchase a product they like but do not necessarily need. Rick et al. (2008) show that tightwads anticipate pain in paying while spendthrifts do not experience much pain in paying, resulting in their contrasting behaviours.

Money Conservatism and Sensation Seeking: The primary variable in this research is consumers' need for touch in a retail environment. This research, therefore, explores the possibility of money conservatism being a possible antecedent of consumers' need for touch in a retail environment. There is evidence in the literature showing a link between economic variables and consumers' openness to experience and sensation seeking. For example, Wong and Carducii (1991) show that there is a relationship between sensation seeking and everyday financial decisions, such as personal banking activities. Their studies indicate that high sensation seekers exhibit in their everyday financial decisions a greater inclination to take risks when compared to low sensation seekers. Troisi et al. (2006) studying the effects of both materialism and money conservation, find that both are predictive of impulse buying, sensation seeking and also openness to experience.

2.3.7 Consumer Knowledge

Consumer behaviour, being an interdisciplinary field of study, finds itself at times trapped between the two approaches to consumer knowledge. Lawson (2002) notes that one approach is that of social scientists and psychologists who try to draw the field of knowledge development in line with rapidly advancing science. The other approach, notes the author, is that of practicing marketers who are not all that into the pure science of consumer knowledge but are more into questions that have managerial implications. More academicians in marketing than researchers in social sciences or psychology have taken interest in consumer knowledge (Simonson, Carmon, Dhar, Drolet and Nowlis 2001). The above is said to be the reason why an applied approach has been taken by studies in consumer knowledge rather than one of pure science. Lawson (2002) observes that it is on the question of consumer knowledge within the body of study of consumer behaviour that basic science has been neglected most.

Cognitive scientists face an ongoing challenge in understanding both the content and structure of human knowledge. In the field of consumer behaviour, researchers have been interested in representations consumers make in product categories, more specifically, brands (Lawson 1998). A study of consumer knowledge requires a clear understanding of the two types of knowledge consumers possess. These are familiarity and expertise. Alba and Hutchinson (2000) bring out the difference between these two concepts by defining familiarity as accumulative in nature from any encounter with product(s), whereas expertise refers to increased ability and is measured with respect to a performance condition. They outline the benefits consumers can have if they have expertise in choosing and purchasing products. Accuracy, the authors claim, is dependent on expertise. Another important factor identified is the confidence consumers can have when they have high expertise.

2.3.7.1 Types of Consumer Knowledge

Park et al. (1994) divide consumer knowledge broadly into two categories – objective and subjective. Objective knowledge is defined as accurate product class information that is stored in the memory long-term. The second type of knowledge is defined as subjective knowledge, or otherwise known as knowledge that is self-assessed. This self-assessed or subjective knowledge is consumers' perception of how much or what they know regarding a product class. The key word while understanding subjective knowledge is 'perception'; it is what consumers claim to know, which at times can be different from what they actually know.

There is some relation between the two forms of consumer knowledge – objective and subjective. Self-assessed or subjective knowledge has in fact at times been viewed as a proxy for objective knowledge. However, there exists a clear difference between the two kinds of consumer knowledge. Subjective knowledge to an extent tells us about the confidence a consumer has in his/her knowledge, whereas objective knowledge gives a clear indication of what information is actually stored and recollected.

2.3.7.2 Relationship between Prior Consumer Knowledge and Information Search

Research has found contrasting relationships between the two constructs of past consumer knowledge and information searching behaviour. Literature on the relationship between prior consumer knowledge and information searching can be divided into four types, each yielding a different relationship between the constructs. The first (Moore and Lehmann 1980) is where prior consumer knowledge is said to have a negative relationship with information search. The second field of research says the exact opposite in that there is a positive relationship between prior consumer knowledge and prior experience and information searching (Jacoby, Chestnut and Fischer 1978). The third body of research in this field (Johnson and Russo 1984) says that it is an inverted-U shape relationship that exists between prior consumer knowledge and information searching. Notwithstanding the above relationships found between these constructs, studies such as those of Claxton, Fry and Portis (1974), find that there exists no relationship at all between prior consumer knowledge and information searching. These varying results are discussed in a little more detail below.

As pointed out above, some research has shown that there exists a negative correlation between prior consumer knowledge and information searching. Brucks (1985) outlines two possible explanations for this. First, because consumers already have the information they need about the product class, they do not engage in any external search to get additional information, as they feel the information they currently have is enough for them to make the right decision. Also important to note in this point is that they have information about the alternatives that are available, which gives an extra impetus for an additional search not to be carried out. A second explanation given for the negative correlation between past knowledge and information searching is the experience gained through past knowledge. Consumers, who have enough experience, it is claimed, conduct abbreviated and much more efficient searches, as they know the attributes that distinguish brands. This results in less time spent searching for information.

There is also other research that argues the opposite to be true, in that prior consumer knowledge actually does encourage information searching. The reasoning given is that processing new information is easier for those who have prior consumer knowledge than for those who do not have much prior consumer knowledge. The formulation of new questions, these studies argue, is possible, which in turn leads to greater information searching. These studies conclude that there exists a positive correlation between prior consumer knowledge and information searching.

The third significant relationship that was found to exist is the inverted-U relationship, which particularly appeals to Brucks (1985), as it aims to provide a suitable explanation in the light of the above two varying results – one indicating positive and the other negative relationship between prior consumer knowledge and information search. At low-to-medium intensities of knowledge, the inverted-U relationship says that there is a positive relationship between prior consumer knowledge and information searching, whereas at medium-to-high levels of knowledge, the relationship is negative between prior consumer knowledge and information search.

Past research (Claxton et al. 1974) has also shown that there exists no relationship between prior consumer knowledge and information searching behaviour. This leaves us with four types of results obtained in the study of the relationship between these two constructs. It is only fair to state that the relationship between prior consumer knowledge and information searching behaviour has been largely inconsistent.

Consumer knowledge in this research as an antecedent of consumers' need for touch in a retail environment is limited to perceived knowledge, mainly because consumers' actions are more often based on how they perceive things to be (Alba and Hutchinson 2000).

2.4 Goal Orientation

Consumers' goal orientation has been found to be an important indicator of behaviour, especially in making purchasing decisions and is therefore included in this study as a possible antecedent of consumers' need for touch in a retail environment. Studies on goal orientation trace its roots to literature on early motivational concepts. With specific respect to consumer behaviour in a retail environment, this research summarises literature on motivation and approach and avoidance goal orientations.

2.4.1 Early Motivation Concepts

The study of motivation has undergone constant developmental process from relatively simple conceptualisations to an increasingly sophisticated and empirically sound field of research. The philosophical origins of motivation can be traced to Socrates, Plato and Aristotle. Plato suggests that motivation flowed from a tripartite and hierarchically arranged model (Reeve 2009). At the basic level motivation is set to arise due to bodily appetites and desires. Socially acceptable standards give rise to the second level, with a motivation to be accepted as well as respected in a society, by conforming to norms and standards laid out. The calculating aspect is reflected at the highest level of the pyramid with decision-making ability through reasoning and choosing. This tripartite distinction was hundreds of years later reduced to the passions of the body and reasons of the mind to reflect dualism. The body was said to reflect all that was irrational and biological, while the mind was said to reflect all that was rational and spiritual. Following the tripartite and the dual systems, interest shifted to the active and passive aspects of motivation. The mind was said to control the body, and thereby its desires. This was a very important distinction, classing the body as a mechanical and a passive agent and the will as an immaterial and a motivationally active agent. Later on, the 'grand theories' of will, instinct and drive, attempted to explain the entire scope of motivation, which were subsequently followed by 'mini theories' that attempted to explain special motivational phenomena. 'Flow theory', 'learned helplessness theory', 'self-schemas theory' and 'reactance theory' are some examples of mini-theories. A new paradigm has also developed in which behaviour is said to be energised and directed by a host of co-acting influences, and not one grand cause.

The study of motivation, according to Atkinson (1964), has to do with investigation of the numerous aspects that incite and guide an individual's actions. Atkinson notes that while historically the study of motivation has been linked to the study of behaviour changes as the outcome of learning (training), it can be distinguished from this ground of interest and also from the study of perception. Motivation thus concerns the processes that give behaviour both energy and direction. It has been claimed that all learning models proposed thus far, whether explicitly or implicitly, incorporate some theory of motivation (Lages 2007).

Goal orientation literature dates back more than two decades. The concept was introduced by Dweck and his colleagues (Dweck 1986; Dweck and Leggett 1988) who conducted research in academic settings with children. The roots of goal orientation studies are, therefore, in the fields of child development and educational psychology.

The expansion of the study of goal orientation into the field of management from that of educational psychology started in the 1990s (VandeWalle and Cummings 1997; Brett and VadeWalle 1999). Within a marketing context, though, very few studies have analysed goal orientation and those which have, have been in the context of sales (Lages 2007).

2.4.2 Goal Orientation Theory

An overview of the extant literature on the 'theory of goal orientation' is provided in this section. In particular, the measures employed to assess goal orientation are identified. The overall objective is to gain a broad appreciation of goal orientation theory, its sub-dimensions and the significance of approach and avoidance goal orientations as important motivation states of consumers influencing their behaviour in a retail environment.

2.4.3 Approach and Avoidance Tendencies

Reeve (2009) notes that generally people presuppose that it is better to be motivated than unmotivated. Two questions asked most frequently in motivation, he writes, are: "How can I motivate myself?" and "How can I motivate another person?" which show that motivation is clearly a state people want to achieve, not just for themselves but also for others.

In actuality though, not all motivation states are welcome. While approach-oriented motivational states like achievement motivation, self-actualisation, hope, joy, interest, expectation and desire are welcomed, others like fear, frustration are not, as they ready one to keep away from dislike inducing, frightening and anxiety-provoking conditions. It is thus clear that there are several objects of desire. Many of these are liked for the satisfaction that they give, while others are not liked for the evident unpleasantness that comes with them. Avoidance of failure can be pictured as a situation when there is shame and embarrassment in the event of a failure. It is when this feeling is suspected by a person that (s)he tends to avoid that situation from occurring. Avoidance goal orientation can arise because of past personal experience, the experience of others or just the fear of an action for which the outcome is unknown. It has also been argued that though with every task there is the expectation of a positive outcome, there also exists the possibility that the outcome might not be as expected, and this is true the other way round too. Human beings, and therefore consumers, in approach-oriented contexts of study are enquiring, inherently motivated to sensation seeking, with goals and plans to tackle challenges. This is an approach orientation of motivation focusing on desired goals and results. The opposite is also true, as Elliot, Sheldon and Church (1997) point out, in that people feel stress, frustration, insecurity, pressure, fear, pain, depression, and come across circumstances with which they are not comfortable and of which they wish to be free of. This is the avoidance orientation to motivation which focuses on goals not desired and entails avoiding and staying clear of undesired results. Carver (2006) notes that to adapt optimally, human beings need to and do have a motivational list that has as many avoidance-based motives as positive, approach-based motives.

As seen from the discussion above, a complete understanding of the complex nature of motivation thus includes both the approach and avoidance dimensions.

2.4.4 Anticipated Regret and When Consumers Anticipate Regret

Consumers anticipate regret in a variety of circumstances. Zeelenberg (1999) provides a review of the situations in which people may anticipate regret. In this section an attempt is made to relate to situations in which consumers may anticipate regret before making a purchase decision.

With an ever increasing number of options available for consumers to choose from during a shopping trip, making purchase decisions has become ever more difficult.

The decision can be made still more difficult when two or more options have nearly the same attractiveness. Under this situation, consumers will worry more about the purchase decisions they take. They will consequently compare the two or more equal alternatives very carefully because they anticipate regret they might feel at a later date should the option they reject prove to be superior to the one they choose.

The second reason why consumers may anticipate regret is because clear knowledge of the outcomes of the purchase decisions is not available. When the benefits of purchasing certain products are clear, no anticipated regret is foreseen. However, as the purchase benefits keep becoming unclear, anticipated regret is expected to increase. An example for this can be products which are new on the market, and about which, as a result, there exists little feedback on function and performance.

A closely related phenomenon to the above where anticipated regret can occur is when consumers are choosing between a conventional product and a new alternative. The conventional product is generally perceived to be the safe option while the new alternative is generally perceived as the riskier option. The latter therefore requires a greater initiative than the former on the part of the consumer. Also, with the conventional product, the outcome is clear because of personal use, or because of the popularity in the market. The new product, especially when not tested by other consumers or the decision-maker, causes most consumers to think longer than they would do before purchasing the conventional product. In a situation such as this, when consumers have to choose between a conventional product and a new product, it is typical for anticipated regret to occur. Consumers, therefore, anticipate regret more before purchasing a new product than when purchasing a conventional product.

Anticipated regret need not occur only when choosing between two comparable brands or products. It can also occur when deciding between two significant attributes in a single brand or product. An example for this could be choosing between two colours of the same brand.

Drawing upon research on intertemporal choice (Loewenstein 1992), it is known that people making decisions have an inclination to give more emphasis to short term than long term outcomes. In other words, 'intertemporal choice theory' suggests that people are generally more worried if a decision will affect them in the short term than in the long term. Extending the same approach to consumer behaviour, it can be posited that when purchase decisions are either not known within a short span of time or are realised quickly enough, consumers might tend to play down the possible regret the purchase decision can cause. However, if in the short term, consumers can foresee the product not suiting their needs, anticipated regret tends to be higher.

The more important the decision, the greater is the anticipated regret. This is because as decisions become more important, the intensity of regret if the decision turns out to be wrong increases. In a typical shopping experience, a product bought for, say, £1 will not be regretted if it turns out bad. However, the intensity of regret will be much greater if a product purchased for £100 turns out to be bad or not useful. In between the range of £1 and £100 when a purchase decision turns out wrong, it can be said that greater the price of the product, greater the post purchase regret. From this example, 'rational process theory' would suggest that before a product of higher price is purchased, consumers would anticipate regret in case the purchase decision turns out to be bad.

The previous example showed how anticipated regret increased with the price of the product. However, it is not price of the product and the product not being useful to the consumer him/herself that can cause anticipated regret. Social reference groups have been shown to play a vital role in decisions made by people in their day-to-day lives. Janis and Mann (1997) in their work specifically link anticipation of regret to social factors. When the outcome of purchasing a product is important socially, consumers will anticipate regret and try to make the best purchase decision. This finding may be truer in collectivist societies than individualistic societies. Consumers in collectivist societies need to think more about the acceptance of the product they purchase by family, friends and society in general. This in turn may put more pressure on them while making purchases in the form of anticipated regret.

Zeelenberg (1999) discusses the role of significant persons in influencing anticipated regret. He notes that when significant persons in the social network of the decision-maker are not expecting a decision to be made soon, the decision-maker tends to take his/her time before making a decision. This is also true when the significant persons in the social network expect the decision-maker to delay making decisions till all available options have been evaluated carefully and in detail. An example for the latter would be when a decision-maker is shopping with a significant person who always evaluates all options before making a purchase decision. In this scenario, the decision-maker also tends to evaluate all options, foreseeing anticipated regret before making the purchase decision.

Anticipated regret can also increase for consumers when it is difficult to undo a purchase decision. This argument is supported by the studies of McAllister, Mitchel and Beach (1979), who show that when results are perceived to be irreversible, people engage in a more detailed and involved decision-making process. In the retail context, shops which do not have a return policy or products that cannot be returned, may force consumers to be more careful before making purchase decisions. This is evidence of consumers anticipating future regret and thereby modifying their decision-making process.

2.4.4.1 Anticipated Regret Due to Change in Significance

The 'means-end theory' in the context of consumer behaviour suggests, as pointed out by Lee and Cottee (2009), that consumers have a propensity to evaluate products on the basis of the ability of that product to fulfil the desired purpose. To decide whether the purchase is worthwhile, consumers look to see to what level the purchase meets the initial expectations. These initial expectations are, however, subject to change over a period of time, and if the expectations rise, consumers start to feel that the product is not serving the purpose and that another product or item should have been purchased in the first place. This kind of regret is witnessed when the same product is evaluated at two or more different time periods, whereas regret due to selection of foregone alternatives compares two different products or items. The greater the difference in utility experienced by consumers of one product over two periods of time, the greater is the regret they experience. An example for this kind of regret can be preparing a meal for guests, only for them not being able to make it that day.

2.4.4.2 Anticipated Regret Due to Under-consideration

Consumers experiencing regret for this reason become sceptical of the heuristic process that led them to the purchase decision in the first place. While regret because of unknown foregone alternatives and regret due to under-consideration seem similar, there is a fundamental underlying difference between the two. Reflecting on unknown foregone alternatives obliges the consumer to think of hypothetical products that could have been purchased instead of the one actually purchased. However, reflecting on how consumers under-considered their purchases necessitates rethinking the buying process itself and not just choosing an alternative product. Simply put, regret arising because of under-considerations is regretting the process itself by which consumers arrived at the decision. This form of regret can arise because consumers feel they could have put in more thought and effort or acquired more information before purchasing the product. Regret due to under-consideration can also be further divided into two categories. As Pieters and Zeelenberg (2005) point out, regret can be experienced if individuals have failed to execute the decision-making process as originally intended. On the other hand, regret can also be experienced if on hindsight, there is a belief that the desired quantity and/or desired quality of information that was needed to make the correct decision was lacking.

2.5 Impulse Buying

Impulse buying has been an important area for researchers in retailing and consumer behaviour for over 60 years now (Clover 1950) and in this research is the first hypothesised consequence of consumers' need for touch in a retail environment.

Impulse buying has been defined in different ways by different researchers. Piron (1991) provides a comprehensive review of the various definitions used to describe impulse purchasing in literature. The first definition of impulse buying came from the fact that retailers knew consumers often indulge in purchasing goods they have no intention of buying before entering their stores. Early researchers equated impulse purchasing with that of unplanned purchasing (West 1951). Research was conducted primarily with the interests of managers in mind. Since the research was for the retailer's benefit, the main focus was on the purchase and not on the consumer. The tendency during this early period was to differentiate between consumers' intended versus their actual purchases. About a decade later, Nesbitt (1959) introduced the interesting concept in that it is not just impulsive shoppers who make purchase decisions once in a retail outlet, but also smart shoppers. These smart shoppers, Nesbitt (1959) argues, search for and take advantage of promotions offered in store and, therefore, do not plan purchases beforehand. This enables smart shoppers to maximise buying power.

Rook (1987) provides a comprehensive definition of impulse purchase. He states that: "Impulse buying occurs when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately. The impulse to buy is hedonically complex and may stimulate emotional conflict. Also, impulse buying is prone to occur with diminished regard for its consequences."

2.5.1 Kinds of Impulse Buying

The work of Stern (1962) greatly increased knowledge regarding the phenomenon of impulse buying. Stern's (1962) work expanded the definition of impulse buying, which till then was, in general, considered to be another term for unplanned buying. The first classification of impulse buying, according to Stern (1962), is 'pure impulse buying', which he considers to be most easily distinguished from others. Under pure impulse buying, it is the escape purchase, or novelty that breaks a normal purchase pattern. The second kind of impulse buying is that of 'reminder impulse buying'. This is said to occur when on seeing an item/product the shopper realises that the stock at home is low or exhausted or recalls an advertisement or some information about the product that triggers the purchase of the product.

The third kind of impulse purchase is that of 'suggestion impulse buying'. The difference between reminder and suggestion impulse buying is that under the latter, the shopper visualises the need for a product after seeing it for the first time and immediately purchases it. The shopper, in this instance, does not have any prior knowledge about the quality and function of the product, both of which are evaluated while in store. Suggestion impulse buying is also different from pure impulse buying in that it can be an entirely cognitive and rational purchase as opposed to affective and emotional appeal that causes pure impulse purchases. It is under this kind of impulse buying that the planning of shoppers transfers from before entering the store to after entering the store.

Stern (1962) views 'planned impulse buying' to be the fourth and last kind of impulse behaviour. Though the phrase may seem to contradict the concept of impulse buying, this kind of behaviour occurs when shoppers enter the store with intentions to purchase certain products and also with the expectation of making other purchases. This is because a shopper may not know beforehand the kind of promotions, new products/brands that are on offer in the store. One notable fact about planned impulsive buying is that this behaviour is witnessed more with the growth of self-service, where shoppers are permitted to explore, compare and make decisions without much help from staff in the store. Advertising and in-store displays to give more product information and stimuli to purchase have also been shown to contribute to planned impulse buying.

2.5.2 Impulse Buying and Personality Factors

Until the beginning of the twenty-first century, Youn and Faber (2000) note that most research on impulse buying was concerned with defining and measuring the construct. They contribute to the literature on impulse buying by studying the personality traits that could cause certain forms of behaviour. In particular, they identify three general personality traits that are related to impulse buying.

The first personality trait identified is 'lack of control'. Controllers, Youn and Faber argue, are reflective, cautious and sensible and like to plan their activities in advance. Those lacking control, on the other hand, are spontaneous, careless, or even reckless, and make their decisions rapidly. The emotional fluctuations of such individuals are also readily visible. Shoppers who lack control want instant gratification of their desires, even when this is not consistent with their ultimate goals. A general lack of control and impulsivity, therefore, is said to contribute to impulse buying during a shopping trip.

'Stress reaction' is the second personality trait said to be prone to making impulse purchases. Negative emotional states like anxiety, anger, and guilt lead to higher stress levels, and thereby behaviour that can be characterised as abnormal. The negative emotional states in this context occur due to everyday pressures, and not due to big life-changing occurrences. The stress leads some people to engage in behaviours in which they would not normally engage. One of the stress relievers for such people is indulging in heavy shopping which they perceive as providing some interim relief.

The third personality trait identified as influencing impulse buying is 'absorption', which is the penchant of becoming immersed in experiences that are self-involving and activated by engaging external stimuli. The role of marketers is substantial in this case as sensory cues in a retail store can be influenced and can cause increased sales. Such sensory cues include colours, smells, sounds and textures, all of which have been shown to increase sales due to consumers engaging in impulsive buying. Shoppers with higher absorption levels are said to engage in more sensory simulation, thus increasing the prospect of impulse buying.

As seen from the review above, research in the 1980s, and also to a certain extent in the 1990s, linked impulse buying more to products and less to the consumer phenomenon itself.

2.5.3 Impulse Buying and Gender

Dittmar, Beattie and Friese (1995) study impulse buying on the basis of social constructionist theory. They find that impulse purchasing of products reflects self-identity. Gender is one of the major social categories they found to have an influence on both which products are impulsively bought and the buying considerations made whilst purchasing them. Regarding the items purchased by men and women, their studies found that men buy instrumental and leisure items while women tend to buy goods that were symbolic and self-expressive. What the products bought by both genders reflect is independence and activity for men, and appearance and emotional aspects of self for women.

2.5.4 Individualism vs. Collectivism in Impulse Buying

Collectivism is a social pattern consisting of individuals who view themselves as an integral part of one or more collectives, like family and friends, while individualism is a social pattern consisting of individuals who view themselves as independent and autonomous of collectives (Triandis 1995). People who are from collectivist countries are guided by norms and duties that are imposed by the collective. They also emphasise their connectedness to the collective and, therefore, give high priority to the goals of the collective. By contrast, people from countries which are more individualistic tend to emphasise their uniqueness from others. This leads these consumers to give priority to personal goals, motivated by their own needs and preferences.

In consumer behaviour, this difference between individualists and collectivists is further supported by the study of Triandis (1994) who observes that even people who are very ambitious and manifest individualist tendencies in Malaysia are more likely to follow opinions of family members when making a purchase decision than collectivist, family-focused people in the USA. Almost all prominent research on impulse buying is focused on consumers in the western world. To get a more comprehensive picture of impulse, Kacen and Lee (2002) conducted studies across four countries – the USA, Australia, Singapore and Malaysia – to see if there existed differences that could be explained by culture. Their results indicate that normative social influences are less influential for those from individualist cultures than for those from collectivist cultures. Their study sheds more light on the phenomenon of impulse buying as their work focuses, not just on purchase intentions, but on post-purchase evaluations as well. Regarding satisfaction after an impulse purchase, their results show collectivist consumers to be comparatively more satisfied with impulse purchases when there is another person present at the time of purchase.

2.6 Satisfaction

Consumer Satisfaction has been one of the central concepts in the field of marketing and consumer behaviour. It is thus the second consequence of consumers' need for touch in a retail environment studied in this research. Consumer satisfaction is largely believed to be the source of all good things for an organisation, leading to increased loyalty among existing consumers and good word of mouth bringing in new consumers, both leading to increased sales and overall profitability. Satisfaction is not only important with for-profit organisations but even with organisations that are non-profit and those in the public sector. In fact, for the latter set of organisations, the measure of success can be customer satisfaction in itself. The above factors are reasons why, for many organisations, customer satisfaction is the key operational goal.

2.6.1 Antecedents of Consumer Satisfaction

A number of factors that lead to consumer satisfaction have been researched over the years. There have been studies like that of Westbrook and Newman (1978) that show socio-psychological characteristics playing a role in explaining consumer satisfaction. Age is also reported to be related to consumer satisfaction. Pickle and Bruce (1972) have shown that as the age of a consumer increases, the relative satisfaction levels also increase, leading to the conclusion that consumer satisfaction increases with age. Westbrook and Newman (1978) find evidence that personal competence and consumer satisfaction are related constructs. They point to evidence from their studies that a determining role in consumer satisfaction is played by personality, suggesting that consumer satisfaction increases with personal competence. The above examples show constructs that are positively related with consumer satisfaction. There are, however, some other factors shown to have an inverse relationship with consumer satisfaction. Pickle and Bruce (1972) provide evidence to show that those with lower levels of education are more satisfied consumers than those with higher levels of education. Their study sheds light on the fact that the more educated a consumer is, the lesser s/he is satisfied. Family income is another construct that has been shown to have an inverse relationship with consumer behaviour. Mason and Himes (1973) in their studies show that as total income of families decrease, their satisfaction levels increase. Their study is a little related to the earlier study cited, where as education levels decrease, satisfaction results increase. People with lower education levels and those with lower family incomes are, therefore, shown to be more satisfied consumers. Other studies related to consumer satisfaction have also focused on other indicators like race (Pfaff 1972) and marital status (Mason and Himes 1973).

Research on consumer satisfaction has developed further since these earlier studies, and later studies have focused on consumers' evaluation of performance of products after purchase. This was done by relating the construct of satisfaction to cognitive processes such as meeting or not meeting consumer expectations (Hoch and Ha 1986). The expectations consumers had prior to their purchase formed the basis of many of these studies, and their initial expectations compared with post purchase satisfaction levels. Yi (1991) in an extensive review of consumer satisfaction notes that these attempts are both more fruitful and promising than the demographic factors identified earlier.

The role of product performance, as noted by Yi (1991), can be conceptually split into 'perceived product performance' and 'objective product performance'. While several levels of perceived product performance may exist for a product, objective performance can be more or less the same across consumers, as it is the real or actual level of product performance and, therefore, tangible in nature.

2.6.2 Theoretical Basis for Antecedents to Consumer Satisfaction

Researchers like Engel and Blackwell (1982), use ‘contrast theory’ to explain why consumers tend to exaggerate and express surprise when their expectations are not matched by actual product performance. ‘Contrast theory’ promotes the view that understating expectations will lead to greater perceived product performance than actual performance. The concept of disconfirmation is important in understanding this view. Disconfirmation in this case is defined as the difference between performance and expectation. When disconfirmation is positive, perceived product performance exceeds expectation, but when it is negative, consumer dissatisfaction occurs.

Another theory that has been used to understand consumer satisfaction is the ‘assimilation-contrast theory’, which posits that in one’s own perceptions there exist latitudes of acceptance and rejection (Sherif and Hovland 1961). If there is not much disparity between consumer expectation and product performance, and, therefore, falls into consumers’ latitude of acceptance, then satisfaction levels are according to expectations. The potential danger for manufacturers and marketers here is that high expectations about the quality of a product in turn lead to favourable ratings, but if the expectations were low in the first place, lower satisfaction levels are witnessed, provided both expectations and performance are within consumers’ latitude of acceptance.

‘Cognitive dissonance theory’ is another theory used to better understand consumer satisfaction. When applied to product evaluation, ‘cognitive dissonance theory’ enables us to understand if there exists a disparity between expectations from a product and the actual or perceived performance of that product. While evaluating a product(s), consumers may undergo psychological discomfort, and, therefore, try to decrease this by modifying their perception about the product. Olson and Dover (1979) are among the many researchers who have found evidence to support this theory.

Support for ‘generalized negativity theory’ is given by studies of researchers like Oliver (1976), who show that both positive as well as negative disconfirmations lead to a not so favourable evaluation of the product and thereby, consumer satisfaction.

A fully cognition based explanation is given by Deighton (1984) to account for the expectation effect on product ratings. This is done with the help of a two-step model of the influence advertising plays. He posits that at the first stage it is advertising that creates expectations, and this serves as a hypothesis for consumers in the second stage.

The five theories discussed explain to a large extent consumer satisfaction based on their initial expectations and perceived product performance.

2.6.3 Consequences of Consumer Satisfaction

The previous two sections examined the antecedents of consumer satisfaction and the theoretical explanations for the same. What is equally important to marketers is knowledge of what happens when consumers are dissatisfied. Yi (1991) summarises responses consumers typically display when they are not satisfied. One response that can take place is that consumers take no action at all and continue consuming the same product or shopping at the store even when they are dissatisfied. This may occur when they are not motivated to switch products/stores, or have very few options to choose from. Another explanation as to why consumers might stay on in spite of product(s) not meeting the quality given is that it is only an elite group of consumers who are very conscious about quality. These consumers normally switch loyalties in favour of better alternatives, while the majority that are not very quality conscious or knowledgeable stay on. This is supported with the example of physician care where sophisticated patients or consumers simply change the provider while the remaining patients/consumers do nothing, and thereby stay behind. The second response is to switch brands, or no longer patronise the product or store. The third kind of behaviour witnessed would be consumers making a complaint. This could either be directly to the seller, or worse, to a third party in the form of letter to the editor of a magazine or negative word of mouth, which can be more damaging than the former.

2.6.4 Consumer Satisfaction as a Product of Outcome and Process

Many researchers in the past have focused on the consumption experience of the consumers, and, therefore, defined consumer satisfaction as outcome-oriented. For example, Howard and Sheth (1969, p. 145) define consumer satisfaction as "the buyer's cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone". Oliver (1981, p. 27) defines consumer satisfaction as "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience".

Other researchers have found the evaluative process to be an essential factor influencing satisfaction levels witnessed by consumers. Hunt (1977, p. 459), on these lines, defines consumer satisfaction as "an evaluation rendered that the (consumption) experience was at least as good as it was supposed to be". Tse and Wilton (1988, p. 204) also support this and define consumer satisfaction as "the consumer's response to the evaluation of the perceived discrepancy between prior expectations (or some other norm of performance) and the actual performance of the product as perceived after its consumption".

Yi (1991) is of the view that more than the outcome-oriented approach, it is the process-oriented approach that seems useful. The reasoning being this is that the process-oriented approach covers the entire consumption experience and draws on psychological, evaluative and perceptive processes, all of which combine together to form the construct of consumer satisfaction.

Heitmann, Lehmann and Herrmann (2007) highlight the difference between the two types of consumer satisfaction discussed above and develop a scale to measure them. They note that not much is known as to how related these two types of consumer satisfaction are, providing a direction for future research.

2.7 Brand Loyalty

Brand loyalty is one of the long term strategies marketers use to develop a relationship with the customer and is the third consequence of consumers' need for touch in a retail environment as studied in this research. Brand loyalty has been defined by Oliver (1997) as "the deeply held commitment to re-buy or patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set repurchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour". The importance of brand loyalty has long been long recognised. A seminal work on this by Copeland (1923) was published almost nine decades ago. Repeat purchase was initially considered to be at the centre of brand loyalty. An example of this view is seen in the early work of Brown (1952) who showed how purchase history was the determinant of brand loyalty.

2.7.1 Behavioural and Attitudinal Brand Loyalty

Jacoby and Chestnut (1978) introduce a psychological component while defining brand loyalty. They defined brand loyalty as "the behavioral response expressed over time by some decision-making unit, with respect to one or more alternate brands out of a set of such brands, and is a function of psychological processes".

Mellens, Dekimpe and Steenkamp (1996) note that most operational measures of brand loyalty can be classified into two broad categories – behavioural and attitudinal. Researchers, who view brand loyalty from a behavioural perspective, take actual purchases over a certain period of time as a measure of brand loyalty. There are three main advantages of the behavioural perspective. First, since actual purchases are central to behavioural brand loyalty, it is directly related to the existence and performance of a firm. Second, as the behaviours are over a period of time, they are unlikely to be incidental. Lastly, data collection is also easier as behavioural brand loyalty is quantifiable.

Among the most notable of disadvantages of this method of measuring brand loyalty is that there is no distinction between brand loyalty and repeat purchasing. Due to this limitation, Day (1969) observes that brand loyalty from a behavioural perspective may be spurious to a certain extent. Though a precise measure of past consumer behaviour, another disadvantage of the behavioural measures of brand loyalty is that they are not good predictors of future behaviour (Day, Shocker and Srivastava 1979).

Attitudinal measures, in contrast to behavioural measures, are based on declared preferences on the part of the consumers. Attitudinal measures draw on the cognitive aspect of brand loyalty, emphasising consumer commitment and future purchase intentions. Attitudinal measures are therefore able to distinguish between the separate constructs of brand loyalty and repeat purchasing. Data is collected directly from the consumer through methods like interviews and surveys in attitudinal measures, while in behavioural measures the data is collected from the retailer. For marketers, a great advantage in using attitudinal measures is that it is possible to find consumers' underlying motivations for brand loyalty.

Attitudinal measures also have their disadvantages. At times, consumers have preferences, but are not able to purchase those products due to budgetary constraints and other external variables that influence purchase decisions during a shopping trip. Also, though attitudinal data can be effective when collected on a longitudinal basis, this sort of research is not normally carried out by researchers as it not cost-effective.

Given the disadvantages in both behavioural and attitudinal measures, researchers began exploring the possibility of using a mixed method approach to accurately measure brand loyalty. Developing the concept of mixed method, Park and Srinivasan (1994) measure consumers' brand loyalty in terms of the price-premium they are willing to pay to purchase a given brand. The higher the price, the likelier it is that the consumer is brand loyal. A drawback in this method is that laboratory experiments are needed to verify the causality.

2.7.2 Spurious and True Brand Loyalty

Though brand loyalty has been studied in marketing literature for nearly a century, as described above, the concepts of repeat purchasing and brand loyalty have been mixed. To clear the distinction between the two, Bloemer and Kasper (1995), drawing on the work of Jacoby and Chestnut (1978), distinguish between two types of loyalty, which they name spurious and true brand loyalty. They define spurious loyalty as "the biased (i.e., not random), behavioral response (i.e., purchase), expressed over time, by some decision-making unit, with respect to one or more alternative brands out of a set of such brands, which is a function of inertia". Spurious brand loyalty, therefore, is not based on brand commitment. The researchers contrast this with true brand loyalty by defining it as “the biased (i.e., not random), behavioural response (i.e., purchase), expressed over time, by some decision-making unit, with respect to one or more alternate brands out of a set of such brands, which is a function of psychological (decision making, evaluative) processes resulting in brand commitment”. True brand loyalty is, therefore, based on brand commitment, as a result of which the consumer is committed to purchasing the very same brand the next time a purchase is made.

2.7.3 Hard-core and Reinforcing Loyalty

Studied from a behavioural perspective, brand loyalty has been seen as a phenomenon where consumers are loyal exclusively to one brand, or rather, that they display only a single option during their purchase decisions. Lately however, there has been a tremendous increase in the number of brands consumers can choose from. This, note Yim and Kannan (1999), has caused a considerable decrease in the traditional concept of brand loyalty, i.e. a consumer purchasing one brand alone. Brand loyalty is still a central concept in marketing. However, many consumers now-a-days tend to be loyal to more than one brand. In other words, many consumers display divided brand loyalty among a few brands which they like. Yim and Kannan (1999) differentiate these two kinds of loyalty into hard-core loyalty and reinforcing loyalty. In hard-core loyalty, consumers exclusively make repeat purchases of a single product alternative, while in reinforcing loyalty consumers tend to switch between favourable alternatives, making repeat purchases between these favoured alternatives to a significant degree. Yim and Kannan (1999), therefore, find that information of greater value is obtained when loyalty to a product is measured, not just in terms of either hard-core or reinforcer loyalty, but as a measure of both.

2.7.4 Importance of Brand Loyalty in Marketing

One of the reasons why brand loyalty is a very important concept in marketing literature is because a firm's success to a great extent depends on its capability to attract consumers to the brand(s) it offers (Mellens et al. 1996). The authors state that retaining customers is central to a firm's success, as firms with higher loyalty enjoy a competitive advantage over firms with lower rates of loyalty. With regards to marketing, the costs involved in attracting new customers are greatly reduced when brand loyalty towards the product is high. Among practitioners, brand loyalty is reported as one of the chief sponsorship objectives. The study of Rosenberg and Czepiel (1983) shows the costs of attracting a new consumer to be six times higher than retaining an old consumer. This huge difference in costs is one of the main reasons why firms concentrate on increasing brand loyalty among their customers.

Another advantage of brand loyalty is that when consumers are brand loyal to a product is that they are willing to pay a higher price for that product. Krishnamurthi and Raj (1991) study the relationship between brand loyalty and price elasticity. Their results show that consumers who are brand loyal are comparatively less price sensitive and are ready to pay a higher price to purchase the product.

2.8 Post Purchase Consumer Regret

Consumers have a lot of expectations while purchasing a product. Sometimes these expectations are met or even exceeded while at other times they are not. When consumers do not get the benefits from the product/item as they hoped for, the resulting experience is that of a negative emotion or feeling. At times, however, this negative emotion or feeling can be worse, especially when considerable prior effort had gone into choosing a product or item. Just as failing an exam is very painful after putting in the required effort, consumers feel worse when in spite of their best effort the product(s) they bought has not served its purpose as intended. These situations are explained by the work of Wyer and Srull (1989), who argue that negative affect is much deeper after an effort is invested in vain. Regret being such a central concept in marketing and consumer behaviour is included in this research as a possible consequence of consumers' need for touch in a retail environment. Two of the very frequently encountered emotions are regret and disappointment.

The traditional view concerning regret is that it is a painful feeling that one feels because of the comparison of 'what is' and 'what might have been', as noted by Sugden (1985). Zeelenberg and Pieters (2006) view regret as a cognitive emotion that is aversive in nature and one that people generally try to evade, suppress or deny. The underlying theme in the description above is that in order to regret, consumers must first think, employ a cognitive process, and then compare the chosen option to the foregone option. It is only if the result shows that the foregone option would have been better that consumers feel regret over their actions.

One of the major components of regret is that of self-blame. Gilovich and Medvec (1994) observe that individuals experience greater regret when they perceive themselves to have more control over their decisions than when they do not. This finding is pretty consistent in literature, showing that regret intensity is often influenced by self-blame and the level to which individual responsibility is taken.

Zeelenberg and Pieters (2006) point out that in order to experience regret one must be able to think of alternative scenarios different from the present state, in addition to feeling responsible. The process of making a comparison between alternative possibilities and assessing how attractive they are, is called ‘counterfactual thinking’ (CFT). It is to be noted that CFT is a thought-process of how an existing outcome could have been altered or prevented in order to obtain a more positive outcome, and not just an evaluation of the present outcome. Kahneman and Miller (1986) note two directions (or forms) of CFT: upward and downward. Thinking out how the outcome could have been for the worse is said to be downward CFT, while thinking of how the outcome could have been better is said to be upward CFT. They show it is upward CFT that more often people engage in, and that it is then that they have greater regret. This, put in the context of consumer behaviour, leads to the proposition that consumers have a tendency after a negative purchase outcome to indulge in upward CFT. This upward CFT, however, gives consumers the opportunity to look back at what went wrong, and analyse why they made a poor choice and missed better opportunities.

As noted in the above discussion, negative emotions can be broadly classified into regret and disappointment. Weiner, Russell and Lerman (1979) point out that after the failure on a task, one of the more frequently experienced emotions is that of disappointment. Shimanoff (1984) observes that in everyday language, the most often named emotion is that of regret. It is important, however, to note that though they sound similar, there are significant differences between the two and that they are not to be confused. Though both these negative emotions of regret and disappointment are felt when the comparison is made between the 'what is' and 'what might have been' situations, disappointment arises from comparing the actual outcome and prior expectation, while regret stems from comparing the actual outcome to what might have been if a different option had been chosen (van Dijk, van der Plight and Zeelenberg 1999). Another difference that has been suggested is that regret generally occurs when individuals think they had control over the situation but made a wrong choice, whereas disappointment is felt when consumers feel it was beyond their control and the blame lies with others.

Connolly and Zeelenberg (2002) using the 'decision justification theory' argue that regret can emanate from either evaluation of outcomes or evaluation of the processes. Post purchase outcome regret can be traced to the point where consumers start comparing the outcomes of what has been purchased to that which could have been purchased. The other cause of regret is to do with the quality of the decision-making process, which is also susceptible to regret. This is termed process regret, and is evoked when consumers compare their second-rate or mediocre decision-making process to that of an alternative but better decision-making process. The difference is in that when consumers experience regret because of process, it comes from comparing their decision-making processes and not the outcomes alone. These two components of regret – outcome and process – are not necessarily felt simultaneously, but can be felt independent of one another. This suggests that a consumer, even after having a positive purchase outcome, can regret the process.

2.8.1 Types of Post Purchase Consumer Regret

Lee and Cottee (2009) have shown that the construct of regret is multi-dimensional in nature. They argue that total regret experienced by a consumer can be because of the outcome, process or both components. The sections below discuss regret due to the selection of foregone alternatives and regret due to over-consideration, since these aspects are of particular interest to this research.

2.8.1.1 Regret Due to Selection of Foregone Alternatives

This type of regret is viewed as the traditional type of post purchase regret, where consumers regret having chosen one alternative in favour of another alternative. The nature of this form of regret is that there was at least one other choice available, which the consumers retrospectively think would have been better than the choice they made. A subdivision to this form of regret can be that the other alternate might be known or unknown, but consumers believe that the one they chose is inferior to the other they did not choose. Past literature (Bell 1982) shows that it was believed that the outcome of the alternative that was rejected was known to the buyer/consumer for regret to occur (e.g., purchasing product X, while fully knowing about products Y and Z). Later studies, however, suggest that regret can be experienced even when the foregone alternatives are not known. This implies that consumers can imagine, or for that matter hypothetically imagine, the foregone alternatives as posited by Ritov and Baron (1995). These unknown foregone alternatives happen to be choices that at the time of purchase are not available to the consumer, but are imagined hypothetically post purchase. It is to be noted that regret can be experienced even when consumers think they are making the right decision at the point of purchase.

2.8.1.2 Regret Due to Over-consideration

Consumer regret, because they think they have spent much time and effort on a purchase decision, can be argued to be as prevalent as is regret due to under-consideration. This dimension of regret, as also regret due to under-consideration, focuses on heuristic processing. The emphasis on regret due to over-consideration is on how consumers could have achieved the same results, having put in much less time, effort or both. Traditional wisdom says that more thinking leads to better decisions. Pieters and Verplanken (1995) argue that thinking enables individuals to search and evaluate the pros and cons of each option, increasing the intention-behaviour consistency. Consumers sometime tend to avoid or delay making their final decision by exerting more effort into evaluating alternatives and collecting more information in order to reduce future regret. A threshold, however, is reached beyond which any amount of time, effort or money invested does not increase the probability of purchasing a better product. The information acquired beyond this threshold can be said to be superfluous. It is when this extra time, effort or money is exerted by consumers, without making any improvement in their choice of purchase that regret due to over-consideration occurs. The regret can be also the emotional burden undertaken, the cognitive overload or the stress experienced that could otherwise have been avoided by the consumer.

2.9 Summary

This chapter provided a literature review on consumers' need for touch and also a literature review of the possible antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. Specifically, a literature review on the need for touch, consumers' need for affective and cognitive touch in a retail environment, individual personality traits of intuition, perfectionism, predisposition towards maximisation, self-monitoring, need to evaluate, lifestyle trait of money conservatism, consumer knowledge, goal orientation, impulse buying, satisfaction, brand loyalty and outcome regret, was provided.

This chapter has therefore provided a review of the major concepts that will be studied in this research. The ultimate aim of the literature review chapter was to provide a theoretical background in order to develop the integrated conceptual framework presented in the following chapter.

CHAPTER 3: CONCEPTUAL FRAMEWORK

AND RESEARCH HYPOTHESES

3.1 Introduction

The purpose of this chapter, based on the literature review, is to unite the theories and key constructs discussed in previous chapters into an integrative conceptual framework of antecedents and consequences of consumers' need for touch in a retail environment. The framework first investigates the relationship between personality traits and consumer perceived knowledge. The impact of personality, lifestyle traits and product factors on goal orientation is then investigated. Thirdly, the role of product factors and varying goal orientations on the kind of touch employed by consumers in a retail environment is investigated. Fourthly and lastly, the consequences of consumers' need for touch in a retail environment in terms of impulse buying, satisfaction, brand loyalty and outcome regret is evaluated.

This chapter has five main sections followed by a summary. Section 3.2 provides a broad outline of the approach to be adopted to test the relevant hypotheses. Section 3.3 conceptualises the relationships among the relevant personality traits and between personality traits and consumer perceived knowledge. Section 3.4 conceptualises relationships between lifestyle traits, consumer perceived knowledge and goal orientation. Conceptualisation of relationships between the need to evaluate, goal orientation and consumers' need for affective and cognitive touch in a retail environment is provided in Section 3.5. Conceptualisation of relationships between consumers' need for affective touch in a retail environment and its consequences in terms of impulse buying, satisfaction, brand loyalty and outcome regret is provided in Section 3.6. Finally, Section 3.7 provides a summary of the chapter.

3.2 Outline of Conceptualisation

This research proposes an expanded view of the antecedents and consequences of consumers' need for affective or cognitive touch in the retail environment. For the antecedents of consumers' need for touch in a retail environment, this research posits that a complex set of personality and lifestyle traits and consumer perceived knowledge affect consumer choice goals, which in turn affect the type of touch consumers display. Among consequences, this research conceptualises the relationship between consumers' need for affective and cognitive touch in a retail environment with four key outcomes that are of interest to both academicians and retailers – impulse buying, satisfaction, brand loyalty and outcome regret.

Theorists, while modeling complex choices in the past, have proposed a two-step process consisting of the consideration and evaluation stages. Wright and Barbour (1977) treat consideration-set formation as the first step in the choice process, where consumers use a non-compensatory rule for the purpose of reducing a choice set to a few alternatives. The second step completing the process is described as using a compensatory rule to evaluate the remaining alternatives. In an industrial setting, Gensch (1987) also reports that consumers employ a similar two-choice process. Sambandam and Lord (1995) point out that there is an element of difference in the time lag between these two stages, depending on the product being consumed. The example they give is that a visit to a restaurant happens almost immediately following the choice of restaurant, but in the case of automobiles the time lag is longer between the consideration and physical evaluation stages. Recent studies have shown that the consideration and evaluation stages are based on individual and product factors and the goal orientation of consumers. The studies of Heitmann et al. (2007), for example, show the important role individual and product factors play in shaping the choice goals and thereby customer satisfaction.

This research posits a four-stage approach that occurs before consumers make a purchase decision in a retail setting. In the first stage, a few individual traits connected to personality and lifestyle among consumers are identified. The second stage comprises the product factor of consumer perceived knowledge. In this research, the concept of product knowledge is limited to perceived knowledge. This is because consumers' actions are often based on how they perceive things to be (Alba and Hutchinson 2000). These individual and product-related factors together, it is argued, affect consumer choice goals – the vital motivation stage (Westbrook and Black 1985) which enables thoughts and traits to be translated into action. Two choice goal orientations, approach and avoidance (Arnold and Reynolds 2009), are identified in the third stage of the model. The theoretical underpinning for approach and avoidance goals can be traced to the 'regulatory focus theory' (Higgins 1997), which distinguishes between a promotion and a prevention focus. Consumers with approach goals are eager and excited at the prospect of shopping, while consumers with avoidance goals treat it as more of a task in order to avoid outcome regret. Having passed through individual, product factors and the role these play in choice goals, the fourth and last stage conceptualised is the physical or haptic evaluation of products that takes place immediately before the purchase of a product. This research argues that in a retail context, approach goal orientation where consumers are eager, excited, happy and shopping for fun and enjoyment, translates into consumers' need for affective touch, whereas avoidance goals, conceptualised as anticipated outcome and process regret make consumers adopt a more cognitive nature to haptic information. It is recognised, however, that affective and cognitive touch are not mutually exclusive, and that those who engage primarily in affective touch tend to display some form of cognitive touch before making a purchase.

Having developed an outline for the four-stage approach leading to consumers' display of affective and cognitive touch in a retail environment, this research also conceptualises its consequences in terms of impulse buying, satisfaction, brand loyalty and outcome regret. Not all of these four are conceptualised as direct consequences of consumers' need for touch in a retail environment. A stage-wise approach, similar to that of the antecedents of consumers' need for touch in a retail environment, is developed for the consequences as well. The following sections present detailed conceptualisation of the hypotheses to be developed.

3.3 Determinants of Consumers' Perceived Knowledge and Need to Evaluate

In this section, the relationship between the personality traits of intuition, predisposition towards maximisation and consumer perceived knowledge and between perfectionism and need to evaluate is conceptualised. The reason for selecting these specific personality traits is because they largely capture the different decision-making styles consumers employ in their day-to-day activities. As mentioned earlier, product knowledge in this research is limited to consumer perceived knowledge, as research (Alba and Hutchinson 2000) has shown that the actions of consumers are more often based on how they perceive things to be than on how they actually are.

The first trait is intuition, which Hodgkinson, Langan-Fox and Sadler-Smith (2008) define as 'looking, regarding or knowing from within'. They note that until recently, the 'theory of intuition' has received very little scholarly attention, both within as well as beyond the psychological sciences. Consumers often display intuition in a retail environment. Many purchase decisions are made once consumers are in the store, with one study noting that 73% of purchase decisions are made at the point of sale (Rettie and Brewer 2000). Outwardly, this may be attributed to impulse buying behaviour, but a deeper analysis also reveals the important role intuition plays in the consumer decision-making process. Kardes (2006) suggests that when the complexity of the task is believed to be high in terms of the various alternatives available, many attributes to consider and pressure on time, consumers are very likely to simplify choice heuristics. Consumers also rely on intuition to fill the gap at times when evaluation is not possible based solely on the facts available. Research has shown that. Compared to rational decision-making, intuitive processing is much faster in many cases (Dane and Pratt 2007), and also requires less effort (Alter, Oppenheimer, Epley and Eyre 2007). This saving of time and effort encourages people to make decisions intuitively rather than employ the rational decision-making process, which they believe may not improve the quality of their decisions. From the studies of Broniarczyk and Alba (1994) it can be concluded that intuition has played a continuing role in predicting and explaining consumer behaviour. The researchers outline two reasons for this: first, that consumers consider intuition to be the source of product beliefs, and second, that consumers find intuition to be an attractive alternative for investigation and direct product knowledge. To summarise the above, intuition can be said to be a strong belief in something from within, which is easy and quick to process. This in turn results in higher confidence in the decision-making process (Simmons and Nelson 2006). It is thus hypothesised that intuitive consumers have high perceived self-knowledge.

H1: Intuition is positively related to consumers' perceived knowledge

In sharp contrast to intuition is the construct of perfectionism (Hollender 1965), the second individual trait in this study. While consumers who are intuitive rely on instincts to choose among alternatives, perfectionists have a high learning goal orientation. Research into consumer behaviour has shown perfectionists to have high expectations (Kopalle and Lehmann 2001). Perfectionists meet these high expectations by always wanting to learn more (Schwartz 2004) and by this process of learning, make more informed choices. While intuition gives consumers confidence through their beliefs from within, perfectionists attempt to make choices by evaluating all the options possible. Introducing the trait of the need to evaluate, Jarvis and Petty (1996) note that before arriving at a decision, some individuals are more prone than others to engage in evaluation. Perfectionists have a deep appreciation of the nature of the process required to achieve such a standard and are willing to adapt or learn during the process in order to achieve the expected standard. This research therefore posit that perfectionistic consumers will tend to employ a more rational process when choosing what to purchase, and will have a higher need to evaluate and to learn. This leads to the following hypotheses:

H2: Perfectionism is positively related to consumers' need to evaluate

Maximisation (Schwartz, Ward, Monterosso, Lyubomirsky, White and Lehman 2002) is the third individual trait this research conceptualises as being one of the early antecedents of consumers' need for touch in a retail environment. The term maximisation has been primarily used in economics (Williamson 1966), seeking to explain organisations', individual's desire to increase their monetary riches (Squalli 2005). Perfectionism and maximising are two distinct constructs, as was established in the literature review (Schwartz 2004). While maximisers, like perfectionists, seek and expect to meet very high standards, their focus is primarily on the end results or end performance, and they tend to give inadequate attention to the processing of achieving the expected performance. Consumers also for their part, seek to maximise the value for the money they part with while purchasing a product. Observing such a phenomenon, Besanko and Winston (1990) characterise consumers as inter-temporal utility maximisers. Maximisers tend to perceive themselves as highly knowledgeable. They have the passion to want only the very best, which they consider to be a reflection of their level of knowledge. Even if they are satisfied with the current option, they search for other available options, hoping there will be something better than the one they have in hand. It is therefore hypothesised that:

H3: Predisposition towards the trait of maximisation is positively related to consumers' perceived knowledge

3.4 Determinants of Consumer Choice Goals

One of the immediate antecedents of shopping is the motivation to do so (Jones, Reynolds and Arnold 2006). Goal orientation literature dates back more than two decades. The concept of goal orientation was first introduced by Dweck and his colleagues (Dweck 1986; Dweck and Leggett 1988), who conducted research in academic settings with children. Theorists have pointed out different goal orientations in a retail environment. Bäckström (2006) classifies consumers' shopping orientations as recreational and economic, while Hamilton and Chernev (2010) point to two consumers goals, namely as browsing and buying.

This section conceptualises the antecedents of two choice goals – approach goal orientation and anticipated regret. Specifically, the relationships between self-monitoring, consumers' perceived knowledge and approach goal orientation will be conceptualised. This will be followed by the conceptualisation of the relationship between predisposition towards maximisation, money conservatism and anticipated regret. Finally, the relationship between two kinds of anticipated regret, outcome and process, will be conceptualised.

'Self-monitoring theory' is drawn from personality and social psychology literature. Snyder (1987) notes that people high on self-monitoring tend to observe, regulate, and control their behaviour very consciously in the presence of others. In other words, self-monitors are not their natural self when in the presence of others. Drawing a parallel to the retail environment, it can be said that consumers who are high on self-monitoring will not exhibit high goal orientation, where they are eager and excited to go shopping for the fun and enjoyment of it. Rather, consumers with high self-monitoring will have low approach goal orientation, as it is in their personality to observe, regulate and control their behaviours in the presence of fellow-shoppers. Further support for this hypothesis is offered by Allport (1961), who distinguishes between coping and expressive behaviour. Drawing upon these concepts of coping and expressive behaviour, this research theorises that consumers who are self-monitors exhibit coping behaviour in the presence of fellow shoppers, and not such expressive behaviour as consumers with high goal orientation exhibit. More recently, the results from the studies of Jawahar (2001) show that those with low self-monitoring behaviour believe it is not necessary to change their behaviour in the presence of others. This finding provides further evidence that self-monitoring and approach goal orientation in a retail shopping environment are inversely related to each other. The hypothesis derived from the above conceptualisation is as follows:

H4: Self-monitoring is negatively related to consumers' approach goal orientation

Consumer perceived knowledge is an important antecedent in the consideration and evaluation processes of purchasing a product. Srinivasan and Ratchford (1991) model product experience and knowledge as antecedents of a consideration set. Sambandam and Lord (1995) argue that the more product-related knowledge consumers have, the more developed their memory structure is with readily accessible information, enabling easy retrieval. This research posits that consumer perceived knowledge in turn positively influences their approach goal orientation towards shopping. Product knowledge leaves consumers confident in their ability to interpret, evaluate and use information (Johnson and Russo 1984). Consumer perceived knowledge is, therefore, an important indicator of motivation. Park, Mothersbaugh and Feick (1994) divide consumer knowledge broadly into two categories – objective and perceived or self-assessed. Perceived knowledge to an extent tells about the confidence a consumer has in his/her knowledge, whereas objective knowledge gives a clear indication of what information is actually stored and recollected. The key word while understanding perceived knowledge is ‘perception’; it is what consumers claim to know, which at times can be different to what they actually know. Jacoby, Chestnut and Fischer (1978) find that there exists a positive relationship with prior experience and information search. More recently research by Wang, Alexander and Lynch Jr. (2010) into consumer usage of new products has shown product knowledge to positively influence consumers’ approach goal orientation. Hong and Sternthal (2010) find that consumers with higher perceived knowledge are more engaged in the achievement of goals. Perceived knowledge increases confidence among consumers, and it is this confidence that translates into approach goal orientation. This research posits, therefore, that consumer perceived knowledge has a positive relation with approach goal orientation:

H5: Consumers’ perceived knowledge is positively related to their approach goal orientation

In addition to approach goals, consumer behaviour in a retail environment is also influenced by avoidance goals. Kalra and Shi (2010) point out that consumers have varying levels of risk aversion. Heitmann et al. (2007) show that anticipated regret is a form of avoidance goal. In anticipated regret, consumers tend to anticipate outcome regret largely based on previous shopping experiences. Consumers who anticipate process regret thus tend to reconsider the buying process in itself and have been shown to put in more thought and effort before making a purchase decision. Exploring personality traits, Chowdhury et al. (2009) find that maximisers, when compared to satisficers, engage in both greater pre-purchase browsing behaviour and feel more decision-time pressure. Iyengar et al. (2006), in a study among students choosing jobs, found that students who had high maximising tendencies secured jobs with significantly higher starting salaries when compared with satisficers. However, even though their salary was lower, it was satisficers who were happier with the jobs they obtained. On the other hand, maximisers were less satisfied than satisficers with the jobs obtained. Similarly, Schwartz et al. (2002) observe that consumers whose tendency is to maximise, have greater levels of regret than those who do not. The relation between maximisation and post purchase/consumption regret is thus well established in the literature. This study, however, looks at how consumers who have a predisposition towards maximisation behave in a retail environment when they anticipate regret.

In anticipated outcome regret, maximisers try to look into the future to see whether the product they purchase will change in significance over a period of time. The 'means-end theory' in the context of consumer behaviour (Lee and Cottee 2009) suggests that consumers have a propensity to evaluate products on the basis of the ability of that product to fulfil the desired purpose. To decide whether the purchase was worthwhile, consumers look to see to what level the purchase will meet their expectations. Consumers whose predisposition is to maximise, may thus experience regret with the outcome of shopping if they feel the product is not serving the purpose, and that another product should have been purchased in the first place. Therefore, this research hypothesises that consumers with a predisposition towards maximisation tend to anticipate more outcome regret, and to act in advance to reduce anticipated outcome regret.

H6: Predisposition with maximising is positively related to consumers' anticipated outcome regret

Evidence from the existing literature indicates that those who are frugal make decisions based primarily on price and value. For example, Lastovicka et al. (1999) found that people who were careful with their money were less susceptible to influence from others, were comparatively less materialistic and, with specific reference to buying behaviour, had lower compulsive buying tendencies. This research draws mainly upon the work of Rick et al. (2008), who show that consumers who are careful with money anticipate pain before paying. This pain before parting with money makes these consumers think ahead and anticipate the consequences of purchases decisions over a longer period of time. Drawing on their work and the broader literature, this research contends that consumers whose trait is to be careful with money tend to anticipate regret in a shopping environment before making a purchase decision. As conceptualised in the previous section, consumers tend to anticipate outcome regret first, in that they tend to consider whether their purchase(s) will fulfil their intended use over the expected period of time.

H7: Money conservatism is positively related to consumers' anticipated outcome regret

Furthermore, this research posits that consumers who anticipate outcome regret tend to anticipate process regret (regretting the decision-making process itself) as well. The theoretical basis for this argument stems from the 'theory of regret regulation' and the 'decision justification theory'. Propounding a 'theory of regret regulation', Zeelenberg and Pieters (2006) postulate that regret can arise because of both evaluation of outcomes and evaluation of the process. Justification as to which type of regret, outcome or process, precedes the other can be drawn from the 'decision justification theory'. Connolly and Zeelenberg (2002) have proposed the 'decision justification theory' by synthesising many conflicting findings in regret literature. They postulate two central components of regret that relate to decision-making. The first component, according to Connolly and Zeelenberg (2002), is related to comparative evaluation of outcome, while the second is associated with the feeling of self-blame because of having made a poor choice. Extending the same concept to anticipated regret, once consumers anticipate outcome regret they tend to rethink the buying process itself. This is because, once consumers are able to anticipate outcome regret, they feel they should put in more thought, effort and/or acquire more information before purchasing the product. They thus tend to avoid regret due to under-consideration (Lee and Cotte 2009), which is to regret the process in itself by which consumers arrive at the decision. This leads to the next hypothesis.

H8: Consumers' anticipated outcome regret is positively related to their anticipated process regret

3.5 Determinants of Consumers' Need for Affective and Cognitive Touch in a Retail Environment

This section conceptualises the relationships between the need to evaluate, choice goals and consumers' need for touch in a retail environment. Specifically, the relationship between approach goal orientation and consumers' need for affective touch in a retail environment is conceptualised, followed by the conceptualisation of relationships between need to evaluate, anticipated process regret and consumers' need for cognitive touch in a retail environment. Finally, the conceptualisation for consumers' need for affective touch preceding their need for cognitive touch in a retail environment is provided.

While need for touch is the physical display in search of haptic information, approach goal orientation is the preceding motivating state that leads consumers to the retail store. Motivation literature has long established that approach goal orientation tends to focus on the positive rather than the negative aspects. Individuals who have approach goal orientation, regardless of their objective ability, have a propensity to focus on attaining competence and achieving better task performance (Bandura 1989). The reasoning behind this is that individuals with approach goal orientation perceive the achievement setting as a challenge. This in turn tends to generate excitement, encouraging an orientation towards the presence of success-relevant and mastery-relevant information. Approach-oriented motivation includes states like achievement motivation, self-actualisation, hope, joy, interest, expectation and desire (Reeve 2009). Such consumers, in the context of a retail setting, are enquiring, inherently motivated and sensation seeking, with goals and plans while choosing among the various alternatives available. This research thus posits that consumers' approach goal orientation in a retail environment translates into the affective need for touch, which is touching for fun, enjoyment and to enjoy the process of shopping. In other words, affective touch is hedonically oriented and, therefore, consumers with approach goal orientation will engage in the affective need for touch, resulting in the next hypothesis:

H9: Consumers' approach goal orientation towards shopping is positively related to their need for affective touch

In their daily lives individuals encounter a multitude of objects and choices. Fazio (2000) notes that this multitude of objects and choices require individuals to make many decisions. Shopping is one environment where consumers are presented with many choices. There is a constant bombardment of information which forces consumers to make many decisions. Almost every shopping event involves consumers making a continuous cycle of choices, based on their interpretations and evaluation of the objects. The work of Holbrook (2006) sheds light on the link between the need to evaluate and information gathering. Individuals with a high need to evaluate were found to gather all the information available and then form evaluations based on this information. Vieira (2009) observes that consumers with a high need to evaluate do not rely on outside influences, like advertisements. Instead, these consumers form evaluations based on their own judgments. These studies indicate that individuals with a high need to evaluate employ a cognitive process in order to make an informed decision. Moreover, this research noted earlier that perfectionists have a high need to evaluate products before making a purchase decision. In the retail context, this research posits that these consumers employ the need for touch in order to make the best purchase decision. This need for touch is not for fun, excitement, enjoyment as manifested in affective need for touch, but rather is cognitive in nature:

H10: Consumers' need to evaluate is positively related to their need for cognitive touch

Anticipated regret has been shown to be one of the main motivating forces driving the selection of products (Bell 1982). In consumer research though, it is post purchase regret that has received more attention (Reynolds, Folse and Jones 2006). It was argued earlier that consumers may experience regret on the process they employ to arrive at a purchase decision. Once consumers anticipate process regret, they consider the alternatives in a more systematic and careful manner before making a purchase decision.

There is evidence in the literature that when consumers anticipate regret, they work harder to reduce chances of post purchase regret (Zeelenberg 1999). The mind-set in this situation, where regret is anticipated, this research posits, is more towards the cognitive than the affective aspect. That regret is more cognitive in nature is well supported in previous scholarship (Matarazzo and Abbamonte 2008). Noting that regret is cognitive in nature, Zeelenberg, van Dijk and Manstead (1998) define regret "as a negative, cognitively determined emotion that we experience when realising or imagining that our present situation would have been better, had we acted differently". Zeelenberg and Pieters (2007) provide a very direct relation between the emotion of regret and cognition. They observe that regret produces a higher order of cognitive process. Extending these findings to the kind of touch consumers employ in a retail environment when they anticipate regret, this research posits that when consumers anticipate regret, they employ a more cognitive form of touch to evaluate products:

H11: Consumers' anticipated process regret is positively related to their need for cognitive touch

Consumer goals may change during a single shopping trip and are not highly specific the entire time. This change may be from a more generic to a more precise goal. An example given by Lee and Ariely (2006) is a thirsty consumer going out with an initial goal of quenching thirst, but which could translate into a more precise goal of drinking a certain kind of milk shake. The theoretical basis for this transition from an abstract to a precise goal includes the 'mind-set theory', 'construal level theory' and the 'two-stage consumer shopping goal theory'. Gollwitzer's (1990) 'mind-set theory' from goal orientation literature provides evidence for people's goals changing from uncertain to certain as the decision-making time approaches closer. According to Gollwitzer (1990), individuals in the first phase exhibit a deliberative mind-set, while in the second phase they have well established goals and their mind-set makes a transition to an implementation mode. Two similar process models of motivation have also been proposed in the 199s (Kruglanksi and Webster 1996; Carver and Scheier 1998). The 'construal level theory' postulated by Trope and Liberman (2003) also provides insight into the two-stage process employed by individuals before making a decision or doing a task. In their work, respondents normally construed the activity of locking a door as 'securing the house' if it was at a distant future, but as 'putting a key in the lock' if the activity was to take place the following day. More recently, Lee and Ariely (2006) have proposed a 'two-stage shopping goal theory', in which they show how goal concreteness increases during the process of shopping. According to this two-stage model, at the start of a shopping process consumers have ill-defined goals. However, as time goes into the shopping process, consumers' goals become more concrete. In other words, consumer goals become clearer and distinct only as the target of a purchase decision draws closer. Drawing a parallel to consumers' need for touch in a retail context, this research argues that even consumers who primarily shop for fun, novelty, excitement and sensation seeking, and display an affective form of touching products, may, closer to making a purchase decision, employ a more cognitive form of touching them. Further, the studies of Peck and Childers (2003b) show a high correlation between the constructs of affective and cognitive touch in a retail environment. Therefore, this research posits that even for consumers who rely mostly on affective touch for purchase decisions, their final product selection is influenced by an element of cognitive touch:

H12: Consumers' need for affective touch is positively related to their need for cognitive touch

3.6 Consequences of Consumers' Need for Affective and Cognitive Touch in a Retail Environment

The preceding sections 3.2 to 3.5 provided conceptualisation of the various antecedents of consumers' need for affective and cognitive touch in a retail environment, and the inter-relationships between them. This section provides conceptualisation of the relationship between consumers' need for affective and cognitive touch in a retail environment and impulse buying, satisfaction, brand loyalty and outcome regret.

Put simply, impulse buying is nothing but unplanned buying. Demonstrating the role the basic senses play in impulse buying more than three centuries ago, Berkeley (1709) noted that seeing and feeling are not the same. With specific reference to touching objects, Berkeley (1709) observed that to see is one thing and to feel is another, emphasising that people never see and feel the same object. Extending this concept to the retail environment, it can be argued that seeing and touching a product are not the same thing, and, because they are not the same, enabling consumers to touch products may have some additional benefits to retailers.

It is only recently that researchers have suggested possible linkages between touching products and impulse purchasing. Underhill (1999) notes that almost all impulse buying is a result of touching, hearing, smelling or tasting something when shopping in a retail outlet, though his research does not, explore what kind of touch consumers display in a retail environment translates into impulse buying. The studies of Ramanathan and Menon (2002) provide evidence that it is hedonic gratification that is the underlying factor in most impulse buying. They thus provide insight into the role touching products may have on impulse buying. Also, consumers with a high need for affective touch in a retail environment are confounded while selecting products if there is an information processing overload. Hausman (2000) argues that it is this phenomenon that reinforces the reward such consumers receive through alternate selection heuristics, like impulse buying. The work of Peck and Childers (2006) provides evidence that consumers with a high need for affective touch have a greater propensity to purchase more impulsively than consumers with a low need for affective touch. These studies, however, employ a median split, thus dichotomising the dependent variable of consumers' need for affective touch. Dichotomising variables in such studies has been shown to have negative consequences, as a result of which Irwin and McClelland (2003) suggest avoiding such splitting of variables to divide consumers into two groups. As an extension to the conceptualisation developed, and to test the relationship without dichotomising the continuous predictor variable, the following hypothesis will be tested in this research:

H13: Consumers' need for affective touch is positively related to impulse buying

Decision satisfaction and consumption satisfaction have been identified as separate individual constructs in literature. Moreover, it has been established that it is decision satisfaction that precedes consumption satisfaction (Heitmann et al. 2007). This is in contrast to anticipated regret, where this research noted that it is anticipated outcome regret that precedes anticipated process or decision regret.

Need for affective touch in a retail environment is a desire to fulfil the need for fun and novelty during a shopping experience. When these needs are met in a retail-shopping environment, research has shown that such consumers experience entertainment as well as enjoyment with their goals being achieved (Hirschman and Holbrook 1982). Consumers have also been shown to be uplifted when their needs for fun and novelty are fulfilled (Hausman 2000). Conceptual support, therefore, exists for a link between affective touch in a retail environment and decision satisfaction.

Literature has long established a link between cognition and satisfaction in the consumer behaviour context (Folkes 1984). The theoretical basis for cognitive information processing among consumers can be traced to the 'attribution theory' (Heider 1958), which states that people act rationally and use causal inferences to make decisions. Cognitively oriented consumers, therefore, act rationally and look for utilitarian value while evaluating products before purchasing them. This utilitarian appraisal has been shown by Mano and Oliver (1993) to be a significant determinant of satisfaction. Cognitively oriented consumers are concerned with purchasing products in a timely and efficient manner. This, as Childers, Carr, Peck and Carson (2001) state, enables these cognitively oriented consumers to achieve goals with minimum of irritation. Drawing upon support in literature that consumers who employ a cognitive thought process experience satisfaction with the decisions they make, and extending the same rationale to cognitive need for touch in a retail environment, this research hypothesises that consumers who employ cognitive touch while evaluating products in a retail environment experience satisfaction with the decision-making process.

Furthermore, the theoretical basis for the positive relationship between both consumers' need for affective and cognitive touch in a retail environment and that of decision satisfaction is drawn primarily from the 'two-appraisal' model of evaluating satisfaction (Oliver 1989), the antecedents of which are both affective and cognitive in nature. Through a series of three studies, Oliver (1994) further shows that among others, both affective and cognitive systems are determinants of satisfaction. Drawing a parallel between the above studies and consumers' need for affective and cognitive touch in a retail environment, this research hypothesises the following.

H14: Consumers' need for affective touch is positively related to decision satisfaction

H15: Consumers' need for cognitive touch is positively related to decision satisfaction

Until a few decades ago, research focused only on the consumption experience of consumers. For example, Howard and Sheth (1969) define consumer satisfaction from the point of view of the consumption experience. Oliver (1981) also defines consumer satisfaction along the same lines, with the consumption experience being the central concept. This makes consumer satisfaction very outcome oriented. Other researchers, though, have tried to separate the satisfaction construct into decision and consumption. Yi (1991) notes that viewing satisfaction as a process-oriented approach is more useful than viewing satisfaction as just an outcome-oriented approach. More recently, the work of Heitmann et al. (2007) clearly shows that consumption satisfaction is preceded by decision satisfaction. The work of these researchers notes that possessing convincing rationale for the selection of products affects how these products are viewed in the post-consumption period. As dissatisfaction is relative to the amount of cognitive dissonance, the greater the satisfaction with the decision-making process, the greater should be the post-consumption satisfaction. The previous section posited a direct positive effect between consumers' need for affective and cognitive touch and decision satisfaction. With respect to consumption satisfaction, this research conceives of s consumers' need for affective and cognitive touch in a retail environment as an early antecedent of consumption satisfaction. The evaluative process has been shown in research to influence overall satisfaction positively. Empirical evidence has been provided by researchers to show that evaluative process is an essential factor influencing overall satisfaction levels among consumers (Tse and Wilton 1988; Hunt 1997). Drawing on these studies and mainly those of the works of Yi (1991) and Heitmann et al. (2007), this research posits that it is the satisfaction in the psychological and evaluative process that precedes outcome or consumption satisfaction. In other words, this research hypothesises the following:

H16: Decision satisfaction is positively related to consumption satisfaction

Outcome satisfaction is a form of cumulative customer satisfaction. This research posits that consumers' need for touch in a retail environment is one of the early antecedents of brand loyalty. Consumers' need for both affective and cognitive touch in a retail environment first causes satisfaction with the decision-making process. This in turn leads to outcome satisfaction in the form of consumption satisfaction. It is this consumption satisfaction that is the immediate determinant of brand loyalty.

Justification for this conceptualisation comes from the work of Bloemer and Kasper (1995), who showed brand loyalty to be a cause of explicit evaluative and extensive decision-making processes. Brand loyalty occurs when the brand is evaluated positively. This positive evaluation in a retail environment is made all the more possible when consumers are encouraged to touch products, either affectively or cognitively, depending on their personality, lifestyle traits, goal orientation and product factors. Once this positive evaluation is made, consumers are happy with the decision-making process. This satisfaction with the decision-making process leads to consumption satisfaction, which in turn leads to brand loyalty.

The main immediate precursor to brand loyalty has long been identified as satisfaction with the brand. Fornell (1992) famously notes that “loyal customers are not necessarily satisfied customers, but satisfied customers tend to be loyal customers” reporting a positive relationship between the constructs of satisfaction and brand loyalty. Many researchers have also found a positive relationship between customer satisfaction and brand loyalty. The underlying theme, though, for the strong relationship between satisfaction and brand loyalty is the near overall satisfaction with the brand (Bolton 1998; Mittal and Kamakura 2001). Brand loyalty is a stage, therefore, reached when there is overall satisfaction with the brand. This research thus posits a positive and direct relationship between consumption satisfaction and brand loyalty. This leads to the following hypothesis:

H17: Consumption satisfaction is positively related to brand loyalty

The studies of Watson and Tellegen (1985) raise the possibility of positive and negative affects existing simultaneously. Their paradigm is useful to this research for two main reasons. First, it allows both satisfaction and dissatisfaction to co-exist at the same time. Second, it allows researchers to examine the possibility of moderate satisfaction, a state between satisfaction and dissatisfaction. Drawing upon their work, Oliver (1989) observes that the concept of satisfaction has not been properly addressed in literature, specifically noting that "satisfaction may be an incomplete dependent variable". Earlier, this research theorised that cognitive need for touch was positively associated with satisfaction. However, from the discussion above, it is clear that consumers do not experience only one state following an experience. As various dimensions are associated with each experience, consumers may experience satisfaction in a few dimensions and regret in others. Based on the work of Watson and Tellegen (1985), this research argues that consumers who employ cognitive touch in a retail environment and experience decision satisfaction may also simultaneously experience regret in certain other dimensions.

The reason why consumers who employ cognitive touch may experience regret may be due to the following. First, cognition involves effort, mainly mental effort. Second, cognitively selecting products consumes more time per product. While consumers employing affective touch may spend more time in store, consumers employing cognitive touch may employ more time per product as they evaluate a product thoroughly, and not just for the fun, enjoyment part of it. Though this gives them satisfaction as hypothesised earlier, a certain form of regret may be felt due to exhaustion from the mental and time-consuming search process employed. Lee and Cotte (2009) show that some consumers experience post purchase regret due to over-consideration. As demonstrated above, consumers employing affective touch in a retail environment do not experience post purchase or outcome regret due to over-consideration. However, consumers employing cognitive touch in a retail environment may experience outcome regret due to over-consideration, because of the time and effort they employ before making a purchase. This research therefore hypothesises the following:

H18: Consumers' need for cognitive touch is positively related to their outcome regret due to over-consideration

3.7 Summary

The dissertation's focus is thus restricted to consumers' information processing of information through their need to physically touch products i.e., haptic information processing in a retail environment. The antecedents of consumers' need for touch in a retail environment are restricted to personality traits, lifestyle traits, product factors and goal orientation while the consequences are restricted to impulse buying, satisfaction, brand loyalty and outcome regret. These are summarised as in Table 3.1.

Building on the literature review chapters, this chapter developed a conceptual framework and formulation of a set of eighteen research hypotheses. Hypotheses 1 to 3 refer to the relationship between the personality traits of perfectionism and the need to evaluate and between the personality traits of intuition, predisposition towards maximisation as the determinants of the product factor of consumer perceived knowledge. Hypotheses 4 to 8 relate to the determinants of consumers' choice goals, approach goal orientation and anticipated regret. Hypotheses 9 to 12 refer to the determinants of consumers' need for affective and cognitive touch in a retail environment. Finally, hypotheses 13 to 18 refer to the relationship between consumers' need for affective and cognitive touch in a retail environment, and its consequences for impulse buying, satisfaction, brand loyalty and outcome regret due to over-consideration. The eighteen research hypotheses have been summarised in Table 3.2 and diagrammatically represented in Figure 3.1. In sum, the theoretical basis for the development of the eighteen research hypotheses has been provided in this chapter.

Table 3.1 Summary of Dissertation's Focus

Category	Construct	Antecedent/Consequence of Consumers' Need for Touch in a Retail Environment
Personality Traits	1. Intuitive Ability 2. Perfectionism 3. Predisposition towards Maximisation 4. Self-monitoring 5. Need to Evaluate	Antecedents
Lifestyle Trait	1. Money Conservatism	Antecedent
Product Factor	1. Perceived Product Knowledge	Antecedent
Goal Orientation	1. Approach Goal Orientation 2. Anticipated Outcome Regret 3. Anticipated Process Regret	Antecedents
Impulse Buying	1. Impulse Buying	Consequence
Satisfaction	1. Decision Satisfaction 2. Consumption Satisfaction	Consequences
Brand Loyalty	1. Brand Loyalty	Consequence
Outcome Regret	1. Outcome Regret due to over-consideration	Consequence

Table 3.2 Summary of Research Hypotheses

H1	Intuition is positively related to consumers' perceived knowledge
H2	Perfectionism is positively related to consumers' need to evaluate
H3	Predisposition towards maximisation trait is positively related to consumers' perceived knowledge
H4	Self-monitoring is negatively related to consumers' approach goal orientation
H5	Consumers' perceived knowledge is positively related to their approach goal orientation
H6	Predisposition with maximising is positively related to consumers' anticipated outcome regret
H7	Money conservatism is positively related to consumers' anticipated outcome regret
H8	Consumers' anticipated outcome regret is positively related to their process regret
H9	Consumers' approach goal orientation towards shopping is positively related to their need for affective touch
H10	Consumers' need to evaluate is positively related to their need for cognitive touch
H11	Consumers' anticipated process regret is positively related to their need for cognitive touch
H12	Consumers' need for affective touch is positively related to their need for cognitive touch
H13	Consumers' need for affective touch is positively related to impulse buying
H14	Consumers' need for affective touch is positively related to decision satisfaction
H15	Consumers' need for cognitive touch is positively related to decision satisfaction
H16	Decision satisfaction is positively related to consumption satisfaction
H17	Consumption satisfaction is positively related to brand loyalty
H18	Consumers' need for cognitive touch is positively related to outcome regret due to over-consideration

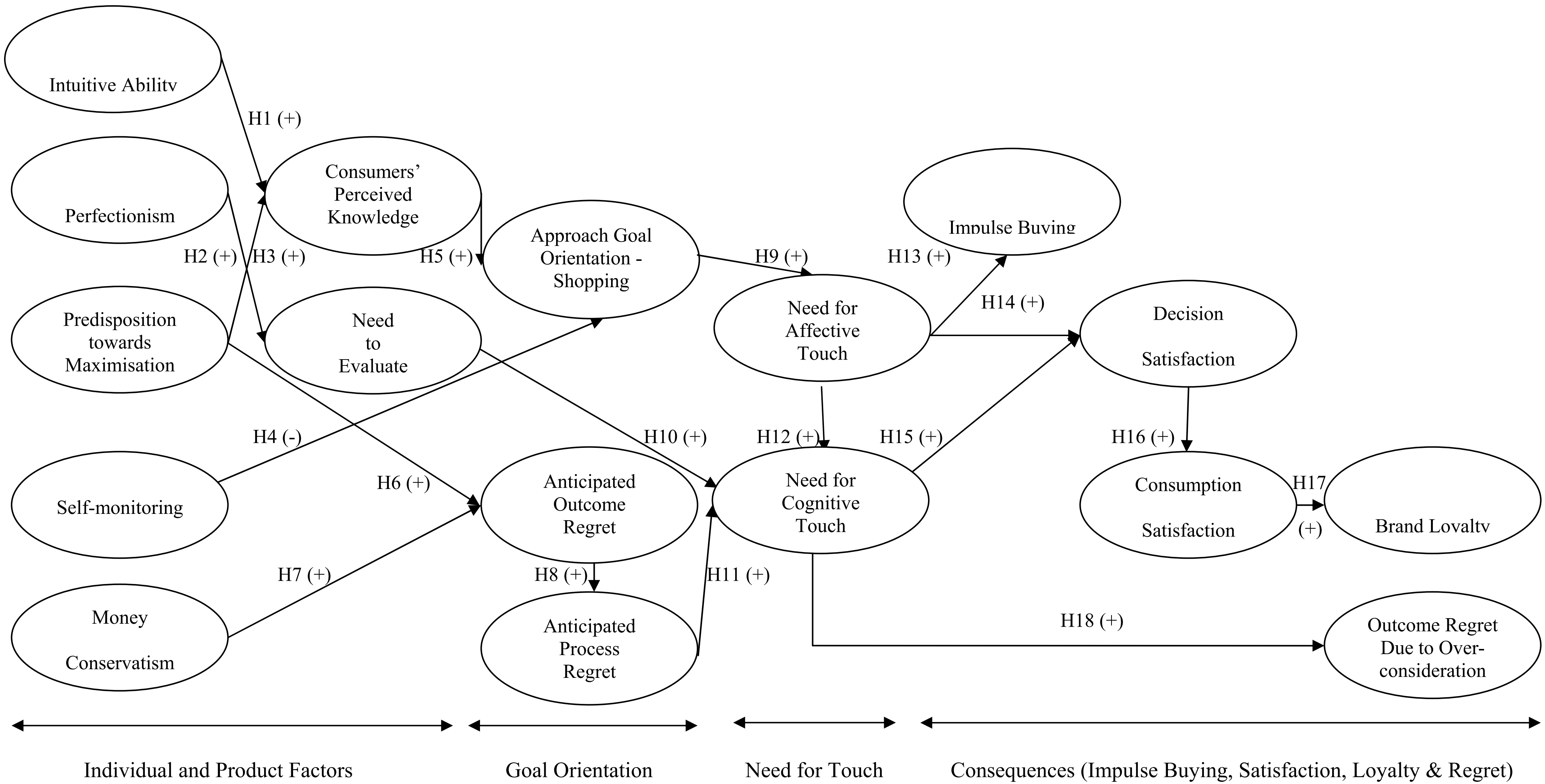

Figure 3.1 Conceptual Framework with Eighteen Hypotheses

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter aims to present and discuss the methodology that was employed to test the conceptual framework presented in the previous chapter. The philosophical underpinning, research design, development of the survey instrument, data collection and data analysis procedure are presented in detail.

The chapter comprises the following main sections. The following section (4.2) outlines the philosophical underpinning of this research, explaining why this was chosen and acknowledging its limitations. Section 4.3, under the theme of research design, explains the research setting and the unit of analysis. Retail outlets constitute the research setting while the individual consumers who shop in these retail outlets constitute the unit of analysis. Development of the survey instrument for the pre-study is described in Section 4.4. The results of the pre-test of the survey are presented in Section 4.5. The administration of the final survey instrument and how the data was collected are detailed in Section 4.6. The stages in the data analysis process, namely, construct validity, confirmatory factor analysis and hypotheses testing, are detailed in Section 4.7. Some limitations of the method adopted are mentioned in Section 4.8. A brief summary of this chapter is then presented in the end as Section 4.9.

4.2 Philosophical Underpinning of this Research

This research takes the ontological position that the reality of nature is apart from the researcher and an epistemological position that the researcher is independent from that which is being researched. The goal of adopting this ontology and epistemology is mainly to offer an unbiased presentation of facts that are empirically tested.

Calder and Tybout (1987), specifically in the context of consumer research, suggest three broad types of knowledge that can be produced. First is what they describe as 'everyday knowledge' in which people give social meaning to their own consumer behaviour. Second is 'scientific knowledge' where theories are constructed that are capable of being rigorously tested empirically. Third is 'interpretive knowledge', where consumer behaviour is analysed using a system of ideas of a given individual or group. This research employs Calder and Tybout's (1987) recommended method of understanding phenomena through 'scientific knowledge'. Hypotheses are developed based on what is already known in the fields addressed in the study. The hypotheses developed are then translated into operational terms and subjected to empirical analysis to confirm or reject the proposed hypotheses. Empiricism in this research takes the view that hypotheses must be subject to rigorous testing before they can be considered as knowledge (Bryman 2004).

The philosophical underpinning adopted in this research has been shown to have some limitations in the literature. Chief among them is the claim that there is a lot of stress on establishing causality and treating social science as natural science (Anderson 1989). Researchers have also argued that research like this would necessarily be mechanistic and deterministic in nature (Ozanne and Hudson 1989). Further, questions have also been raised regarding the ontology or how the nature of reality is viewed in such studies (Hirschman 1986). Many alternate forms of enquiry to the positivistic philosophy have been proposed. Hunt (1981) outlines a few of these methods, which include naturalistic inquiry, humanistic inquiry, ethnographic methods, historical methods, enchanted enquiry, critical theory, semiotics, relativism and critical relativism.

While acknowledging that various streams of knowledge can help us to understand consumer behaviour better, this research employs the method of development of hypotheses based on existing knowledge and then rigorous empirical testing of data for the following reasons. First, as Calder and Tybout (1987) point out, scientific knowledge alone uses a methodology that offers the possibility of scientific progress. Though other forms of knowledge have their merits, they stand apart from science till the point at which they can be subject to rules of empirical science. Second, as Calder, Philips and Tybout (1981) point out, it is not possible to induce a theory, no matter how large the pool of empirical data is. This is especially true in fields like consumer behaviour, where scientific knowledge must not be viewed as proven and scientific progress is not guaranteed (Calder and Tybout 1987). However, as Carnap (1953) points out, though verification of theory is not possible, accumulating successful empirical tests enables confirmation of a theory. A confirming instance is said to have been identified when the data is in line with the hypotheses proposed earlier. As Anderson (1983) notes, in this way, scientific progress is made possible "through the accumulation of multiple confirming instances obtained under a wide variety of circumstances and conditions". Third, empirical data provides probably the best method for refuting a theory or proving how a theory performs better than others previously proposed. This research does not claim to be the absolute truth but encourages sophisticated falsification (Lakatos 1970).

4.3 Research Design: Research Setting and Unit of Analysis

This research attempts to explore the possible antecedents and consequences of consumers' need for touch in a retail environment. The respondents, or the unit of analysis, therefore, consist of consumers who shop in retail outlets. In social science research, the individual is the most frequent unit of analysis (Corbetta 2003) and it is the unit of analysis in this research. This method of data collection is in line with established research (Bernard 2000), which advocates the use of the lowest unit of analysis for data collection. This approach to data collection is preferred as the researcher(s) can always aggregate the data collected at the individual level. This is not possible where data is collected at the group level.

4.4 Development of Survey Instrument

The development of the questionnaire comprised the following stages. First, all constructs and the various scales used to measure the constructs were reviewed. Where there existed more than one scale to measure the same construct in literature, the scale that was most closely related and useful to this research was selected. Following this, a senior academic specialising in this field of study reviewed the questionnaire in terms of its length and wording. While constructs like approach goal orientation, impulse buying, satisfaction, brand loyalty are well established in marketing and consumer behaviour literature and measured using two to four items, personality traits tend to have more items to measure them. The senior academic helped determine similar sounding items measuring a construct, which were deleted. These steps helped establish content (or face) validity for all the items included in this research. These steps are explained in detail in the sections below.

4.4.1 Short Review of Constructs and Choice of Scales Used

All constructs used in the questionnaire were taken from the existing literature. The items measuring the constructs were based on a 7-point Likert scale (1 = Strongly Disagree to 7 = Strongly Agree). A 7-point Likert scale was preferred to a 5-point Likert scale as research has shown that participants are likely to interpolate in the latter. It has also been established that using a 7-point Likert scale provides a more accurate measure of the respondent's true evaluation (Finstad 2010).

4.4.1.1. Intuitive Ability

Jung (1926) is one of the earliest psychologists to theorise intuition, which he characterised as one of the first modes of perfection to operate subconsciously. Based on 'Jungian theory', intuition is measured by Myers, McCaulley, Quenk and Hammer (1998) as a self-reported personality construct, using the 'intuitive-sensate' scale of MTBI. Theoretically, the 'intuitive-sensate' scale of MTBI attempts to capture the holistic nature of intuition. The MTBI scale attempts to tap an individual's preference for imagination, abstract relationships and possibilities over real facts. A different form of MBTI uses the 'thinking-feeling' Scale, where an individual’s penchant for logic while making decisions (thinking) is measured as opposed to an individual’s reliance on emotions (feeling). The ‘thinking-feeling’ scale, theoretically, is an attempt to reflect the affective side of intuition.

Pacini and Epstein (1999) have developed an improved version of ‘rational-experiential inventory’ (REI) scale to measure rational and experiential thinking styles. Both the rational and experiential subscales are further divided into subscales of ability and favourability. The ability subscales measure an individual’s belief in his/her own ability to employ rational thinking, while the favourability subscales measure an individual’s preference towards experiential thinking.

Exploring the nature and individual differences in intuition, Pretz and Totz (2007) use the MBTI and REI scales to further develop distinct aspects of intuition. A general measure of ‘Intuitive Ability’ was identified by them, and it is this scale that is used in this study to measure intuition. The original scale consists of five items as shown in Table 4.1.

4.4.1.2 Perfectionism

Perfectionism, which was initially thought of as a unidimensional construct (Burns 1980), was further developed in the 1990sto a multidimensional construct by various researchers. Two of the more recent scales measuring perfectionism, both popular with researchers, are the ‘multidimensional perfectionism scale’ (MPS) developed by Hewiitt and Flett (1991) which is abbreviated as MPS-HF, and the scale developed under the same name by Frost et al. (1990), commonly abbreviated as MPS-F. The two MPS scales, MPS-HF and MPS-F, have different approaches to measuring perfectionism. The MPS-HF uses a three-scale model composed of self-oriented, other-oriented and socially prescribed perfectionism. The MPS-F scale, on the other hand, uses a six-scale model, which includes concern over mistakes, personal standards, expectations from parents, criticism of parents, doubts regarding actions and organisation. Given their different approaches, researchers have to use both these MPS measures in order to measure the wide range of perfectionism constructs. Attempts to combine the nine scales into a single construct have been shown to be relatively inefficient (Enns and Cox 2002). This was attributed to the fact that there were overlapping constructs and very high correlations between the subscales.

In order to measure the constructs of perfectionism in a single questionnaire, Hill, Huelsman, Furr, Kibler, Vicente and Kennedy (2004) produce a new measure of perfectionism. The eight-scale measure of perfectionism was called the 'perfectionism inventory' (PI). The PI scale captured the important constructs of the two MPS scales and showed strong psychometric properties. It is this recent scale by Hill et al. (2004) that is used to measure perfectionism in this research (see Table 4.1).

4.4.1.3 Predisposition towards Maximisation

A term primarily used in economics, maximisation is commonly used to describe consumers whose goal is never to settle for the second best product, but who exert effort in searching for the best available option. Maximisation is, therefore, the desire to want the very best. The distinguishing characteristic of maximisers is that even if they are satisfied with the current option, they search for additional available options, hoping there will be something better than what they have in hand.

Pursuing the answer to the question whether some people are maximisers while others are satisficers, Schwartz et al. (2002) have developed the maximisation scale. This scale is developed primarily to measure consumers' predisposition towards maximisation. The scale employs thirteen items through which the tendency to maximise is measured. Items include day-to-day activities like watching TV, shopping experience and satisfaction in a job. The construct, therefore, measures consumers' inclination to seek for better alternatives even while being relatively satisfied with the current option. It is this scale, as seen in Table 4.1 that is used to capture the construct of predisposition towards maximisation in this research.

4.4.1.4 Self-monitoring

Developed over a period of three decades, the 'theory of self-monitoring' concerns itself with monitoring and control of expressive behaviour (Oh and Kilduff 2008). Research exploring self-monitoring has generally represented people with two different interpersonal orientations: those high in self-monitoring and those low in self-monitoring. High self-monitors strive to adapt to specific situations by changing their behaviour. By contrast, low self-monitors do not change their behaviour just because of specific situations and are more internally driven. The underlying phenomenon driving this distinct public behaviour of high and low self-monitors is how these two groups of people think differently about social interactions. High self-monitors want to produce successful social interactions and change their behaviour in public to achieve this, while low self-monitors do not change their behaviour to produce successful social interactions.

The comprehensive self-monitoring scale developed by Snyder (1974) is used in this research. The items used in the pre-study to measure this construct are detailed in Table 4.1.

4.4.1.5 Need to Evaluate

It has been well established in literature that there is a difference in consumer proneness to engage in evaluating products in a retail environment. Underlying the need to study how consumers evaluate products across varying situations, Vieira (2009) notes that research in this field will help marketers better understand and predict certain buying behaviour patterns. Those with a high need to evaluate tend to rely less on outside influences like advertisements, and more on their own judgment. The studies of Holbrook (2006) show that those with a high need to evaluate gather all relevant information and form their evaluations based on this.

This research uses the need to evaluate scale as developed by Jarvis and Petty (1996). This scale contains nine items as shown in Table 4.1. Their studies show this scale to have a single factor structure, high internal consistency as well as convergent and discriminant validity. Their scale has been used widely in consumer behaviour research and is therefore adopted for this research.

4.4.1.6 Money Conservation

Consumer behaviour is influenced not only by personality traits but also by lifestyle traits. While the constructs of intuitive ability, perfectionism, predisposition towards maximisation and self-monitoring are personality traits, money conservatism is a lifestyle trait. Consumers with a disposition towards money conservatism are very careful with their money and are high savers. In the retail context, these consumers behave like tightwads and part with their money only after careful consideration and evaluation of product(s). Drawing on the work of Rick et al. (2008), consumers with a disposition towards money conservatism can be said to anticipate pain during their decision-making process.

The money conservation scale employed by Troisi et al. (2006) has been used in this study. The adapted scale used in this research contains four items (see Table 4.1). Several features are captured in this scale. First, the critical self-evaluation as to whether the individual's family/friends see him/her to use money carefully and well is captured. Second, what the individual thinks of his/her ability to budget and save money is captured in the next two questions. Finally, whether the individual pays his/her bills immediately in order to avoid interest or penalties is recorded in the questionnaire.

4.4.1.7 Consumers' Perceived Knowledge

There has been extensive research into the prior knowledge of consumers and how this knowledge influences their shopping decisions (Brucks 1985; Park, Mothersbaugh and Feick 1994). Brucks (1985) notes that the knowledge consumers have on products can be measured in three different ways. First is the measurement perception of consumers as to how much they know about the products. The second is the amount or type of information that is actually stored in the mind of the consumer. Third and finally, consumer knowledge can be measured by the actual amount of purchase made or the usage experience associated with the product in question.

Broadly though, in research using survey data, consumer knowledge can be divided into two categories, objective and subjective (Park et al. 1994). While objective knowledge is the long-term accurate product class information stored in the memory, subjective knowledge is self-assessed and is a measure of how much consumers think they know about a product class. Though self-assessed knowledge has been used as a proxy for objective knowledge, subjective knowledge only tells us about the confidence a consumer has in his/her knowledge. It is this confidence that enables consumers to interpret, evaluate and use information (Johnson and Russo 1984).

This research attempts to trace the immediate predecessor of approach goal orientation, a key motivational state where consumers are eager and excited to go shopping. Consumers with approach goal orientation need not necessarily be so because of objective knowledge alone. Moreover, this research is not concerned with a specific product but with consumer behaviour in a retail environment in general. For the above reasons, this research measures consumers' subjective knowledge and not their objective knowledge.

Many researchers use a single item scale to measure subjective knowledge (Denisi and Shaw 1977; Rao and Monroe 1988) while a few others create ad-hoc scales with two to four items to measure the construct (Biswas and Sherrell 1993). This research adapts the subjective knowledge measurement scale developed by Flynn and Goldsmith (1999). The scale contains three items (see Table 4.1), and it has been found to be a valid and reliable measure of perceived knowledge and also suitable for a variety of product fields, thereby achieving measurement standardisation. Another advantage of this scale is that consumers' knowledge of the buying process is also included. A certain amount of objectivity is also included in this scale as consumers are asked not only to rate how knowledgeable they perceive themselves to be but also whether their friends/loved ones consult them before making purchase decisions.

4.4.1.8 Approach Goal Orientation

Approach-oriented motivational states include those of achievement motivation, self-actualisation, hope, joy, interest, expectation and desire. These states are welcomed by individuals, unlike anxiety-provoking states such as fear and frustration. Consumers with approach goal orientation have been shown to be eager and excited to go shopping, enquiring and inherently motivated by sensation seeking.

Approach goal orientation, a construct well established in literature (Wang et al. 2010), was measured using three items, as detailed in Table 4.1. The first item measured how eager and excited respondents were at the prospect of shopping. The second item measured how much respondents looked forward to and were thrilled at the prospect of going shopping. The last item measured how much interest the respondents took in shopping.

4.4.1.9 Anticipated Outcome Regret

Making purchase decisions is becoming increasingly difficult for consumers, mainly due to the number of alternatives from which to choose. Drawing upon the 'means-end theory' in the context of consumer behaviour, consumers exhibit a tendency to evaluate products based on the ability of those products to fulfil the desired purpose. The work of Karla and Shi (2010) points out that consumers have varying levels of risk aversion. In anticipated outcome regret, consumers look forward to and foresee whether the purchase they are going to make will undergo any change in significance over a period of time.

This research has adapted the scale developed by Lee and Cotte (2009) to measure anticipated outcome regret due to change in significance. The scale contains four items, as shown in Table 4.1. Noting that this dimension has never been explored in previous research, Lee and Cotte (2009) argue that regret due to the change in significance does not involve comparison between chosen and rejected alternatives.

4.4.1.10 Anticipated Process Regret

Regret arises not just because of evaluation of outcomes, but also because of evaluation of the process. Connolly and Zeelenberg (2002), who propose the 'decision-justification theory', observe that individuals feel process regret arises because of having made a bad choice. In other words, consumers who are able to anticipate outcome regret, take into account regret caused from previous shopping experiences. These consumers consciously put in more thought and effort to acquire more information about product items before making a purchase decision. In other words, consumers who anticipate outcome regret tend to anticipate process regret due to under-consideration, and, therefore, put in more thought and effort before making a purchase decision.

This research has adapted the scale developed by Lee and Cotte (2009) to measure anticipated regret due to under-consideration. The scale contains four items, as shown in Table 4.1. Consumers anticipating process regret have been shown to reconsider the buying process in itself. Consumers who anticipate process regret, therefore, put in more thought, expend more effort and acquire more information in order to prevent regret due to under-consideration. Lee and Cotte (2009) note that regret due to under-consideration can also be attributed to internal and external factors. However, consumers anticipating process regret due to under-consideration mostly tend to blame themselves. This is the reason why only one out of the four items that measure the construct concern blame attributed to others.

4.4.1.11 Need for Affective Touch

The semantic differential scale developed by Osgood et al. (1957) had long been used to evaluate consumption behaviour and the attitudes of consumers. This scale, however, measures consumer behaviour and attitudes only on one evaluative dimension, and it has been established in recent decades that consumer behaviour involves both utilitarian and hedonic components (Babin et al. 1994). Consumers who seek sensory stimulation by touching products in a retail store mainly for fun, enjoyment and pleasure are defined as having high need for affective touch in this research. These consumers do not have a salient purchase goal objective, but shop in retail environments to enjoy high levels of fun and self-indulgence (Holbrook and Hirschman 1982). Experiencing sensory and experiential pleasure by touching a product is, therefore, the main objective of consumers displaying affective or hedonic touch (Batra and Ahtola 1990).

To measure this form of affective touch displayed by consumers in a retail environment, Peck and Childers (2003b) have developed a need for autotelic (or affective, in this research) touch scale. The scale has been used extensively by researchers studying consumers' need for touch in a retail environment. It is this six-item scale that has been used to measure affective touch in this study (see Table 4.1).

4.4.1.12 Need for Cognitive Touch

In sharp contrast to consumers who shop for fun and display affective touch in a retail environment, consumers who treat shopping as work view the process as a strictly utilitarian one. Hirschman and Holbrook (1982) define consumers who display cognitive touch in a retail environment as those who touch products with a specific goal oriented outcome. Examples of cognitive touch include touching products to know about their texture, smoothness, price and quality – all purely with a salient comparative and/or purchase goal objective. Consumers employing cognitive touch in a retail environment therefore do so in order to gather enough information to arrive at a purchase decision, now or in the future.

This research uses the six-item need for instrumental touch scale developed by Peck and Childers (2003b) in order to measure consumers' need for cognitive touch in a retail environment (see Table 4.1).

4.4.1.13 Impulse Buying

For over six decades, researchers in retailing and consumer behaviour have studied the phenomenon of impulse buying with great interest. Stern (1962) classifies impulse buying into four categories – pure, reminder, suggestion and planned. As the name suggests, pure impulse buying was considered to be the purest form of impulse buying as it broke the normal purchase pattern. Youn and Faber (2000) identify three personality traits – lack of control, stress reaction and absorption – that characterise impulse purchasers. There is limited evidence in research pointing to a relationship between sensation seeking and impulse purchasing (Underhill 1999).

Many researchers have studied impulse buying, and a number of scales have been developed to measure it. This research uses three items to measure impulsive buying, all drawn from the highly cited works of Rook and Fisher (1995) and Weun, Jones and Beatty (1997). The items measure the propensity of respondents to buy things they do not need and things they do not intend to buy and how much they consider themselves to be impulse purchasers (see Table 4.1).

4.4.1.14 Decision Satisfaction

One of the central concepts in the field of consumer behaviour and marketing has been that of satisfaction. Stressing the importance of a process oriented approach in measuring customer satisfaction, Yi (1991) observes that this approach appeared better than that of an outcome oriented one. The reason why a process oriented approach is important is that it covers the entire consumption experience and draws on the psychological, evaluative and perceptive processes, thereby making it a comprehensive measure. Decision satisfaction is the satisfaction a consumer experiences with the buying process in itself.

This research uses the scale as used in Heitmann et al. (2007) to measure decision satisfaction. The scale contains three items, as shown in Table 4.1. Heitmann et al. (2007) show that decision satisfaction precedes consumption satisfaction. The scale measures how satisfying and interesting consumers find the process of deciding which items/products to purchase in a retail store.

4.4.1.15 Consumption Satisfaction

Outcome satisfaction, or in other words, consumption satisfaction, is a cumulative, overall form of customer satisfaction. The focus of early research in satisfaction is mainly on the consumption experience of consumers (Howard and Sheth 1969; Oliver 1981). Consumption satisfaction is satisfaction with the consumption experience, that is, how satisfied consumers are with the product purchased. In this form of satisfaction, the stress is on the price, quality, durability and hedonic properties of the product, and whether the consumers feel satisfied with these.

This research uses the scale used by Heitmann et al. (2007) to measure consumption satisfaction. The scale contains four items as seen in Table 4.1. The items measure how satisfied consumers are with their choices/purchases from previous shopping trips. The emphasis is mainly on the product, and not the decision-making process.

4.4.1.16 Brand Loyalty

A strategy whereby marketers develop a long term relationship with customers, brand loyalty has been one of the key marketing concepts, dating back nearly a century (Copeland 1923). Early studies viewed repeat purchase as brand loyalty. Brand loyalty is now defined as the price-premium consumers are willing to pay to purchase a given brand (Park and Srinivasan 1994). The higher the price-premium, the more loyal consumers are said to be to the brand. This approach in defining brand loyalty is a mix of behavioural and attitudinal measures.

Various researchers have studied and measured brand loyalty and it is an established construct in literature (Day 1969; Jacoby and Chestnut 1978; Krishnamurthi and Raj 1991; Bloemer and Kasper 1995). This research uses three items commonly used to capture brand loyalty among respondents. The items used to measure brand loyalty in this research first capture if the respondents buy the same brands they have always bought and second, whether they change brands frequently. Then, to further strengthen the construct, the third item measures the degree to which the respondents recommend the brands they buy to their family and friends. Thus brand loyalty is captured in a holistic manner (see Table 4.1)

4.4.1.17 Outcome Regret due to Over-consideration

Regardless of the outcome of the purchase decision made, some consumers regret that they put in too much time and/or effort into the buying process (Lee and Cotte 2009). This leads to such consumers experiencing regret due to over-consideration. These consumers feel that they could have put in less time and/or effort and still achieved the same or even a better outcome. One of the reasons for regret due to over-consideration is gathering of information that is not required, thereby resulting in wasting time and exerting greater effort than was required. Given the characteristics of those who feel outcome regret due to over-consideration, this research hypothesised that consumers with a cognitive disposition are more likely than those with affective disposition to witness this kind of regret.

This research uses the scale developed by Lee and Cotte (2009) to measure outcome regret due to over-consideration. The scale contains four items, as shown in Table 4.1. The items that capture regret due to over-consideration lay the blame on the respondent alone. Unlike regret due to under-consideration, where there is an element of attributing blame to others, in outcome regret due to over-consideration the consumer takes full responsibility for expending too much time, thought and effort while making a purchase decision.

Table 4.1 Initial Constructs with Items

Construct with Items	
	Intuitive Ability
IAY1	When it comes to trusting people, I can usually rely on my instincts/gut feelings
IAY2	I can usually feel when a person is right or wrong, even if I can't explain how I know
IAY3	My snap judgments are probably better than most others
IAY4	I rely on gut feelings to make less mistakes
IAY5	Using my gut feelings usually works well for me in figuring out problems in my life
	Perfectionism
PER1	I am very embarrassed by failure
PER2	I get upset when other people do not maintain the same standards I do
PER3	I compare my work to others and often feel inadequate
PER4	I always like to be organized and disciplined
PER5	My parent(s)/loved ones hold me to high standards
PER6	I tend to deliberate before making up my mind
PER7	I spend a lot of time worrying about things I've done, or things I need to do
PER8	I drive myself rigorously to achieve high standards
	Predisposition towards Maximisation
PTM1	When I watch TV, I often channel surf, scanning through the available options even while attempting to watch one programme.
PTM 2	When I am in the car/cab listening to the radio, I often check other stations to see if something better is playing, even if I am relatively satisfied with what I'm listening to
PTM 3	I treat clothing like relationships; I expect to try a lot on before I get the perfect fit
PTM 4	No matter how satisfied I am with my job, it's only right for me to be on the lookout for better opportunities
PTM 5	I often dream about living in ways that are quite different from my actual life
PTM 6	I'm a big fan of lists that attempt to rank things (the best movies, the best singers, the best sportsmen, the best novels etc.)
PTM 7	I often find it difficult to shop for a gift for a friend
PTM 8	When shopping, I have a hard time finding clothing I really love
PTM 9	Renting videos is really difficult, I'm always struggling to pick the best one
PTM 10	I find that writing is very difficult, even if it's just writing a letter to a friend, because it's so hard to word things just right. I often do several drafts of even simple things
PTM 11	No matter what I do, I have the highest standards for myself
PTM 12	I never settle for second best
PTM 13	Whenever I'm placed with a choice, I try to imagine what all the other possibilities are, even ones that aren't present at the moment
	Self-monitoring
SMG1	I usually worry about making a good impression
SMG2	I am concerned about the way I present myself when in the presence of others
SMG3	I am concerned what other customers think of me during shopping
SMG4	I'm concerned about the way I present myself when in the presence of others
SMG5	I'm self-conscious about the way I look in front of others
	Need to Evaluate
NTE1	I want to know exactly what is good and bad about everything
NTE2	I often do not remain neutral about complex issues
NTE3	Even if something does not affect me, I usually determine if it is good or bad
NTE4	There are very few things for which I do not have a preference
NTE5	I have many more opinions than the average person
NTE6	I would rather have a strong opinion than no opinion at all
NTE7	I pay a lot of attention to whether things are good or bad
NTE8	I like to decide that new things are really good or really bad
NTE9	I am pretty much considerate to many important issues
	Money Conservatism
MCM1	My family/friends consider me to use my money very carefully
MCM2	I budget my money very well
MCM3	I am proud of my ability to save
MCM4	I pay my bills immediately in order to avoid interest or penalties

Construct with Items	
	Consumers' Perceived Knowledge
CPK1	I have a lot of knowledge on most products
CPK2	My friends/relatives often consult me before shopping
CPK3	I make satisfactory retail purchases based only on my own knowledge
	Approach Goal Orientation
AGO1	I am eager and excited to go shopping
AGO2	I look forward and am thrilled at the prospect of going shopping
AGO3	I take great interest in shopping
	Anticipated Outcome Regret
AOR1	I tend to regret buying certain products because it was not as important to me as I thought it would be
AOR2	I wish I hadn't bought some products because it is now useless to me
AOR3	I regret some purchases because the products never served its purpose
AOR4	I tend to regret some purchases because I did not need the product
	Anticipated Process Regret Due to Change in Significance
APR1	With more information, I feel I could make better shopping decisions
APR2	I feel I do not put enough consideration into buying a product
APR3	With more effort, I feel I could have made better shopping decisions
APR4	I regret not putting enough thought into previous shopping decisions
	Need for Affective Touch
NAT1	When walking through stores, I can't help touching all kinds of products
NAT2	Touching products can be fun
NAT3	When browsing in stores, it is important for me to handle all kinds of products
NAT4	I like to touch products even if I have no intention of buying them
NAT5	When browsing in stores, I like to touch lots of products
NAT6	I find myself touching all kinds of products in stores
	Need for Cognitive Touch
NCT1	I place more trust in products that can be touched before purchase
NCT2	I feel more comfortable purchasing a product after physically examining it
NCT3	If I can't touch a product in the store, I am reluctant to purchase the product
NCT4	I feel more confident making a purchase after touching a product
NCT5	The only way to make sure a product is worth buying is to actually touch it
NCT6	There are many products that I would only buy if I could handle them before purchase
	Impulse Buying
IBG1	I buy things I do not need
IBG2	I buy things I did not plan to buy
IBG3	I consider myself an impulse purchaser
	Decision Satisfaction
DSN1	I find the process of deciding which product/items to buy satisfying in a retail store
DSN2	I find the process of deciding which product to buy interesting
DSN3	I am usually satisfied with my experience of deciding which products options to choose
	Consumption Satisfaction
CSN1	On hindsight, my choices during shopping turn out better than expected
CSN2	I am usually satisfied with my purchases in a retail store
CSN3	I often return products I purchased in retail stores
CSN4	I often exchange products I have purchased in retail stores
	Brand Loyalty
BLY1	I generally buy the same brands that I have previously bought
BLY2	I do not change brands frequently
BLY3	I recommend the brands I buy to my family members and friends
	Outcome Regret Due to Over-consideration
ORT1	I usually expend too much effort while making shopping decisions
ORT2	I waste too much time making shopping decisions
ORT3	I think I put too much thought in the buying process
ORT4	I feel that I invest too much time in buying products

4.5 Pre-study

Though all the main measures were taken from the existing literature, pre-tests were carried out with three specific objectives.

The first objective was to refine the scales and to check if the measures were reliable before carrying out the main study. The second objective was to develop a concise questionnaire which consumers taking part in the final survey would be able to complete in a reasonable amount of time. A shorter questionnaire was preferred, especially because the survey was not carried out in a controlled environment, like a classroom. Researchers have previously used shorter scales due to time constraints on the part of the respondents, thereby obtaining higher response rates to the questionnaires. Using shorter scales has been shown to lead to higher completion rates (Epstein, Pacini, Denes-Raj and Heier 1996; Bosnjak, Galesic and Tuten 2007). The third and most important reason why pre-tests were carried out was to ensure that shorter scales were used in the final questionnaire, with no construct being measured using more than 4 items, as recommended for researchers using SEM (Iacobucci 2010).

4.5.1 Procedure Employed

The pre-study was carried out in a controlled environment. A convenience sample was employed for the pre-study that consisted of a mix of student and non-student population. A paper-based questionnaire was distributed to those who participated in the pre-study. Each construct in full was distributed and filled by an average of 50 consumers. The responses were scored on a seven-point Likert scale, ranging from Strongly Disagree to Strongly Agree. Since the respondents were through invitation, a near 100% response rate was obtained for each of the questionnaires. Reliability analysis was carried out for each construct, as described in Table 4.1. The Cronbach's alpha values from the pre-study are provided in Table 4.2.

Table 4.2 Initial Cronbach's Alpha Values from the Pre-study

Construct	Number of Items	Cronbach's Alpha
Intuitive Ability	5	0.801
Perfectionism	8	0.686
Predisposition towards Maximisation	13	0.718
Self-monitoring	5	0.702
Need to Evaluate	9	0.803
Money Conservatism	4	0.815
Consumers' Perceived Knowledge	3	0.782
Approach Goal Orientation	3	0.944
Anticipated Outcome Regret	4	0.785
Anticipated Process Regret Due to Change in Significance	4	0.783
Need for Affective Touch	6	0.845
Need for Cognitive Touch	6	0.784
Impulse Buying	3	0.831
Decision Satisfaction	3	0.670
Consumption Satisfaction	4	0.596
Brand Loyalty	3	0.647
Outcome Regret Due to Over-consideration	4	0.895

4.6 Development and Administration of the Final Survey Instrument

Following the pre-study, this section details the development and administration of the final questionnaire, which was developed in accordance with the suggestions of Iacobucci (2010). The sampling method and the data collection procedure employed are also outlined in this section.

4.6.1 Development of the Final Questionnaire

The development of the final questionnaire involved two steps. First, in order to reduce the number of items measuring each construct all possible combinations of items measuring the construct were assessed. Second, if two items in a construct sounded similar, only one was retained. An example of two statements sounding the same while measuring the same construct of consumers' need for affective touch is: 'When walking through stores, I can't help touching all kinds of products' and 'I find myself touching all kinds of products in stores'. In this case, the former statement was retained and the latter dropped to avoid possible duplication.

The dropping of items to avoid duplication did not reduce the reliability of the measures significantly. Moreover, dropping some items did not reduce the various dimensions measuring the construct in the final questionnaire. For examples, items measuring intuition captured both respondents' reliance on instincts and also how they perceived their snap judgments to be in comparison with others. The important aspects of perfectionism, namely due to self, because of loved ones and perfectionism expected of others, were also captured. Perceived product knowledge was measured using items covering both perceived knowledge levels and whether respondents were consulted by friends and loved ones before making a purchase decision. All important dimensions measuring the constructs were thus retained in the final questionnaire.

Table 4.3 provides details of the items which best described the constructs in the study and which were retained in the final questionnaire. For convenience, the retained items have been numbered consecutively. The Cronbach's alpha values of the constructs as based in the pre-study are also detailed in Table 4.3. In some cases, a small decrease was witnessed in the Cronbach's alpha values but was still above acceptable standards (Netemeyer, Bearden and Sharma 2003). The main construct under study in this research, consumers' need for affective and cognitive touch, was measured using four items in the final study. Most other constructs in the final study were measured using three items. Items that are very well established in the existing literature, such as satisfaction and brand loyalty, were measured using two items. The choice of the number of items measuring the constructs was in line with the recommendation of Iacobucci (2010).

Table 4.3 Cronbach's Alpha Values for Items Retained in the Final Questionnaire

Constructs with Retained Items		Cronbach's Alpha
	Intuitive Ability	0.693
IAY1	When it comes to trusting people, I can usually rely on my instincts / gut feelings	
IAY2	My snap judgments are probably better than most others	
	Perfectionism	0.616
PER1	I am very embarrassed by failure	
PER2	I get upset when other people do not maintain the same standards I do	
PER3	My parent(s)/loved ones hold me to high standards	
PER4	I drive myself rigorously to achieve high standards	
	Predisposition towards Maximisation	0.615
PTM 1	When I watch TV, I often channel surf, scanning through the available options even while attempting to watch one programme.	
PTM 2	When I am in the car/cab listening to the radio, I often check other stations to see if something better is playing, even if I am relatively satisfied with what I'm listening to	
PTM 3	I'm a big fan of lists that attempt to rank things (the best movies, the best singers, the best sportsmen, the best novels etc.)	
	Self-monitoring	0.693
SMG1	I usually worry about making a good impression	
SMG2	I am concerned about the way I present myself when in the presence of others	
SMG3	I am concerned what other customers think of me during shopping	
	Need to Evaluate	0.648
NTE1	I have many more opinions than the average person	
NTE2	I pay a lot of attention to whether things are good or bad	
NTE3	I am pretty much considerate to many important issues	
	Money Conservatism	0.770
MCM1	My family/friends consider me to use my money very carefully	
MCM2	I budget my money very well	
MCM3	I am proud of my ability to save	
	Consumers' Perceived Knowledge	0.782
CPK1	I have a lot of knowledge on most products	
CPK2	My friends/relatives often consult me before shopping	
CPK3	I make satisfactory retail purchases based only on my own knowledge	
	Approach Goal Orientation	0.965
AGO1	I am eager and excited to go shopping	
AGO2	I look forward and am thrilled at the prospect of going shopping	
	Anticipated Outcome Regret	0.794
AOR1	I tend to regret buying certain products because it was not as important to me as I thought it would be	
AOR2	I wish I hadn't bought some products because it is now useless to me	
AOR3	I tend to regret some purchases because I did not need the product	
	Anticipated Process Regret Due to Change in Significance	0.826
APR1	I feel I do not put enough consideration into buying a product	
APR2	With more effort, I feel I could have made better shopping decisions	
APR3	I regret not putting enough thought into previous shopping decisions	
	Need for Affective Touch	0.821
NAT1	When walking through stores, I can't help touching all kinds of products	
NAT2	Touching products can be fun	
NAT3	I like to touch products even if I have no intention of buying them	
NAT4	When browsing in stores, I like to touch lots of products	
	Need for Cognitive Touch	0.694
NCT1	I place more trust in products that can be touched before purchase	
NCT2	I feel more comfortable purchasing a product after physically examining it	
NCT3	If I can't touch a product in the store, I am reluctant to purchase the product	
NCT4	The only way to make sure a product is worth buying is to actually touch it	
	Impulse Buying	0.831
IBG1	I buy things I do not need	
IBG2	I buy things I did not plan to buy	
IBG3	I consider myself an impulse purchaser	
	Decision Satisfaction	0.876
DSN1	I find the process of deciding which product/items to buy satisfying in a retail store	
DSN2	I find the process of deciding which product to buy interesting	
	Consumption Satisfaction	0.724
CSN1	On hindsight, my choices during shopping turn out better than expected	
CSN2	I am usually satisfied with my purchases in a retail store	
	Brand Loyalty	0.904
BLY1	I generally buy the same brands that I have previously bought	
BLY2	I do not change brands frequently	
	Outcome Regret Due to Over-consideration	0.953
ORT1	I waste too much time making shopping decisions	
ORT2	I think I put too much thought in the buying process	

Note: The Appendix provides an overview of the main questionnaire.

4.6.2 Targeted Respondents and Sample Size

This research attempts to find the antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. No particular product was selected for study in this research. The only condition to be satisfied was that the respondents shop at physical retail stores. Respondents to the final questionnaire were therefore customers who shop at physical retail stores.

The final questionnaire was not administered in a controlled environment. Respondents were solicited through email and social networking media. A convenience sample was employed for this purpose. Though a convenience sample was employed, the following were attempted in order to make the sample more representative and the results drawn more generalisable in nature. All respondents were to be over 18 years of age. The respondents were not limited to any one particular country. The questionnaires were sent such that there was to be an approximately equal gender distribution. Responses were also solicited such that the age distribution was equal. A detailed distribution of the final sample used is detailed in Section 5.2.

Determining sample size is an important consideration when structural equation modeling is used (McQuitty 2004). However, there is no consensus in the literature on the sample size to be used. As a rule of thumb, a sample size of greater than 200 is said to provide satisfactory statistical power while employing structural equation modeling (Hoe 2008). This research targeted a final sample size of 300.

4.6.3 Procedure for Data Collection

Participants were asked to take part in the survey through email and social networking media. An online method was therefore employed to collect data. Data collected through the internet has been shown to require less follow-up and has also shown to result in higher response rates when compared to mailed questionnaires (Ritter, Lorig, Laurent and Matthews 2004). The first page of the questionnaire was addressed to the survey participants. The participants were first thanked for sparing the time to take part in the survey. They were then informed that their responses to the questionnaire would provide valuable insight in understanding consumer behaviour in a retail environment. To assure anonymity and respect the privacy of respondents, participants were assured that the data would not be used individually but only as a group and that there would be no tracking of IP addresses. It was stressed that there were no right or wrong answers to any of the statements in the questionnaire and that their first impressions and feelings were of interest to the researcher. It was also mentioned that the questions were not product or retailer specific.

Further information on the final sample used, profile of the sample and response rate are detailed in the following chapter.

4.7 Data Analysis

The following sections provide a short review on the standard procedure used while building SEM models to verify the various hypotheses proposed. Specifically, tests to ensure construct validity, exploratory and confirmatory factor analysis and finally, hypotheses testing through the full SEM model are detailed in the sections below.

4.7.1 Construct Validity

Construct validity is defined as the extent to which an operational set of items accurately measures the concept under investigation (Netemeyer et al. 2003). Construct validity is defined by Peter (1981) as "the degree to which a measure assesses the construct it is purported to assess". Peter notes that though this is a less precise definition of construct validity, it is more reliable. He also recommends investigation of four distinct components in the validation of a construct – reliability, convergent validity, discriminant validity and nomological validity. These four components are said to provide the required information to determine the validity of a construct and, therefore, are conducted in this research.

4.7.1.1 Reliability Analysis

There are three widely used measures of reliability – test-retest, alternative-form and internal consistency reliability (Netemeyer et al. 2003). Test-retest reliability is used while measuring the correlation between identical measures in two different time periods, in order to ensure item stability over time. Alternative-form reliability is used when estimating correlation between two different items measuring the same construct in two different time periods. Both test-retest reliability and alternative-form reliability are used when there is a longitudinal data set. Testing internal consistency, according to Hair, Anderson, Tatham and Black (1998), falls into three categories. The first category is related to individual items – both item-to-total correlation and inter-item correlation. The second is related to the coefficient that measures reliability of the whole construct. Cronbach's alpha (Cronbach 1951) is the most widely used measure of internal consistency in this category. Finally, there are internal consistency measures grounded in confirmatory factor analysis. In this category, composite reliability and average variance are extracted. Reliability in the pre-study phase was calculated first using Cronbach alpha. In the final survey, in addition to calculating Cronbach's alpha values, reliability analysis was also tested using measures of composite reliability and average variance extracted as detailed by Fornell and Larcker (1981).

4.7.1.2 Convergent Validity

The degree to which independent measures of the same phenomenon are correlated is assessed by convergent validity (Netemeyer et al. 2003). Convergent validity of the constructs in this research is checked using a two-fold method (Guo, Xiao and Tang 2009). First, the reliabilities of all the constructs were estimated, then indicator loadings were assessed, i.e. factor loadings of indicators of each construct to ensure they were sufficiently high and statistically significant.

4.7.1.3 Discriminant Validity

Hair, Black, Anderson, Babin and Tatham (2006) define discriminant validity as "the degree to which two conceptually similar concepts are distinct". This research uses the criteria established by Fornell and Larcker (1981) to assess discriminant validity

– i.e., that the ‘average variance extracted’ (AVE) for each construct should be greater than the squared correlation between two constructs. The main aim of discriminant validity is to establish that internal consistency is greater than external consistency.

4.7.1.4 Nomological Validity

Nomological validity refers to the degree to which precise predictions relating to other concepts in a model are based on theory (Hair et al. 1998). In other words, theoretical support from prior research has to be found to identify causal relationships, and then subsequently tested to see whether the scale has analogous relationships. Nomological validity thus refers to the investigation of theoretical links between distinct constructs as well as the empirical relationship between these constructs. Nomological validity is said to be achieved if correlations between the constructs are in accordance with the theory specified (Hair et al. 2006).

4.7.2 Exploratory and Confirmatory Factor Analysis

Two types of factor analysis are recommended in the literature – ‘exploratory factor analysis’ (EFA) and ‘confirmatory factor analysis’ (CFA). Both EFA and CFA are statistical approaches used to determine internal reliability of a measure. Tabachnick and Fidell (2001) note that while EFA is associated with development of theory, CFA is related to the testing of a theory and the underlying latent processes. The aim of CFA, according to the authors, is to answer the question whether the correlations between variables are consistent with the hypothesised factor structure. CFA is an advanced technique which allows research to perform a variety of functions, including specification of correlated measurement errors, constraining loadings to be equal to one another, performing comparisons of alternative models statistically and testing second order factor models.

'Structural equation modelling' (SEM) was used to perform confirmatory factor analysis. Also known as latent variable analysis, or covariance structure analysis, SEM is an advanced multivariate technique that is used to examine simultaneously multiple dependence relationships between variables (Singh 2009). Since SEM is able to estimate a series of interrelated dependence relationships concurrently, it is considered more advanced than other multivariate techniques.

All the constructs used in this research have been derived from the literature and have been empirically tested before. The main interest, therefore, is in corroborating or rejecting the conceptualisations made. CFA is an established technique used in the literature to corroborate or reject an *a priori* hypothesis regarding the relationship of all items to their respective factors (Netemeyer et al. 2003). The measurement model of Structural Equation Modelling thus uses more than one indicator for a latent construct that cannot be measured directly (Hair et al. 1998).

While assessing the fit of the measurement model, the primary factor is the relationship between each latent variable (construct) and its indicators (items). The reliability and validity of the indicators is first assessed. Reliability of a construct is evaluated by analysing the squared multiple correlations (R^2). Though no cut-off value has been established for R^2, a rule of thumb is that the coefficient of determination must be greater than 0.3 (Hair et al. 2006). Validity is proven if all the indicator loadings are significant, i.e. when the *t*-values are greater than 1.96. In addition to these, it is necessary to assess construct validity (composite reliability) and the average variance extracted for each construct. Fornell and Larcker (1981) define the average variance extracted as "the amount of variance that is captured by the construct in relation to the amount of variable due to measurement error". As in the case of squared multiple correlation, there is no fixed cut-off established for composite reliability and average variance extracted. For composite reliability, Hair et al. (2006) recommend the value to be about 0.7 or greater. Diamantopoulos and Siguaw (2000) recommend that the average variance extracted be about 0.5 or greater.

To sum up, CFA is used to assess the properties of the construct measures. In particular, CFA is used to test a construct's validity, internal consistency, the average variance extracted and also the evaluation of validity and reliability of all the items. As Hair et al. (2006) note, CFA is essential as "a good measurement theory is a necessary condition to obtain useful results from SEM".

4.7.3 Hypotheses and Full SEM Model Testing

The previous section dealt with validation of the measurement model, which related the variables to the constructs. The next step is testing all the hypotheses proposed. This research uses SEM to test the various hypotheses, i.e. how the constructs are related to each other. This structural or path model is used to test the hypothesised relationships. The full SEM model is the final step in model building. The full SEM model comprises both the measurement and the structural models. As mentioned earlier, the measurement model relates variables to the constructs while the structural model relates constructs to each other.

To test whether the full SEM model developed reflects underlying theory, a number of model fit measures have been suggested in the literature. These fit indices are normally grouped into three, namely, absolute fit indices, incremental fit indices and parsimony fit indices (Hooper, Coughlan and Mullen 2008).

4.7.3.1 Absolute Fit Indices

Absolute fit indices provide the most fundamental indication of how well an *a priori* model fits the data. These fit indices are also used to determine which model has a superior fit when competing models that are built based on the data collected. The most commonly used fit indices in this category are the Chi-squared test, GFI, AGFI, RMSEA and the SRMR.

Model Chi-square (χ^2): According to Hu and Bentler (1999), the chi-square value "assesses the magnitude of discrepancy between the sample and fitted covariances matrices". An insignificant result at the 0.05 threshold would represent a good model fit. However, a number of limitations of the chi-square metric have subsequently been identified in literature. The main limitations are that the chi-square test assumes multivariate normality and rejects models where large sample sizes are used. An alternative that has been suggested is the use of the relative/normed chi-square, χ^2/df.

Tabachnick and Fidell (2006) recommend good model fit if the χ^2/df value is less than 2.0.

Goodness-of-Fit (GFI): Created as an alternative to the chi-square test, the 'goodness-of-fit' (GFI) calculates the proportion of variance accounted for by estimated population covariance. The GFI too, like the chi-square, has some drawbacks. GFI shows a downward bias when the degrees of freedom are large compared to the sample size. The GFI has also been shown to increase with the number of parameters in the model. The GFI is therefore a sensitive index and its popularity has decreased. There have also been calls in the literature that use of GFI should be discouraged (Sharma, Mukherjee, Kumar and Dillon 2005).

Adjusted Goodness-of-Fit (AGFI): Tabachnick and Fidell (2006) note that the 'adjusted goodness-of-fit' (AGFI) statistic adjusts the GFI, based on the degrees of freedom. However, the AGFI also increases with sample size and, as a result, neither it nor the GFI are relied on as stand-alone indices (Hooper, Coughlan and Mullen 2008).

Root Mean Square Error of Approximation (RMSEA): The RMSEA indicates how well the model fits the population covariance matrix. Diamantopoulos and Siguaw (2000) view the RMSEA as "one of the most informative fit indices" and the reason why RMSEA is such a key statistic in SEM is because of its sensitivity to the number of estimated parameters. A very good fit is said to be achieved if the RMSEA value is below 0.06 (Hu and Bentler 1999).

Standardised Root Mean Square Residual (SRMR): The 'root mean square residual' (RMR) and the 'standardised root mean square residual' (SRMR) are "the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance model" (Hooper et al. 2008). The SRMR is the preferred option in the literature. Regarding the acceptable range of the SRMR, Iacobucci (2010) recommends a range of around 0.9.

4.7.3.2 Incremental Fit Indices

Incremental fit indices are also known as comparative or relative fit indices. Incremental fit indices are a group of indices which compare chi-square value to a baseline model, and not in its raw form (Hooper et al. 2008). In other words, an incremental fit index, in contrast to an absolute fit index, measures proportionate improvements in fit of the target model with a nested baseline model (Singh 2009).

Incremental Fit Index (IFI): 'Incremental fit index' (IFI) is also known as 'Bollen's IFI' or '*Delta2*'. IFI is defined as the difference between the chi-square of the null and default model divided by the difference between the chi-square of the null model and degrees of freedom for the default model. An IFI of 0.9 or more is generally acceptable. One of the reasons why IFI is a commonly reported statistic is because it is independent of sample size.

Normed Fit Index (NFI): Also known as the 'Bentler-Bonett', or simply 'Delta1', the 'normed fit index' (NFI) reflects the proportion by which the model developed improves fit when compared to the null model. One of the weaknesses of the NFI is that the fit may be underestimated for small samples, usually less than 200. This research is not affected by this problem as the sample size is greater than 200. However, there is a problem in the parsimony of NFI. The more parameters the model has, the greater is the NFI coefficient. To overcome this problem the non-normed fit index is preferred by contemporary researchers.

Non-Normed Fit Index (NNFI): The 'non-normed fit index' (NNFI) is also called the 'Tucker Lewis index' (TLI) or '*RHO2*'. The advantage of TLI is that it has been found to be relatively independent of sample size. Hu and Bentler (1999) suggest an NNFI value of 0.95 or greater as very good.

Comparative Fit Index (CFI): Also known as the 'Bentler comparative fit index', the CFI compares existing model fit with that of the null model. The CFI and RMSEA are said to be the two measures least affected by sample size (Fan, Wang and Thompson 1999). This is one of the reasons why CFI and RMSEA are widely reported in studies involving SEM. By convention, a CFI value of greater than 0.9 is considered acceptable. A CFI value of 0.9 indicates that 90% of covariation of data is able to be reproduced by the given model.

4.7.3.3 Parsimony Fit Indices

The function of parsimony indices is to penalise for lack of parsimony so that a better fit is not indicated for a theoretical model that is not rigorous. This is based on the rationale that all things being equal, a more complex model will generally fit better than those which are less complex. The 'parsimony goodness-of-fit index' (PGI) and the 'parsimonious normed fit index' (PNFI) are the two parsimony fit indices commonly used. These were developed by Mulaik, James, Alstine, Bennett, Lind and Stilwell (1989). However, these measures are not reported in studies, as there are no suggested threshold levels recommended for theses indices (Hooper et al. 2008). This research will not therefore report parsimony fit indices.

Based on the review of the fit indices as provided above, this research will report the important absolute and relative/incremental fit measures. Specifically, this research will report the following measures – χ^2, df, χ^2/df, GFI, AGFI, RMSEA, SRMR, NFI, IFI, NNFI and CFI. Table 4.4 provides a summary of the recommended values of the important fit indices, based mainly on the recent work of Iacobucci (2010).

Table 4.4 Recommended SEM Fit Indices

Fit Measure	Recommended Value
Relative/Normed Chi-square (χ^2/df)	< 3.0
Root Mean Square Error of Approximation (RMSEA)	< 0.06
Standardised Root Mean Square Residual (SRMR)	< 1.0
Normed Fit Index (NFI)	> 0.90
Incremental Fit Index (IFI)	> 0.90
Non-Normed Fit Index / Tucker Lewis Index (NNFI/TLI)	> 0.90
Comparative Fit Index (CFI)	> 0.90

4.8 Limitations of the Method

There are a few limitations in the method employed in this research. As Iacobucci (2009) notes, SEMs largely use data that are correlational and not that which are derived from experiments. The same is true with this research as well where experiments were not employed to prove any of the hypothesised relationships. More importantly, as Penke and Deary (2010) strongly point out, it is not possible prove that a model is correct using SEM. Also, exploring data or describing it is not possible with SEM as it the model developed is based on existing theories. However, these limitations have been overcome to a certain extent by not stating any of the relationships to be purely causal in nature but only attempting to further understand if knowledge of an independent variable helps in predicting a dependent variable. Further limitations are mentioned in Section 7.5 of the thesis.

4.9 Summary

In this chapter, the philosophical underpinning of the research, the reasons why it was chosen and its limitations were first explained. The chapter then described the research design, in that the respondents were consumers who shop in retail outlets. The development of the survey instruments was detailed, involving pre-tests and the reduction in the number of items measuring each construct to no more than four. The method adopted for data collection was also explained. Data analysis procedures in terms of construct reliability, validity, confirmatory factor analysis and full SEM model were detailed. Finally, limitations of using SEM were also detailed.

The following chapter will detail how the data was analysed. The results of the reliability analysis and the confirmatory factor analysis will be discussed. Finally, results from the testing of hypotheses using the full SEM model will be provided.

CHAPTER 5: DATA ANALYSIS AND RESEARCH FINDINGS

5.1 Introduction

This chapter details the analysis on the survey conducted. First, the final sample used and the profile of the sample are detailed. Next, the results from the initial reliability analysis and correlation analysis are presented. SPSS 18 has been used for this purpose. Following this, the main data analysis is presented, as detailed in section 4.7 of the previous chapter. AMOS 18 was employed for this process, specifically the confirmatory factor analysis, the measurement model analysis and the full SEM model. Empirical evidence is provided at the end of the chapter to confirm the hypotheses.

There are five additional main sections in this chapter. Section 5.2 provides the demographic characteristics of the sample and final sample used. Section 5.3 includes reliability analysis of the various constructs employed in the study. Also included in this section are the results from the correlation analysis. The correlation results between the constructs are presented, which forms a preliminary test to see if relationships between constructs exist as hypothesised. Section 5.4 provides the main data analysis. This section first presents the results from the confirmatory factor analysis, used mainly to test the scales and to check for discriminant and convergent validity. The full SEM model is then presented. Section 5.5 presents the results of the SEM model to test the hypotheses developed in Chapter 3 and also improvements made in the model. Finally, a summary of this chapter is presented in Section 5.6.

5.2 Final Sample Used and Profile of the Sample

The online data collection, as described in the previous chapter, was solicited through email and social networking media. A total of 380 responses were received, out of which 318 were complete. The online survey was designed such that only if answers to all the questions in a given page were entered, respondents could move on to the next page of the survey. Researchers using SEM have normally used a sample size between 200 and 300. All complete responses, 318 in all, were, therefore, retained for the final analysis. The profile of the sample, in terms of age, education and gender was as follows.

The minimum respondent's age was 19, while the maximum was 76. The mean age of the respondents was 37.54. The median age of the respondents was 33. A little less than 20% of the respondents (17.3%) were between 19 and 25 years old. A little over a quarter (25.2%) of the respondents were in the age group of 26 to 30. A little over a quarter of the respondents (25.7%) were in the age group of 31 to 40. The number of respondents in the age group 41 to 50 was 14.2%, and the remaining 17.6% of the respondents were above the age of 50.

Regarding educational level, 7.6% of respondents in the survey had not attended University; 28% of respondents possessed a bachelor's degree; 52.2% of the respondents had a master's degree and 14.2% had a degree higher than master's.

Gender distribution was 40.9% female and 59.1% male.

5.3 Initial Analysis

The initial analysis in this research comprises reliability and correlation analysis. Reliability analysis was carried out to verify if all the constructs used measured the constructs they intended to. Correlation analysis was carried out as a preliminary test to the hypothesised relationships.

5.3.1 Reliability Analysis

Even though all the constructs were taken from the existing literature and were also thoroughly pre-tested, reliability analysis was carried out for each construct in the final survey using SPSS 18. All the constructs show good reliability (Netemeyer et al. 2003). The Cronbach's alpha values for the constructs are detailed in Table 5.1.

Table 5.1 Cronbach's Alpha Values with All Items in the Final Study

Constructs in the Final Questionnaire		Cronbach's Alpha
Intuitive Ability	(IAY)	0.628
Perfectionism	(PER)	0.650
Predisposition towards Maximisation	(PTM)	0.685
Self-monitoring	(SMG)	0.701
Money Conservatism	(MCM)	0.875
Need to Evaluate	(NTE)	0.746
Consumers' Perceived Knowledge	(CPK)	0.697
Approach Goal Orientation	(AGO)	0.922
Anticipated Outcome Regret	(AOR)	0.865
Anticipated Process Regret	(APR)	0.849
Need for Affective Touch	(NAT)	0.899
Need for Cognitive Touch	(NCT)	0.814
Impulse Buying	(IBG)	0.798
Decision Satisfaction	(DSN)	0.821
Consumption Satisfaction	(CSN)	0.731
Brand Loyalty	(BLY)	0.872
Outcome Regret	(ORT)	0.849

The results reveal good internal reliability for the constructs included in the final questionnaire.

5.3.2 Correlation Analysis

Following the preliminary reliability analysis conducted, correlations between all the constructs were found using SPSS 18. The reason for this was to perform a preliminary test on the hypotheses conceptualised earlier. Spearman's correlation was used as all the constructs were measured on an ordinal scale. The correlation results are presented in Table 5.2.

Table 5.2 Initial Study Correlations

	IAY	PER	PTM	SMG	NTE	MCM	CPK	AGO	AOR	APR	NAT	NCT	IBG	DSN	CSN	BLY	ORT
IAY	1.000																
PER	.256***	1.000															
PTM	.064	.006	1.000														
SMG	.051	.279***	.289***	1.000													
NTE	.184**	.521***	.116*	.203***	1.000												
MCM	.185**	.177**	-.051	-.044	.170**	1.000											
CPK	.219***	.320***	.162**	.147**	.256***	.051	1.000										
AGO	.159**	.120**	.093*	.205***	.078	-.034	.279***	1.000									
AOR	-.008	.009	.225***	.249***	.065	-.109**	.069	.112**	1.000								
APR	.036	-.026	.227***	.213***	-.033	-.171**	-.016	-.007	.640***	1.000							
NAT	.041	.018	.294***	.190**	.032	-.020	.238***	.304***	.130**	.181**	1.000						
NCT	.181**	.084	.187**	.157**	.170**	.012	.158**	.224***	.147**	.175**	.303***	1.000					
IBG	.069	-.024	.212***	.139**	.009	-.337***	.077	.353***	.341***	.335***	.245***	.171**	1.000				
DSN	.183**	.222***	.121**	.143**	.263***	.188**	.279***	.335***	.048	.010	.222***	.240***	.122**	1.000			
CSN	.349***	.341***	.043	.046	.309***	282***	.230***	.275***	-.008	-.087	-.004	.214***	.061	.537***	1.000		
BLY	.048	.184**	.099*	.150**	.126**	-.044	.104*	.098*	.111**	.139**	-.013	.145**	.141**	.232***	.235***	1.000	
ORT	-.086	-.061	.206***	.148**	-.066	-.011	.181**	.192**	.333***	.237***	.226***	.122**	.244***	-.020	-.082	.053	1.000

***Correlations significant at 0.001 level

**Correlations significant at 0.05 level

*Correlations significant at 0.01 level

From the above correlation results it is seen that two out of the eighteen hypothesised relationships are not as conceptualised. The first is the conceptualised relationship between self-monitoring and approach goal orientation. It was hypothesised earlier that the relationship between self-monitoring and approach goal orientation would be negatively related. However, from the correlation results of this study it is seen that there exists a significant positive relationship between self-monitoring and approach goal orientation. The second is the conceptualised relationship between money conservatism and anticipated outcome regret. It was hypothesised that there exists a positive relationship between money conservatism and anticipated outcome regret. Correlation results from this study show, however, that there exists a significant negative relationship between money conservatism and anticipated outcome regret.

The reasons for possible rejection of the above two hypotheses are detailed in the following chapter. Based on the correlation results, the constructs of self-monitoring and money conservatism, both of which did not show a significant relationship with the conceptualised dependent variable, were dropped from further analysis and the subsequent final model. The correlation analysis therefore acted as an initial screening process.

5.4 Main Data Analysis – Process of CFA/SEM

The Structural Equation Modeling (SEM) process comprises of two basic steps, first validating the measurement model that has been conceptualised and next fitting the structural model.

The very first step in SEM is to build a model, based on theory. Each variable in an SEM model is conceptualised as a latent one. These latent variables are measured by one or multiple indicators/items. At the start, several indicators are included for each variable. Using Confirmatory factor analysis (CFA), the indicators best measuring the variable are retained in the model. In CFA, the measurement model relates the variables to the constructs. The measurement model is basically a confirmatory factor analysis (Iacobucci 2009). In CFA, the loading of any one of the indicators defining a variable is fixed to one. This is done in order to set the scale for every factor and also to support in the overall estimation of the model.

There are two main inferential tests that a CFA model enables. One, CFA enables testing the significance of all factor loadings and two, it enables to establish the overall fit of the model. If a factor loading is not significant, it indicates either that there is cross-loading with another factor or simply that it is a poor measure. In either case, the item or the variable is to be dropped from further analysis. As a final step in CFA, it is ensured that the measurement model developed fits reasonably well. Once this is ensured, the next step is to build a structural model.

The next part of SEM following CFA is where constructs are related to other constructs. This step is called the 'structural' or the 'path' model and is considered to be of most interest theoretically. In the path model, the exogenous and endogenous constructs are specified. Exogenous constructs are independent variables and no arrows in the path diagram point to these, implying that no other factors are thought to give rise to these factors. Endogenous constructs, on the other hand, are predicted by other constructs in the model.

In this stage of SEM, only the structural path parameters and the structural prediction errors are measured. There is no depiction of either the factor loadings or measured variables as constructs have been tested in the CFA stage of SEM to mirror their measures adequately.

A full SEM model is a combination of the two models described above, the measurement model which relates the variables to the constructs and the path model which relations various constructs to each other (Iacobucci 2009).

Following the initial data analysis that included reliability and correlation analysis, the main data analysis was conducted. The main data analysis consisted of using the measurement model and the full SEM model to test the various hypothesised relationships. The measurement model relates the variables to the constructs while the full or structural path model relates the constructs to other constructs (Iacobucci 2009).

5.4.1 Measurement Model: Confirmatory Factor Analysis

The measurement model, which is basically the confirmatory factor analysis, was first carried out with all the 15 constructs (42 items) retained in the study. The global fit indices of this initial measurement model displayed a good fit: χ^2 = 1272.761, df = 715, χ^2 /DF = 1.780, TLI = 0.889, CFI = 0.908, RMSEA = 0.05, SRMR = 0.0546 (Hu and Bentler 1999; Singh 2009). The detailed results of the initial measurement model results are as in Table 5.3.

Table 5.3 Initial Measurement Model Results

CMIN/DF	GFI	AGFI	NFI	IFI	TLI	CFI	RMSEA	SRMR
1.780	0.846	0.805	0.816	0.91	0.889	0.908	0.05	0.0546

Notes: CMIN/DF = Minimum Discrepancy divided by its Degrees of Freedom

GFI = Goodness of Fit Index

AGFI = Adjusted Goodness of Fit Index

NFI = Normed Fit Index

IFI = Incremental Fit Index

TLI = Tucker-Lewis Index (also called NNFI – Non-normed Fit Index)

CFI = Comparative Fit Index

RMSEA = Root Mean Square Error of Approximation

SRMR = Standardised Root Mean Square Residual

The regression weights from the confirmatory factor analysis, however, showed that not all the items retained in the final study were measuring the constructs as intended. Further refinement of the scales was therefore done to achieve a better fit. A few of the items were dropped so that the measurement model achieves a better fit. An example of how further refinement of scales was done is as follows. There were 4 items measuring the construct, Perfectionism. The regression weights of the four items measuring the construct are as follows: PER1 = 0.385, PER2 = 0.464, PER3 = 0.721, PER4 = 0.673. From this it is seen that the items, PER1 and PER2 do not measure perfectionism well, in that they do not explain the construct well. The items PER1 and PER2 were therefore dropped from future analysis. Another example of refinement of scales was the construct of Consumers' Perceived Knowledge. The regression weights of the items measuring the construct are as follows: CPK1 = 0.826, CPK2 = 0.783, CPK3 = 0.425. In this case, item CPK3 was dropped, as it did not measure the construct properly. Similarly, the items of PTM3, NTE1 and NCT1 were also dropped.

Following further refinement of items in the final questionnaire, a measurement model was run again with the 36 remaining items measuring the 15 constructs. The global fit indices of this measurement model displayed a very good fit: $\chi^2 = 738.616$, df = 490, χ^2 /DF = 1.507, TLI = 0.94, CFI = 0.954, RMSEA = 0.04, SRMR = .0424 (Hu and Bentler 1999; Singh 2009). The detailed results are shown in Table 5.4.

Table 5.4 Final Measurement Model Results

CMIN/DF	GFI	AGFI	NFI	IFI	TLI	CFI	RMSEA	SRMR
1.507	0.891	0.851	0.877	0.955	0.94	0.954	0.04	0.0424

Convergent validity of the constructs was checked using a two-fold method (Guo et al. 2009). The reliabilities of all the constructs were high, as evidenced in Table 5.5. Furthermore, indicator loadings were assessed. Results show factor loadings of indicators of each construct to be sufficiently high and also statistically significant (see Table 5.6). Convergent validity is thus achieved. The standardised regression weights, construct reliability and the average variance extracted from the retained items in each construct are as in Table 5.5. All construct reliabilities are above 0.65 and the AVE is 0.49 or above for all the constructs. All the constructs, therefore, are reliable (Bagozzi and Yi 1988).

Table 5.5 Summary of the Constructs Used

Latent and Manifest Variables	Mean	S.D.	Standardized	Reliability	AVE
Intuitive Ability	4.89	1.08		0.66	0.51
IAY1	5.06	1.26	0.54		
IAY2	4.71	1.27	0.85		
Perfectionism					
PER3	5.41	1.00		0.65	0.49
PER4	5.41	1.14	0.69		
	5.41	1.19	0.70		
Predisposition towards Maximising					
PTM1	4.30	1.62		0.73	0.58
PTM2	4.54	1.81	0.80		
Need to Evaluate	4.08	1.83	0.72		
NTE2					
NTE3	5.51	1.03		0.77	0.63
	5.45	1.17	0.85		
Consumers’ Perceived Knowledge	5.56	1.13	0.73		
CPK2					
CPK2	4.00	1.35		0.79	0.66
	4.04	1.41	0.80		
Approach Goal Orientation	3.96	1.57	0.82		
AGO1					
AGO2	4.54	1.61		0.92	0.86
	4.64	1.70	0.91		
Anticipated Outcome Regret	4.43	1.65	0.94		
AOR1					
AOR2	3.98	1.41		0.87	0.68
AOR3	4.06	1.53	0.82		
	4.00	1.60	0.82		
Anticipated Process Regret	3.90	1.64	0.84		
APR1					
APR2	3.67	1.38		0.86	0.66
APR3	3.38	159	0.77		
	4.15	1.58	0.79		
Need for Affective Touch	3.48	1.56	0.88		
NAT1					
NAT2	3.32	1.55		0.90	0.70
NAT3	3.08	1.68	0.77		
NAT4	3.50	1.76	0.85		
Need for Cognitive Touch	3.54	1.87	0.83		
NCT2	3.16	1.74	0.88		
NCT3					
NCT4	4.64	1.36		0.82	0.60
	5.63	1.37	0.66		
Impulse Buying	4.39	1.63	0.85		
IBG1	3.90	1.79	0.80		
IBG2					
IBG3	3.65	1.46		0.80	0.57
	3.11	1.72	0.74		
Decision Satisfaction	4.16	1.69	0.80		
DSN1	3.67	1.78	0.73		
DSN2					
	4.67	1.24		0.82	0.70
Consumption Satisfaction	4.68	1.30	0.80		
CSN1	4.66	1.39	0.87		
CSN2					
	4.98	0.87		0.74	0.59
Brand Loyalty	4.72	1.05	0.82		
BLY1	5.24	0.90	0.71		
BLY2					
	4.85	1.53		0.87	0.78
Outcome Regret due to Over-consideration	4.95	1.59	0.90		
ORT1	4.75	1.66	0.86		
ORT2					
	3.50	1.59		0.86	0.76
	3.37	1.72	0.98		
	3.64	1.68	0.75		

Notes: Items in this table are those that were retained in the best-fitting model.
All measures were made on a 7 point Likert scale ranging from “Strongly Disagree” (1), to “Strongly Agree” (7).
S.D. = Standard Deviation; Reliability = Fornell and Larcker’s (1981) Construct Reliability (Jöreskog's rho)
AVE = Fornell and Larcker’s (1981) Average Variance Extracted, a measure of convergent validity.
All factor loadings are statistically significant.

Discriminant validity (Fornell and Larcker 1981) was checked for all the 15 constructs. The average variance extracted for each construct was superior to the squared correlation between that construct's correlations with the other factors. Discriminant validity is thus achieved for the constructs in the study.

The measurement model results are as detailed in Table 5.6. The standardised estimates of regression weights for all the items are detailed. The significance levels of all the constructs are also detailed in this table. The results show that the factor loadings of all the constructs are high and statistically significant.

Table 5.6 Measurement Model Results

Construct	Items	Standardised Regression Weights	*t* - values	*p* level
Intuitive Ability	IAY1	0.584	-	<0.001
	IAY2	0.784	5.403	
Perfectionism	PER3	0.692	-	<0.001
	PER4	0.696	9.369	
Predisposition towards Maximisation	PTM1	0.798	-	<0.001
	PTM2	0.724	6.509	
Need to Evaluate	NTE2	0.848	-	<0.001
	NTE3	0.732	10.513	
Consumers' Perceived Knowledge	CPK1	0.802	-	<0.001
	CPK2	0.815	9.921	
Approach Goal Orientation	AGO1	0.907	-	<0.001
	AGO2	0.943	16.87	
Anticipated Outcome Regret	AOR1	0.818	-	<0.001
	AOR2	0.819	16.16	
	AOR3	0.838	15.752	
Anticipated Process Regret	APR3	0.765	-	<0.001
	APR3	0.785	13.9	
	APR3	0.876	14.987	
Need for Affective Touch	NAT1	0.768	-	<0.001
	NAT2	0.849	15.956	
	NAT3	0.829	15.217	
	NAT4	0.881	16.378	
Need for Cognitive Touch	NCT2	0.663	-	<0.001
	NCT3	0.846	11.594	
	NCT4	0.796	10.802	
Impulse Buying	IBG1	0.801	-	<0.001
	IBG2	0.736	11.674	
	IBG3	0.731	10.976	
Decision Satisfaction	DSN1	0.799	-	<0.001
	DSN2	0.874	12.25	
Consumption Satisfaction	CSN1	0.824	-	<0.001
	CSN2	0.708	10.057	
Brand Loyalty	BLY1	0.9	-	<0.001
	BLY2	0.860		
Outcome Regret	ORT1	0.982	-	<0.001
	ORT2	0.751	9.724	

Model Fit: χ^2 = 738.616, df = 490, χ^2 /DF = 1.507, TLI = 0.94, CFI = 0.954, RMSEA = 0.04, SRMR = .0424

5.4.2 Full SEM Model

The previous section showed that the measurement model displayed a good fit. The next step is to test the fit of the conceptualised theoretical model. 'Structural equation modelling' (SEM) was employed in this research to test the hypotheses proposed. AMOS 18 was the software used for this purpose. The use of SEM is justified in the work of Hair et al. (2006) who outline three main reasons for choosing SEM over other multivariate techniques. The first justification for this research to employ SEM is that the model to be estimated comprises multiple and interconnected dependent relationships, which makes the model complex. The second justification is that in the aforementioned relationships, using SEM allows the latent concepts to be represented. Also, simultaneous correction of the estimation's measurement error is possible using SEM. The third and final justification for use of SEM in this research is that all hypotheses (relationships) are to be estimated simultaneously.

The steps involved in the development of the full SEM model are detailed in the sections below.

5.4.2.1 Testing of Hypothesised Model

Following the measurement model showing a good fit, the hypothesised model, with the eighteen hypotheses, as described in Chapter 3, was tested. In ideal circumstances, the chi-square should not be significant ($p > 0.05$). However, as Iacobucci (2010) points out, among fit indices reported in SEM, though chi-square is only an inferential statistic, it has several problems. The main problem is that the chi-square is influenced by sample size. In fact, chi-square values have been found to be significant even for modest sample sizes. Due to this problem, there is consensus in the literature that the model tested is of reasonable fit if the statistic adjusted divided by its degrees of freedom is not greater than 3.0 (Kline 2004). In this research, CMIN/DF of the hypothesised model is 1.969, well below the acceptable threshold. Other main measures also show a good fit. IFI is 0.897 and CFI is 0.896, TLI is 0.886. The RMSEA is 0.055 and the SRMR, 0.108. Overall, the indices suggest a good fit of the model to the data (Iacobucci 2010).

5.4.2.2 Improving the Hypothesised Model

This research does not compare alternate/competing models in order to prove the strength of the proposed model. SEM provides for separate testing and comparison of fit of alternate/competing models. Penke and Deary (2010) however suggest alternate/competing models when theories do not suggest one particular model but when they suggest more than one theory. There are two reasons why this research did not employ alternate/competing models. First, the theories used to conceptualise various relationships did not strongly support more than one model. Each hypothesis in this research is conceptualised based on existing theories and the data analysed through a rigorous empirical methodology. Second, the approach adopted in this research is consistent with existing literature not only in consumer behaviour and marketing (Heitmann et al. 2007) but also in other fields (Penke and Deary 2010) using SEM, where alternate/competing models are not always tested but the initial models developed are driven by strong theory and any further relationships are included/dropped in an iterative process depending on the model fit and only when justified theoretically.

It has been pointed out in literature that modifying initially hypothesised models just to show an improvement in the 'model fit' is to be avoided (Mueller 1996). This research therefore adopts the stance that any modification in the initially hypothesised model is to be considered only if there is a theoretical case to be made.

While the hypothesised model showed a good fit, this research explored whether any theoretical explanation that was not considered initially would result in a better model. This method is consistent with existing research in this field, where a 'best fitting' model is proposed when a theoretical case can be made for the new proposed relationship (Heitmann et al. 2007). To this end, it was seen that there exists a possible theoretical case for the personality trait of perfectionism to be positively related to consumers' perceived knowledge. It was earlier hypothesised that perfectionist consumers have a high need to evaluate. Similarly, perfectionists have high expectations of themselves (Kopalle and Lehmann 2001), which leads to the deep desire to learn more in order to achieve the best possible result. These goals of high expectation and high learning orientations enable perfectionists to acquire more knowledge. Extending the same to consumer behaviour, it could be argued that perfectionist consumers have high perceived knowledge. The correlation results detailed in Table 5.2 also show a significant positive relationship ($p < 0.001$) between perfectionism and consumers' perceived knowledge.

A new SEM model was therefore built adding the relationship between perfectionism and consumers' perceived knowledge. This model showed a slightly better fit than the previous model. CMIN/DF of the new model is 1.932, IFI, 0.901, CFI, 0.9 and TLI, 0.89. The RMSEA of the model is 0.054 and the SRMR, 0.106. Even though there is a possible theoretical case to be made and the model fit is slightly better once the relationship between perfectionism and consumers' perceived knowledge is added, this needs to be properly conceptualised and retested in future research.

The key indices of the measurement model, the initial hypothesised model and the 'best fitting' SEM model are presented in Table 5.7.

Table 5.7 Models of the Determinants of Consumers' Need for Affective and Cognitive Touch in a Retail Environment

Model Number	Model Estimated	χ^2	Df	CMIN/ DF	TLI	CFI	RMSEA	SRMR
1	Initial Measurement Model	1272.76	715	1.78	0.889	0.908	0.05	0.055
1a	Final Measurement Model	738.62	490	1.507	0.940	0.954	0.04	0.042
2	Initial Hypothesised SEM Model	1134.23	576	1.969	0.886	0.896	0.055	0.108
2a	Best Fitting SEM Model	1111.01	575	1.932	0.89	0.9	0.054	0.106

The final structural model proposed by this research is presented in Figure 5.1.

5.5 Results of the Hypotheses Tested

This section details the empirical results from the full SEM model. The results of the hypothesised determinants of each construct are detailed below. The full SEM model is in Figure 5.1.

5.5.1 Determinants of Consumers' Perceived Knowledge

H1 posits that consumers' perceived knowledge is positively influenced by their intuitive ability. The estimated parameter of 0.18 with a t value of 1.972 is statistically significant at $p < 0.05$. SEM results therefore support this hypothesis. H3 posits that consumers' perceived knowledge is also positively influenced by their predisposition towards maximisation. The estimated parameter of 0.21, with a t value of 2.862, and a statistical significance of $p < 0.01$ shows that the SEM results support this hypothesis.

Finally, from the 'best fitting SEM model', it is seen that perfectionism influences consumers' perceived knowledge positively. The estimated parameter of 0.38 with a t value of 4.712 is statistically significant at $p < 0.001$.

5.5.2 Determinant of Consumers' Need to Evaluate

H2 posits that the trait of perfectionism in consumers positively influences their need to evaluate. The SEM results of an estimated parameter of 0.77 with a t value of

7.655, significant at $p < 0.001$, show a very strong relationship between the two constructs. H2 is thus strongly supported in the model.

5.5.3 Determinant of Consumers' Approach Goal Orientation

H5 posits that consumers' perceived knowledge has a positive influence on consumers' approach goal orientation. The SEM results support this hypothesis. The estimated parameter of 0.32, with a t value of 4.8, is statistically significant at $p < 0.001$.

5.5.4 Determinants of Consumers' Anticipated Regret

H6 posits that predisposition towards maximisation positively influences consumers' anticipated outcome regret. The estimated parameter of 0.31, with a t value of 3.732, is statistically significant at $p < 0.001$ and supports this hypothesis. H8 posits that consumers' anticipated outcome regret positively influences their anticipated process regret. The SEM results support this hypothesis as well. The estimated parameter of 0.78 with a t value of 11.106, and a statistical significance of $p < 0.001$ shows very strong support for this hypothesis.

5.5.5 Determinants of Consumers' Need for Touch in a Retail Environment

H9 posits that consumers' approach goal orientation positively influences their need for affective touch in a retail environment. The SEM results provide support for this hypothesis, with the estimated parameter of 0.34, t value of 5.769 and statistical significance of $p < 0.001$. H10 to H12 presented theories as to the possible antecedents of consumers' need for cognitive touch in a retail environment. SEM results provide support for all these three hypotheses. H10 posits that consumers' need to evaluate positively influences their need for cognitive touch. The estimated parameter of 0.18, with a t value of 2.696, statistically significant at $p < 0.01$, provides support for this hypothesis. H11 posits that anticipated process regret positively influences consumers' need for cognitive touch in a retail environment. The estimated parameter of 0.17, with a t value of 2.712, statistically significant at $p < 0.01$, provides support for this hypothesis. H12 posits that consumers' need for affective touch in a retail environment is positively related to their need for cognitive touch in a retail environment. The estimated parameter of 0.32, with a t value of 4.991, statistically significant at $p < 0.001$, provides strong support for this hypothesis.

5.5.6 Consequences of Consumers' Need for Affective Touch in a Retail Environment

H13 posits that consumers' need for affective touch in a retail environment would positively influence impulse buying. SEM results provide support for the hypothesis. The estimated parameter of 0.31, with a t value of 4.749, is statistically significant at $p < 0.001$. H14 posits that consumers' need for affective touch in a retail environment positively influences decision satisfaction. The estimated parameter of 0.17, with a t value of 2.518, statistically significant at $p < 0.05$, provides support for this hypothesis.

5.5.7 Consequences of Consumers' Need for Cognitive Touch in a Retail Environment

H15 posits that consumers' need for cognitive touch in a retail environment would positively influence satisfaction with the decision-making process. The SEM results supported this hypothesis. The estimated parameter of 0.20, with a t value of 2.738, statistically significant at $p < 0.01$, provides evidence for the same. H18 posits that consumers' need for cognitive touch in a retail environment is related positively with outcome regret due to over-consideration. SEM results provide support for this hypothesis. The estimated parameter of 0.17, with a t value of 2.53, is statistically significant at $p < 0.05$.

5.5.8 Consequence of Consumers' Satisfaction with the Decision-making Process

H16 posits that consumers' satisfaction with the decision-making process while making purchases in a retail environment positively influences consumption satisfaction. SEM results provide evidence for this. The estimated parameter of 0.67, with a t value of 9.244, is highly significant at $p < 0.001$.

5.5.9 Consequence of Consumers' Consumption Satisfaction

H17 posits that consumers' satisfaction with the consumption process positively influences brand loyalty. The SEM results provide support for the same. The estimated parameter of 0.28, with a t value of 4.037, is statistically significant at $p < 0.001$.

5.6 Summary

This chapter presented the results from the main study. Section 5.2 detailed the final sample used and the demographic composition of this sample. Section 5.3 presented results from an initial reliability analysis using Cronbach's alpha to test if the constructs are reliable. This section also presented results of the correlation analysis as a preliminary check to confirm or refute the hypotheses developed. Section 5.4 then presented the main data analysis. In this section, the results from the confirmatory factor analysis were presented, verifying convergent and discriminant validity. The full SEM model results, both from the initially developed hypotheses and the final proposed model were also provided in this section. Empirical results were then presented in Section 5.5 to test the various hypotheses and the final proposed SEM model is presented in Figure 5.1.

The following chapter provides a comprehensive discussion into the results presented in this chapter. Hypotheses that are both supported and refuted are discussed in Chapter 8.

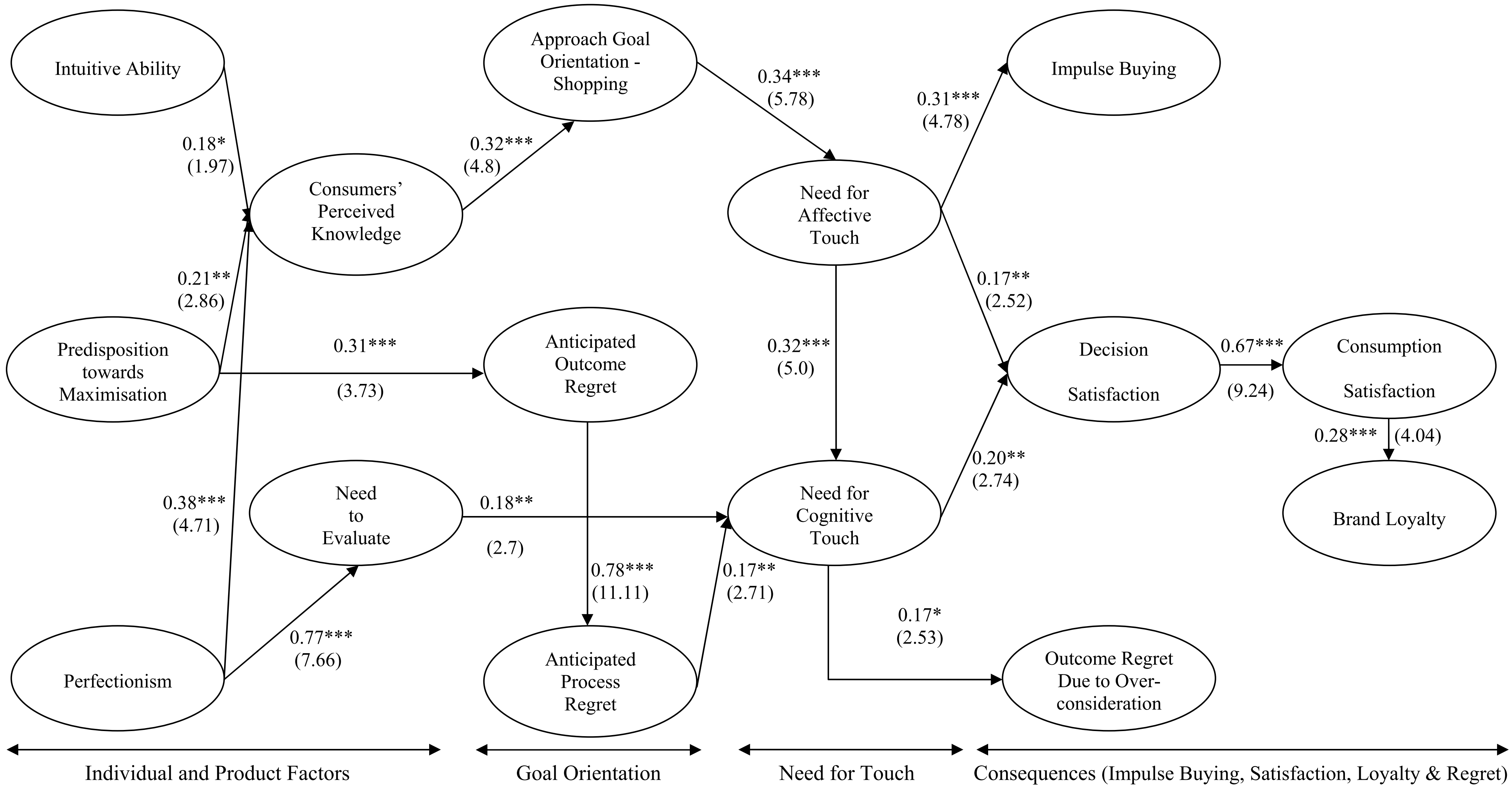

Figure 5.1 Proposed Structural Model

Notes: *** Significant at 0.001 level; ** Significant at 0.05 level; * Significant at 0.01 level; *t* value within brackets

CHAPTER 6: DISCUSSION

6.1 Introduction

This research is an empirical study of the antecedents and consequences of consumers' need for touch in a retail environment. The previous chapter detailed the proposed SEM model, which tested the various hypotheses proposed earlier in Chapter 3 and the hypothesis that was added after the initial SEM analysis. This chapter discusses the results of the proposed SEM model developed in the previous chapter. The hypotheses that are both supported and refuted are discussed in this chapter. The summary of the research findings is given in Table 6.1. The following two paragraphs in this section provide a summary of the results of the proposed hypotheses of antecedents and consequences of consumers' need for touch in a retail environment.

Among the twelve proposed hypotheses for the antecedents of consumers' need for affective and cognitive touch in a retail environment, ten are supported in this research. Both the hypotheses regarding the determinants (intuition, predisposition towards maximisation) of consumers' perceived knowledge are supported. The relationship between perfectionism and consumers' need to evaluate is also supported. Out of the two proposed determinants of approach goal orientation, one (consumers' perceived knowledge) is supported while the other (self-monitoring) is refuted. Similarly, out of the two proposed determinants of anticipated outcome regret, one (predisposition towards maximisation) is supported, while the other (money conservatism) is refuted. That it is consumers' anticipated outcome regret that precedes process regret is supported in the model. The hypothesis of approach goal orientation being the immediate driver of consumers' need for affective touch in a retail environment is supported. The hypotheses of consumers' need to evaluate, anticipated process regret and consumers' need for affective touch as immediate drivers of consumers' need for cognitive touch in a retail environment are also supported.

Among the conceptualised consequences of consumers' need for affective and cognitive touch in a retail environment, all the six proposed hypotheses are supported. Consumers' need for affective touch in a retail environment is shown to be an antecedent of impulse buying. The hypotheses that consumers' need for both affective and cognitive touch is positively related to decision satisfaction are supported. There is further confirmation that decision satisfaction precedes consumption satisfaction. The hypothesis that consumption satisfaction is an immediate driver of brand loyalty is supported. Finally, the hypothesis that consumers' need for cognitive touch and outcome regret due to over-consideration are related is also supported.

This chapter comprises a further four sections. Following this introduction section, in which the results of the study are summarised, Section 6.2 provides a discussion of the drivers of consumers' perceived knowledge and need to evaluate. Section 6.3

provides a discussion of the immediate drivers of two consumers' choice goals that were conceptualised. Section 6.4 provides a discussion of the immediate drivers of both consumers' need for affective and cognitive touch in a retail environment. Section 6.5 provides a discussion of the direct and indirect consequences of consumers' need for affective and cognitive touch in a retail environment. Finally, a summary of this chapter is given in Section 6.6.

Table 6.1 Summary of Research Hypotheses and Results

Conceptualisation	Hypotheses	Results
Determinants of Consumers' Perceived Knowledge and Need to Evaluate		
Determinants of Consumers' Perceived Knowledge		
Intuition	H1	+ **S**
Predisposition towards Maximisation	H3	+ **S**
Determinant of Need to Evaluate		
Perfectionism	H2	+ **S**
Determinants of Consumer Choice Goals		
Determinants of Consumers' Approach Goal Orientation		
Self-monitoring	H4	**- R**
Perceived Knowledge	H5	+ **S**
Determinants of Consumers' Anticipated Outcome Regret		
Predisposition towards Maximisation	H6	+ **S**
Money Conservatism	H7	**- R**
Determinant of Consumers' Anticipated Process Regret		
Anticipated Outcome Regret	H8	+ **S**
Determinants of Consumers' Need for Touch in a Retail Environment		
Determinant of Consumers' Need for Affective Touch		
Approach Goal Orientation	H9	+ **S**
Determinants of Consumers' Need for Cognitive Touch		
Need to Evaluate	H10	+ **S**
Anticipated Process Regret	H11	+ **S**
Need for Affective Touch	H12	+ **S**
Consequences of Consumers' Need for Touch in a Retail Environment		
Consequences of Consumers' Need for Affective Touch		
Impulse Buying	H13	+ **S**
Decision Satisfaction	H14	+ **S**
Consequences of Consumers' Need for Cognitive Touch		
Decision Satisfaction	H15	+ **S**
Outcome Regret due to Over-consideration	H18	+ **S**
Consequence of Consumers' Decision Satisfaction		
Consumption Satisfaction	H16	+ **S**
Consequence of Consumers' Consumption Satisfaction		
Brand Loyalty	H17	+ **S**

S – Hypothesis supported; R – Hypothesis refuted

6.2 Determinants of Consumers' Perceived Knowledge and Need to Evaluate

A short conceptualisation and results of the hypothesised relationships between the three varying personality traits of intuition, perfectionism, predisposition towards maximisation and perceived knowledge and also between perfectionism and need to evaluate are discussed in this section.

6.2.1 Intuition as a Determinant of Consumers' Perceived Knowledge

As conceptualised in Chapter 3, intuition is expected to have a positive impact on consumers' perceived knowledge. The justification for this is mainly taken from the concepts of inference-making (Broniarczyk and Alba 1994), and the fact that many purchase decisions are made at the point of sale (Rettie and Brewer 2000). The reason for viewing intuition as an antecedent of consumers' perceived knowledge is threefold: first, because consumers consider inference-making to be a source of product beliefs; second, because when making shopping decisions, consumers find intuition to be an attractive substitute for investigation and direct product knowledge; third, because there is a considerable saving of time for consumers using intuition, more so in today's fast-paced world where many purchase decisions are made at the point of sale.

The hypothesis that intuition affects consumers' perceived knowledge was tested on the basis of the above conceptualisation. The findings show that intuition has a positive impact on consumers' perceived knowledge (estimated parameter = 0.18; t value = 1.972; $p < 0.05$).

6.2.2 Perfectionism as a Determinant of Consumers' Perceived Knowledge

This was an unexpected finding, not conceptualised initially in this research. The theoretical basis for inclusion of this relationship in the final model is primarily that perfectionists have been shown to have high expectations (Kopalle and Lehmann 2001), as a result of which they have a high learning goal orientation. It is these twin goals of high expectations and high learning goal orientations that enable perfectionist consumers to acquire more product knowledge, and thereby have higher perceived knowledge.

The SEM results show a strong positive relationship between perfectionism and consumers' perceived knowledge (estimated parameter = 0.38; t value = 4.712; $p < 0.001$). As mentioned earlier, though, this relationship needs to be properly tested in further research.

6.2.3 Perfectionism as a Determinant of Consumers' Need to Evaluate

The theoretical basis for this conceptualisation is taken from Jarvis and Petty's (1996) work on the need to evaluate, which showed that some individuals are more prone than others to engage in evaluation before arriving at a decision. Perfectionists have been shown to have a deep appreciation of the nature of the process and are willing to learn during the process of selecting a product. It was, therefore, posited that perfectionist consumers have a higher need to evaluate.

Results show that this hypothesis is corroborated and that perfectionism has a very strong positive impact on the need to evaluate (estimated parameter = 0.77; t value = 7.655; $p < 0.001$).

6.2.4 Predisposition towards Maximisation as a Determinant of Consumers' Perceived Knowledge

The concept of 'maximiser-satisficer' developed by Schwartz et al. (2002), forms the basis for the hypothesis that predisposition towards maximisation is positively associated with consumers' perceived knowledge. Maximisers are focused a lot on the end results and want to achieve the very best. Consumers who are maximisers tend to perceive themselves as highly knowledgeable. Their passion to want only the very best in a retail context translates into higher perceived knowledge. In other words, consumers whose predisposition is to maximise, consider this to be a reflection of their level of knowledge.

The hypothesis that predisposition towards maximisation is positively related to consumers' perceived knowledge is empirically supported in this research (estimated parameter = 0.21; t value = 2.862; $p < 0.01$).

6.3 Determinants of Consumer Choice Goals

The two choice goals in this study are approach goal orientation and anticipated regret. A short conceptualisation and the results of the hypothesised relationship between self-monitoring and consumers' approach goal orientation, between consumers' perceived knowledge and their approach goal orientation, between predisposition towards maximisation and consumers' anticipated outcome regret, between money conservatism and anticipated outcome regret, and between anticipated outcome regret and anticipated process regret are discussed in this section.

6.3.1 Determinants of Consumers' Approach Goal Orientation

6.3.1.1 Self-monitoring

The theoretical basis for the hypothesis is drawn from the 'self-monitoring theory', which states that in a social setting, people attempt actively to display a pattern of behaviour that is considered appropriate to that particular context. Extending this to the retail environment, consumers who are self-conscious in the presence of fellow shoppers allow the surroundings to affect them while making purchase decisions. Therefore, it was posited (in Chapter 3) that self-monitoring and approach goal orientation are negatively related, i.e., higher the consumer's self-monitoring, lower their approach goal orientation.

The results from the study show, however, that there is a positive relationship between the constructs of self-monitoring and approach goal orientation (correlation = 0.205; $p < 0.001$). Hypothesis 4 was, therefore, refuted. The possible reasons for this are as follows. There is some evidence in the literature that consumers high on self-monitoring do have the same ambitions, and display behaviour similar to others in certain circumstances. Related to this research, the work of Browne and

Kaldenberg (1997) throws much light on why the inverse link between self-monitoring and approach goal orientation was disproved. They argue that "the relationship of self-monitoring to buying behavior and to the consumer's value system is controversial and not well understood". In their study among 387 young adults, they found that self-monitoring was positively related to important consumer behaviour constructs like materialism, adherence to fashion and interest in market place events as well as brands.

The studies of Snyder (1987) also throw light on the positive link between self-monitoring and approach goal orientation. In a study that asked respondents to judge the quality of a sporty car and a functional car, those high on self-monitoring chose the former. Those low on self-monitors, however, preferred the latter, and tended, moreover, to believe that branded products were not superior to generic products. Consumers high on self-monitoring can, therefore, have high approach goal orientation, where they are eager and excited at the prospect of going shopping and not necessarily otherwise. However, more research into this is needed to establish the direction of the linkage between consumers' self-monitoring and approach goal orientation.

6.3.1.2 Consumers' Perceived Knowledge

The hypothesis that consumers' perceived knowledge is positively related to their approach goal orientation is based on the following underlying arguments. First, as Sambandam and Lord (1995) argue, the more product-related knowledge consumers have, the more well-developed their memory structure is with readily accessible information, enabling easy retrieval. Second, as Johnson and Russo (1984) have shown, product knowledge leaves consumers confident in their ability to interpret, evaluate and use information. Third, as Jacoby, Chestnut and Fischer (1978) show, there exists a positive relationship between prior experience and information search. Fourth and lastly, as Hong and Strenthal (2010) point out, consumers with higher product knowledge are more engaged in the achievement of goals.

The results of this research corroborate this hypothesis: that consumers' perceived knowledge has a strong and positive impact on their approach goal orientation (estimated parameter = 0.32; t value = 4.8; $p < 0.001$).

6.3.2 Determinants of Consumers' Anticipated Regret

In this research, consumers' anticipated regret is divided into outcome and process regret. This research conceptualises predisposition towards maximisation and money conservatism to be antecedents of consumers' anticipated outcome regret. This outcome regret which consumers anticipate, it is argued, precedes their anticipated process regret.

6.3.2.1 Predisposition towards Maximisation

The theoretical basis for the hypothesis that consumers' predisposition towards maximisation is positively related to anticipated outcome regret is based on the 'means-end theory' proposed by Lee and Cottee (2009). They suggest that consumers have a propensity to evaluate products based on the ability of those products to fulfil the desired purpose. To decide if the purchase will be worthwhile, consumers envisage whether the products will meet their expectations over a period of time, and therefore anticipate regret before making a purchase decision.

The findings support this hypothesis with a strong positive relationship (estimated parameter = 0.31; t value = 3.732; $p < 0.001$).

6.3.2.2 Money Conservatism

The main theoretical foundation for the hypothesised relationship between consumers' tendency towards money conservatism and anticipated outcome regret is based on literature which shows that consumers who are careful with their money anticipate pain before making a purchase decision. The recent work of Rick et al. (2008) provides empirical support for this theory. However, the correlation results between the constructs of money conservatism and anticipated outcome regret show a negative and significant relationship ($r = -0.109$, $p < 0.05$) between the two constructs, thus refuting the hypothesis. Future research should examine in greater detail the scenarios and circumstances where there is a relationship between money conservatism and anticipated outcome regret. A closer examination into the correlation results, however, shows that money conservatism is positively and significantly related to consumers' need to evaluate ($r = 0.170$, $p < 0.05$) and negatively and significantly related to impulse buying ($r = -0.337$, $p < 0.001$). There is some support, therefore, for the theory that consumers whose tendency is to conserve and be careful with their money have a high need to evaluate before making purchase decisions and do not purchase much impulsively.

6.3.2.3 Anticipated Outcome Regret

The theoretical basis for consumers' anticipated outcome regret preceding anticipated process regret is grounded on the 'Theory of Regret Regulation' (Zeelenberg and Pieters 2006), and the 'Decision Justification Theory' (Connolly and Zeelenberg 2002). The 'Theory of Regret Regulation' advocates that regret can be because of both evaluation of outcome as well as because of the evaluation of the process. The 'Decision Justification Theory' proposes a two-stage regret mechanism, where once individuals regret the outcome, they employ self-blame. Extending these theories to anticipated regret among consumers, it is evident that consumers rethink the buying process in itself once they anticipate outcome regret. In other words, once consumers are able to anticipate outcome regret, they want to put in more thought and effort, thereby acquiring more information about the product. Such consumers can thus avoid regret arising due to under-consideration (Lee and Cotte 2009), which is a form of process regret, before making a purchase decision. The conclusion in this research is therefore that outcome regret is positively related to process regret and that the former precedes the latter.

Empirical results from this study provide very strong support for a direct, positive relationship between outcome regret and process regret (estimated parameter = 0.78; t value = 11.106; $p < 0.001$).

6.4 Determinants of Consumers' Need for Touch in a Retail Environment

Consumers' need for touch in a retail environment has two forms – affective and cognitive. This research hypothesised that approach goal orientation on the part of consumers would have a positive and significant effect on their need for affective touch in a retail environment. This research also hypothesised that consumers' need to evaluate, their anticipated process regret and also their need for affective touch were immediate antecedents of their need for cognitive touch in a retail environment. A short summary of these conceptualisations and the empirical results from the full SEM model are detailed in the following sections.

6.4.1 Approach Goal Orientation as a Determinant of Consumers' Need for Affective Touch in a Retail Environment

While touching products for fun, enjoyment or sensation seeking in a retail setting is the physical display of consumers' need for affective touch, approach goal orientation is the immediate preceding motivating state that leads consumers to the retail store. The theoretical link between approach goal orientation and consumers' need for affective touch is based on the following. Bandura (1989) reasons that individuals with approach goal orientation perceive achievement setting as a challenge, which in turn generates the motivation to achieve better task performance. Reeve (2009) further observes that motivation that is approach-oriented includes states like hope, joy, interest, expectation and desire. Consumers with approach goal orientation therefore enjoy the shopping experience for itself. Similarly, consumers with an affective need for touch are enquiring, primarily motivated by fun, enjoyment, novelty and sensation seeking. This research therefore hypothesised that consumers with approach goal orientation would display affective touch which is hedonically oriented and primarily for fun or enjoyment in a retail environment.

The findings of this research support this hypothesis, showing a strong positive relationship (estimated parameter = 0.34; t value = 5.769; $p < 0.001$).

6.4.2 Determinants of Consumers' Need for Cognitive Touch in a Retail Environment

This research posited that three factors – need to evaluate, anticipated process regret and the need for affective touch – would be antecedents of consumers' need for cognitive touch in a retail environment. A summary of these conceptualisation and the empirical results are provided in the following sections.

6.4.2.1 Need to Evaluate

In today's world, people are faced with a plethora of options to choose from, which requires a lot of decision-making (Fazio 2000). This is especially true in the retail context, where there is a constant bombardment of information forcing consumers to choose one option over the others. Just about every shopping decision involves a continuous cycle of choices being made by consumers. The work of Holbrook (2006) throws light onto the behaviour of individuals with a high need to evaluate, in that these individuals gather all relevant information and base evaluations on it. The work of Vieira (2009) further validates this finding, more so in the consumer behaviour context. The results of Vieira's (2009) work show that consumers who have a high need to evaluate rely mostly on the judgments they form due to their own evaluations and are at times negatively inclined to outside influences like advertisements. From these studies, it can be said that consumers with a high need to evaluate tend to employ a cognitive process. This research earlier conceptualised and empirically showed that perfectionists have a high need to evaluate in order to make the most informed and best possible decisions. In the retail context, this research argued that consumers with a high need to evaluate make every effort to make a rational, informed purchase. To achieve this objective it was posited that such consumers would employ cognitive touch while evaluating products in order to reach the right purchase decision. This haptic processing of information is not for fun or enjoyment, but very much cognitive in nature. It was thus hypothesised that consumers with high need to evaluate would employ cognitive touch while evaluating products in a retail setting.

The findings support the hypothesis that there is a positive and significant relationship between consumers' need to evaluate and their need for cognitive touch in a retail environment (estimated parameter = 0.18; t value = 2.696; $p < 0.01$).

6.4.2.2 Anticipated Process Regret

As Reynolds et al. (2006) observe, consumer behaviour literature focusing on regret is predominantly filled with work on post purchase regret. However, there are studies that show anticipated regret to be one of the main motivating factors driving the selection of products (Bell 1982). This research hypothesised and showed through empirical results that consumers with a predisposition towards maximisation tend to anticipate outcome regret. It also demonstrated that consumers who anticipate outcome regret tend to then anticipate process regret, in particular process regret due to under-consideration. It is well established in the literature that the emotion of regret is cognitive in nature (Zeelenberg, van Dijk and Manstead 1998; Matarazzo and Abbamonte 2008). Furthermore, there is evidence in the literature that once consumers anticipate regret, they work harder to reduce chances of post purchase regret (Zeelenberg 1999). This research therefore posited that consumers who anticipate process regret would employ a cognitive touch while evaluating products and product alternatives in a retail environment. In other words, anticipation of process regret due to under-consideration makes consumers work harder, by systematically and carefully evaluating products and product alternatives, often employing cognitive touch in a retail environment.

The findings support this hypothesis with a positive and significant relationship (estimated parameter = 0.17; t value = 2.712; $p < 0.01$).

6.4.2.3 Need for Affective Touch

It has been well established in the literature that consumers exhibit two distinct kinds of touch – affective and cognitive, while evaluating products in a retail setting. This research further established that these two distinct kinds of touch existed, and that there were differences in the antecedents, particularly in the choice goals, which led to certain consumers exhibiting affective and others cognitive touch in a retail setting. However, these two constructs are not totally unrelated. The theoretical justification for this comes from various dual-stage models proposed by researchers over the last two decades. In goal orientation literature, there is evidence that people's goals change from uncertain to certain as the decision time approaches. Gollwitzer (1990) uses the 'mind-set theory' to explain this phenomenon. Other researchers (Kruglanksi and Webster 1996; Carver and Scheier 1998) propose similar two-stage models of evaluation. Trope and Liberman (2003) postulate the 'construal level theory', providing more insight into the two-stage process employed by individuals before making a decision or performing a task. They show that goals change from abstract to more precise as a decision or task approaches. In consumer behaviour, Lee and Ariely (2006), through a series of experiments have shown how consumers have ill-defined goals at the beginning of the shopping process, but that these goals become more concrete as the decision-making time gets closer. Extending the same theory to consumers' need for touch in the retail environment, this research posited that consumers who at first display affective touch to fulfil their needs of fun, novelty, excitement and sensation seeking, would display a form of cognitive touch closer to making a purchase decision.

The findings support this hypothesis of a positive and significant relationship between consumers' need for affective and cognitive touch in a retail environment (estimated parameter = 0.32; t value = 4.991; $p < 0.001$).

6.5 Consequences of Consumers' Need for Affective and Cognitive Touch in a Retail Environment

This research conceptualised the relationship between consumers' need for affective and cognitive touch in a retail environment and four central concepts in the field of marketing and consumer behaviour: namely, impulse buying, satisfaction, brand loyalty and outcome regret. A short summary of these conceptualisations and the empirical results from the full SEM model are presented in the following sections.

6.5.1 Impulse Buying

The theoretical basis for the hypothesised relationship between consumers' need for affective touch in a retail environment and impulse buying is based on the following conceptualisation. First, it has been established for a long time in the literature that seeing and feeling the same product gives very different experiences and that people never see and feel the same object (Berkeley, 1709). Second, products that appeal to senses like hearing, smell, taste and touch have been found to encourage impulse buying among consumers (Underhill 1999). Third, consumers with a high need for affective touch in a retail environment have been shown to be confounded due to an overload in information processing. This, as Hausman (2000) argues, encourages consumers with a high need for affective touch in a retail environment to choose products using alternate selection of heuristics, one of them being impulse buying. Studies based on the above notwithstanding, there have been very few studies that have explored the kind of touch that encourages impulse buying. Peck and Childers' (2003b) work clearly differentiates consumers' need for touch in a retail environment into affective and cognitive. Based on the characteristics exhibited by consumers displaying affective touch in a retail environment, this research posited a positive and significant relationship between consumers' need for affective touch in a retail environment and impulsive buying.

The findings support this hypothesis with a strong positive relationship (estimated parameter = 0.31; t value = 4.749; $p < 0.001$).

6.5.2 Decision and Consumption Satisfaction

It has been shown in the literature that satisfaction has two main dimensions – satisfaction with the decision-making process and (the traditional) satisfaction with the consumption process. Moreover, as the studies of Heitmann et al. (2007) show, decision satisfaction precedes consumption satisfaction. Since this research is mainly concerned with the consumers' need for touch in a retail environment, and not the purchase experience per se, the initial conceptualisation developed was between consumers' need for both affective and cognitive touch in a retail environment and decision satisfaction.

Consumers displaying affective touch in a retail environment fulfil their desire for fun, enjoyment, novelty and sensation seeking. Hirschman and Holbrook (1982) find that such consumers consider their goals fulfilled if they are able to exhibit such behaviour during a shopping trip. The studies of Hausman (2000) further show that such consumers are uplifted when these needs are fulfilled. This research, therefore, hypothesised that consumers' need for affective touch in a retail environment is positively related to decision satisfaction. The findings from this study support this hypothesis (estimated parameter = 0.17; t value = 2.518; $p < 0.05$).

The wants of consumers who feel the need for cognitive touch are different from those who require affective touch while selecting retail products. The former group of consumers act rationally, and cognitively evaluate alternatives while choosing a product. The utilitarian value of the product is of the utmost importance to such consumers. The search for information is efficient. Literature has long established that cognition is one of the main antecedents of satisfaction (Folkes 1984; Mano and Oliver 1993). Recent research has provided further evidence to support this in that cognitively oriented consumers achieve goals with a minimum of irritation (Childers et al. 2001). Extending the link between cognition and satisfaction, this research conceptualised that consumers' need for cognitive touch in a retail environment is positively related to their satisfaction with the decision-making process. The findings from this study provide empirical evidence and support for this hypothesis (estimated parameter = 0.20; t value = 2.738; $p < 0.01$).

For a long time, researchers studying satisfaction adopted a very outcome-oriented approach and focused mainly on the consumption aspect of satisfaction. Howard and Sheth (1969), for example, focused on consumption experience to define consumer satisfaction, while Oliver (1981), more than a decade later, also adopted a similar approach. For the last two decades, however, there has been an attempt to differentiate between two aspects of satisfaction – decision and consumption (Yi 1991). It has been shown earlier that consumers' display of affective and cognitive touch in a retail environment directly and positively influences decision satisfaction.

There is evidence in the literature that evaluative process plays an important role in influencing, not just decision satisfaction, but also overall satisfaction levels (Tse and Wilton 1988; Hunt 1997). However, the more recent work of Heitmann et al. (2007) provides a clearer differentiation between the two satisfaction constructs, with their work empirically showing that decision satisfaction preceded consumption satisfaction. This research, therefore, conceptualised that consumers' display of affective and cognitive touch in a retail environment positively influences satisfaction with the decision-making process, which in turn positively influences satisfaction with the consumption experience. The results from this research provide very strong empirical support for the hypothesised relationship between decision satisfaction and consumption satisfaction (estimated parameter = 0.67; t value = 9.244; $p < 0.001$).

6.5.3 Brand Loyalty

This research does not conceptualise a direct positive relationship between consumers' need for affective and cognitive touch in a retail environment and brand loyalty. Rather, consumers' display of affective and cognitive touch in a retail environment has been empirically shown to be positively related to decision satisfaction, and decision satisfaction in turn positively and directly related to consumption satisfaction. Consumers' need for affective and cognitive touch in a retail environment is therefore perceived as an early antecedent to brand loyalty in this study. Support for this hypothesis is drawn from research that has shown brand loyalty to be an effect of explicit, evaluative and extensive decision-making processes (Bloemer and Kasper's 1995). It is this explicit, evaluative and extensive process that translates into satisfaction with the decision-making aspect of the purchase, then into consumption satisfaction and finally, into brand loyalty.

There has been extensive research on how satisfaction greatly influences brand loyalty. The work of Fornell (1992) reports an overall positive relationship between the constructs of satisfaction and brand loyalty. Researchers have recognised that brand loyalty occurs only when there is an overall satisfaction with the brand and not just a few aspects of it (Bolton 1998; Mittal and Kamakura 2001). This research therefore posited a positive and direct relationship between consumption satisfaction and brand loyalty.

The findings from this research support the hypothesis that there exists a strong, direct, positive and significant relationship between consumption satisfaction and brand loyalty (estimated parameter = 0.28; t value = 4.037; $p < 0.001$).

6.5.4 Consumer Outcome Regret due to Over-consideration

Earlier, empirical results showed a strong and positive relationship between the constructs of affective and cognitive touch in a retail environment and satisfaction. However, there is evidence showing that positive and negative effects can exist simultaneously (Watson and Tellegen 1985). This is also true in the retail context where so many factors contribute to satisfaction or dissatisfaction, and where it is probably close to impossible for consumers to be happy with each and every aspect leading to and following a purchase decision. Oliver (1989) notes, in fact, that satisfaction is probably an incomplete dependent variable. This has led this research to explore a possible kind of regret that could exist for consumers employing touch in a retail environment. The work of Watson and Tellegen (1985) throws light on possible negative outcomes. They suggest that people employing cognition could undergo some regret as well. This research, drawing upon Watson and Tellegen's (1985) work, argued that consumers displaying need for cognitive touch in a retail environment may undergo outcome regret due to over-consideration. The reasons for this conceptualisation were as follows. First, cognition requires considerable mental effort. Second, cognitively oriented consumers spend more time in general evaluating each product compared to those with an affective disposition. Though there is satisfaction at employing a rational decision-making process, this research theorised that the mental effort exhausted and the time-consuming search process employed would result in outcome regret due to over-consideration (Lee and Cotte 2009).

Empirical results from this research support the relationship between consumers' cognitive need for touch in a retail environment and outcome regret due to over-consideration (estimated parameter = 0.17; t value = 2.53; $p < 0.05$).

6.6 Summary

This chapter provided further discussion and analysis of the final proposed SEM model. Discussion was provided of the sixteen hypotheses that were supported as well as the two hypotheses that were not supported in this research.

The results provided evidence for the hypothesised relationships between the personality traits of intuition, predisposition towards maximisation and consumers' perceived knowledge. Empirical support was also found for a positive relationship between perfectionism and consumers' perceived knowledge. The findings support the hypothesis that perfectionism and need to evaluate are positively and significantly related to each other. Mixed results were obtained for the antecedents of consumer choice goals. For approach goal orientation, the results showed that consumers' perceived knowledge was a determinant, but that self-monitoring was not inversely related to approach goal orientation. For anticipated outcome regret, predisposition towards maximisation was found to be a determinant, but money conservatism did not show a significant positive relationship. Consumers' anticipated outcome regret was also shown to precede anticipated process regret. All hypothesised relationships for immediate antecedents of consumers' need for affective and cognitive touch were as conceptualised. Approach goal orientation was found to positively affect consumers' need for affective touch. Need to evaluate, anticipated process regret and consumers' need for affective touch was found to positively affect consumers' need for cognitive touch in a retail environment.

All hypothesised relationships for consequences of consumers' need for affective and cognitive touch in a retail environment were shown to be statistically significant as conceptualised. Consumers' affective need for touch in a retail environment was found to positively influence their impulse buying. Both affective and cognitive touch in a retail environment were found to be positively related to decision satisfaction, which in turn was related to consumption satisfaction. A positive and significant relationship between consumption satisfaction and brand loyalty was also found. Lastly, the hypothesised positive relationship between consumers' need for cognitive touch and outcome regret due to over-consideration was also shown to be statistically significant in this study.

Following the discussion of the results of this study, Chapter 7 will outline the main theoretical and managerial implications. The limitations of this research and directions for future research will also be outlined in the following chapter.

CHAPTER 7: CONCLUSION

7.1 Introduction

This chapter first provides an overview of the thesis in Section 7.2. Section 7.3 details the contribution this study makes to the extant literature, whilst the managerial contributions are listed in Section 7.4. These sections are followed by a discussion of research limitations and directions for future research (Section 7.5) and a summary of this chapter (Section 7.6).

7.2 Overview of the Thesis

This research examines the antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. In particular, this research examines the role personality and lifestyle traits, consumers' perceived knowledge and their goal orientations play as antecedents of consumers' need for affective and cognitive touch in a retail environment. The consequences of consumers' need for affective and cognitive touch in a retail environment in terms of impulse buying, satisfaction, brand loyalty and outcome regret are also examined. A holistic model is proposed based on the rigorous empirical testing of the hypotheses developed.

The thesis comprises seven chapters. The scope of the research, the research problems and objectives and expected contributions are presented in the introduction chapter (Chapter 1). This is then followed by a comprehensive literature review of all the constructs used in this study. Chapter 2 thus provides a literature review on the need for touch and on the possible antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. Chapter 3 provides the conceptualisation for the initial eighteen hypotheses in this study. Chapter 4 outlines the research design, the development of the survey questionnaire and the results from the pre-study. It also explains procedure employed to analyse the data. Chapter 5 presents all the research findings, with relation to all the hypotheses in this research. The proposed SEM model is detailed in this chapter. Chapter 6 provides a discussion of the findings of the study. Finally, this chapter (Chapter 7) provides an overview of the thesis, outlines the key theoretical and managerial contributions, mentions the limitations of the thesis and suggests directions for future research.

7.3 Theoretical Contributions

This research addresses a number of research gaps. First, there is limited knowledge of the various stages in the consumer decision process leading to consumers' need for touch in a retail environment. Second, there are limited studies on the consequences of consumers' need for touch in a retail environment in a holistic fashion. Third, distinct antecedents and consequences of consumers' need for two kinds of touch – affective and cognitive – in a retail environment have not been studied much in literature (Krishna and Morrin 2008).

This research contributes to theory in three important ways. First, contribution is made to theory development by conceptualising the relationships between various antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. Second, a contribution is made to theory verification by testing empirically all the conceptualised relationships. Third, by not selecting one particular product category, this research directly contributes to the generalisation of theory.

This research conceptualises and empirically tests the complex interactions among and between various antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. In particular, this research empirically tests the determinants of (1) consumers' perceived knowledge, (2) consumers' need to evaluate, (3) consumers' approach goal orientation, (4) consumers' anticipated regret, (5) consumers' need for affective touch in a retail environment and (6) consumers' need for cognitive touch in a retail environment. This research also empirically tests the consequences of consumers' need for affective and cognitive touch in a retail environment, namely, (1) brand loyalty, (2) satisfaction, (3) impulse buying and (4) outcome regret. These relationships are discussed in detail below.

7.3.1 Intuition, Perfectionism and Predisposition towards Maximisation as Determinants of Consumers' Perceived Knowledge

The personality traits of intuition, perfectionism and predisposition towards maximisation have been shown to influence consumer decision-making processes. However, their relationship with consumers' perceived knowledge has not been studied much in literature.

Most purchase decisions are made at the point of sale. Though, researchers have identified reasons for individuals and consumers using intuition in their decision-making process (Dane and Pratt 2007; Alter et al. 2007), to the best of the author's knowledge the relationship between intuition and consumers' perceived knowledge has not been examined. Perfectionists have been shown to have high expectations (Kopalle and Lehmann 2001) and high learning goal orientation (Schwartz 2004). However, the relationship between perfectionist consumers and their perceived knowledge in a consumer behaviour context has not been studied much before. Similarly, studies (Besanko and Winston 1990) have focused on consumers' predisposition towards maximisation, but not the relationship of this predisposition with consumers' perceived knowledge.

The theoretical contribution this research makes in finding the personality trait determinants of consumers' perceived knowledge is significant. This research has empirically shown a positive and significant relationship between the personality traits – intuition, perfectionism and predisposition towards maximisation – and consumers' perceived knowledge. However, as noted earlier, further research is needed to confirm that the personality trait of perfectionism is a determinant of consumers' perceived knowledge.

7.3.2 Perfectionism as a Determinant of Consumers' Need to Evaluate

The work of Jarvis and Petty (1996) shows that some individuals are more prone to evaluation than others. The antecedents of this need to evaluate have not, however, been much studied much. This research contributes to theory by empirically showing perfectionism to be a positive and highly significant determinant of consumers' need to evaluate.

7.3.3 Consumers' Perceived Knowledge as a Determinant of Approach Goal Orientation

Consumers' perceived knowledge has been acknowledged to be an important antecedent in both the consideration and evaluation stages of consumer decision-making (Srinivasan and Ratchford 1991; Sambandam and Lord 1995). However, its relationship with the vital motivational state of consumers' approach goal orientation has not been conceptualised to the best of the author's knowledge. This research contributes to theory by empirically showing the existence of a positive and highly significant relationship between consumers' perceived knowledge and their approach goal orientation.

7.3.4 Determinants of Consumers' Anticipated Regret

While studying regret, literature focuses mainly on post purchase regret. Consumer behaviour is, however, influenced by anticipated regret as well (Kalra and Shi 2010) and this area is in need for more research. This research conceptualises and empirically shows predisposition towards maximisation as an antecedent of consumers' anticipated outcome regret.

Also, this research contributes importantly to theory by conceptualising and empirically showing that consumers' anticipated outcome regret precedes their anticipated process regret. Specifically, this research contributes to theory by showing that consumers' anticipated outcome regret due to change in significance precedes their anticipated process regret due to under-consideration.

7.3.5 Approach Goal Orientation as a Determinant of Consumers' Need for Affective Touch in a Retail Environment

Approach goal orientation is identified as the preceding motivating state leading consumers to the retail store. While approach-oriented motivation includes states like hope, joy, interest and desire (Reeve 2009), there is hardly any research exploring the consequence of these states in a retail setting. This research fills this gap in theory and posits that those consumers who are enquiring and enjoy shopping for the fun, enjoyment, excitement and sensation seeking display an affective need for touch in a retail environment. The empirical results provide strong support for this relationship.

7.3.6 Need to Evaluate, Anticipated Process Regret and Need for Affective Touch as Determinants of Consumers' Need for Cognitive Touch in a Retail Environment

Though individuals' need for cognition has been widely researched in general, consumers' need for cognitive touch in a retail setting is not an area that has been much explored. This research fills the gap in theory by conceptualising and empirically providing support to the relationship between three direct antecedents – need to evaluate, anticipated process regret and need for affective touch – of consumers' need for cognitive touch in a retail setting.

Individuals' with a high need to evaluate have been shown to gather a lot of information and form evaluations based on the information they acquire (Holbrook 2006). They also rely less on outside influences (Vieira 2009). This research extends these findings and addresses the consumers' need for touch in a retail environment by first conceptualising and then empirically providing support for a positive and significant relationship between the need to evaluate and consumers' need for cognitive touch in a retail environment.

Consumers who anticipate regret have been shown to work harder to reduce post purchase regret (Zeelenberg 1999). Literature has also shown regret to be largely cognitive in nature (Matarazzo and Abbamonte 2008). Extending these findings, this research contributes to theory by conceptualising and empirically providing support for a positive and significant relationship between anticipated process regret and consumers' need for cognitive touch in a retail environment.

Moreover, consumers' shopping goals have been shown to change from generic to more precise during the shopping process (Lee and Ariely 2006). 'Mind-set theory' also provides support for the phenomenon of a deliberative mind-set changing to an implementation mind-set closer to decision-making time (Gollwitzer 1990). Extending this theory, this research contributes to theory by conceptualising and empirically providing support that even for consumers who exhibit affective touch, closer to decision-making they tend to use cognitive touch while evaluating product(s) in a retail environment.

7.3.7 Consumers' Need for Affective Touch as a Determinant of Impulse Buying

Impulse buying has been shown to take place as a result of touching, smelling, hearing and tasting (Underhill 1999). That touching is a special sense has been recognised for a long time (Berkeley 1709). However, there has only been one piece of research to the author's best knowledge that has established a link between consumers' need for affective touch in a retail environment and impulse buying. This research not only reinforces this relationship but contributes to theory by empirically providing support for this link without dichotomising the variable of consumers' need for affective touch, as was done in the work of Peck and Childers (2006).

7.3.8 Consumers' Affective and Cognitive Touch in a Retail Environment as a Determinant of Satisfaction

The importance of allowing consumers to touch products is well established in the literature (Levin et al. 1984; Pense-Lheritier et al. 2006). However, there is limited research establishing a link between consumers' need for affective and cognitive touch in a retail environment and decision satisfaction. Drawing on the 'two-appraisal' model of evaluating satisfaction (Oliver 1989) and on other research on affective (Hirschman and Holbrook 1982) and cognitive (Folkes 1984) touch, this research contributes to theory by conceptualising and empirically providing support for a positive and significant relationship between both consumers' need for affective and cognitive touch in a retail environment and decision satisfaction. This research also reinforces the work of Heitmann et al. (2007) that decision satisfaction precedes consumption satisfaction.

7.3.9 Consumers' Need for Touch in a Retail Environment as an Early Determinant of Brand Loyalty

That customer satisfaction is an important antecedent of brand loyalty is well established in the literature (Bolton 1998; Mittal and Kamakura 2001). The link between consumers' need for touch in a retail environment and brand loyalty is, however, an unexplored area. This research contributes to this area of theory by conceptualising and empirically providing support that consumers' need for touch in a retail environment is one of the early antecedents of brand loyalty. This research also reinforces the relationship between consumption satisfaction and brand loyalty by providing empirical evidence for the same.

7.3.10 Consumers' Need for Cognitive Touch as a Determinant of Outcome Regret due to Over-consideration

There are very few studies detailing the negative effects of consumers physically touching retail products in a store (Argo et al. 2006). Drawing mainly on the work of Watson and Tellegen (1985), who show that positive and negative effects can exist simultaneously, this research contributes to this little explored area by conceptualising and empirically providing support that consumers' need for cognitive touch in a retail environment and outcome regret due to over-consideration is positively and significantly related.

7.4 Managerial Implications

For practitioners, the implications of touch in the field of marketing are more substantial than was previously believed (Peck and Wiggins 2006). Moreover, with the growth of online retailing, practitioners need to be aware of the unique differentiating characteristics that lead consumers into shopping in physical retail outlets. Literature shows that direct experience leads to more concrete mental representations than indirect experience (Hamilton and Thompson 2007), and that consumers generally prefer to physically touch products before purchasing those (Citrin et al. 2003). The need to physically touch products before purchasing them is thus one key distinction between online and physical retail outlets. This research, therefore, contributes significantly to practitioners and retail managers as well by studying the various antecedents and consequences of consumers' need for touch in a retail environment.

This research first underlines the importance for managers to differentiate between two contrasting types of touch consumers' employ in a retail environment, affective and cognitive. Both the antecedents as well as consequence of these contrasting types of touch are different and are of significant importance to retailers and managers. As Arnold and Reynolds (2003) point out, it is useful for retails to know distinct customer segments both for better targeting and for design of appealing store environments.

This research identifies approach goal orientation as the immediate antecedent of consumers' need for affective touch in a retail environment and impulse buying as its immediate consequence. From a managerial standpoint, this research could help practitioners to target this segment of customers by concentrating on the experiential aspects and positioning the shopping trip as fun, adventure thereby increasing consumers' approach goal orientation. Then, by designing appealing and easy to touch store layouts retailers can increase impulse purchasing. There is also prior evidence in literature that by increasing the prospect of consumers touching products through store layout and displays, impulse purchasing can be increased (Peck and Childers 2006).

In addition to the possibility of increasing impulse purchasing, this research shows a link between consumers' need for affective touch and satisfaction. For practitioners, this is of great importance, in that, by increasing consumers' approach goal orientation and satisfying their desire of need for affective touch in a retail environment, there is not just a possibility of increased sales through impulse buying but also satisfaction which increases loyalty and positive word of mouth. Arnold and Reynolds (2003) also suggest satisfying consumes' hedonic motivations could result increased loyalty and satisfaction.

For practitioners, just as identifying consumers' who need affective touch in a retail environment can lead to many benefits as mentioned above, identifying consumers' who require cognitive touch also leads to similar benefits. Consumers' requiring cognitive touch need high levels of information in order to make a reasoned purchase decision. The takeaway for practitioners is that, more than creating a visually appealing display, the concentration needs to be on providing easy access to good quality information. Employing knowledgeable salespersons, having kiosks/information counters, clear signs, banners and easy to read printed information in stores could go a long way in increasing confidence and thereby satisfaction of this segment of customers. This research also shows a link between consumers' cognitive need for touch in a retail environment and satisfaction. This is consistent with evidence in literature (Grohmann et al. 2007) which suggests that retailers who provide consumers' with tactile information and opportunity to cognitively evaluate products have an advantage with those who do not.

This research thus helps practitioners identify as targetable segments the kind of consumers who prefer to affectively touch and cognitively evaluate products while shopping. Specifically, increasing consumers' perceived knowledge increases their approach goal orientation – a key motivational construct leading to consumers' need for affective touch in a retail environment. It is this affective touch which consumers employ, for fun, excitement, enjoyment and sensation seeking that makes them buy impulsively. Anticipated regret, on the other hand, makes consumers cognitively evaluate products in a retail setting. This research also helps practitioners by providing a clearer insight into the concept of anticipated regret – both outcome and process – and the role it plays in consumers' search for information in a retail setting.

Satisfaction, brand loyalty and outcome regret are concepts of great interest, not just to academics but also very much to practitioners. This research provides evidence for practitioners that consumers can experience satisfaction with the decision-making process while choosing products in a store, either by affectively touching products for fun, or by cognitively touching products in order to evaluate them with a salient purchase goal. Practitioners, therefore, need not necessarily encourage one kind of touch over the other, but merely aim to provide an environment where consumers can freely touch and inspect products, either by employing affective or cognitive touch. This could have implications for product placement and the general layout of the store as well, where retailers can better position and display products to attract greater number of customers. Based on the products sold, retailers could encourage consumers to fulfil their affective or cognitive need to physically touch merchandise.

7.5 Research Limitations and Directions for Future Research

That need for touch is a fundamental human need has been established in literature. This research provides further evidence that consumers' need for touch in a retail environment takes two major forms, affective and cognitive and that retailers have much to gain in terms of increased sales and satisfaction by providing consumers' with increasing opportunities to display these two kinds to touch in-store. However, as with all research, there are limitations and substantial scope for future research, some of which are detailed in the following paragraphs.

This scope of this research was limited to the study of only one among the five basic senses which influence consumer decision making in a retail environment. Though touch and sight are noted to be the main senses influencing consumer behaviour and have been the focus of much research in consumer behaviour and marketing (Krishna 2006), future research should explore a combination of senses affecting consumer behaviour in a retail environment. Such research would provide much insight into the effect and interaction of various senses on every step of the consumer decision-making process.

This research showed a link between consumers' perceived product knowledge and approach goal orientation towards shopping. However, as McCabe and Nowlis (2003) suggest, consumers' familiarity with products and their material properties may lead them to purchase these from online environments. Future research can explore whether consumers with high perceived product knowledge and familiarity of products and their material properties tend to purchase from a physical retail outlet or a remote environment.

This study did not study effects of stores which have both in-store as well as online shopping options. McCabe and Nowlis (2003) suggest that organisations which sell products with material properties in-store have an advantage than those which sell similar products online. Future research could further explore if organisations that have dual presence (both in-store as well as online) have an advantage over those which have presence only in either?

Another future direction for research is to study whether in-store and online environments can possibly complementing each other instead of purely competing against each other but. This is because as organisations with dual presence can sell most of the product with material products and those that require higher degree of touch in-store and other products with geometric properties such as packaged goods which do not require high degree of touch online.

It has been suggested in literature that product with material properties are preferred in-store while those with geometric properties in an online environment (McCabe and Nowlis 2003). However, in light of this and other similar research which differentiates the two contrasting consumers' need for touch in a retail environment, future research can look into which specific product categories are linked to affective and cognitive touch in a retail environment. Such studies would contribute to segmenting implications as well.

Though an attempt has been made to build a holistic model comprising various antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment, this research acknowledges that the antecedents and consequences chosen are not comprehensive in nature. Moreover, the relationship between perfectionism and consumers' perceived knowledge needs to be further tested. Future research can include more variables to develop a more comprehensive model. Specifically, other personality and lifestyle traits, product factors and other possible consequences can be chosen in future research which would help to better understand the important phenomena of consumers' need for affective and cognitive touch in a retail environment

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This research did not model antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment separately. Future studies could do this, perhaps leading to a clearer understanding of the two different consumer needs for touch while shopping at retail outlets.

‘Exploratory potential’ in online shopping sites has been shown to play a central role in creating both hedonic and utilitarian value (Demangeot and Broderick 2009). Moreover, various visual merchandising cues in a retail environment have been said to positively influence approach behaviour and consumer satisfaction (Ha and Lennon 2010). Future research can thus further explore whether visual merchandising cues can be real substitutes for the affective and cognitive touch stage described in this research. Also of interest would be whether visual merchandising cues influence one dimension of touch more than the other. Specifically, future research could explore which group of consumers, those displaying affective touch or those displaying cognitive touch, feel the greater need to shop at physical retail outlets.

Future research could also explore whether the roles individual and product factors play as antecedents to choice goals differ between retail and online shopping. This is true especially in the light of recent research (Ganesh, Reynolds, Luckett and Pomirleanu 2010) which points out that there are more similarities than differences between retail and online shoppers.

This study did not include situational factors like crowding, time constraints and the role of family and friends in shopping, all of which have been shown to influence consumer behaviour in a retail setting (Bearden et al. 1989). These and other situational factors could possibly inhibit or encourage consumers from haptically evaluating products to the extent they would like and constitute areas for future research.

This research also did not consider whether salespeople and employees in a store influence the kind or amount of touch consumers display in a retail environment. The response of salespeople has been shown to positively influence consumer satisfaction (Menon and Dube 2000). Future studies can research whether salespeople and employees in a store play a positive role in encouraging consumers to fulfil their affective and cognitive need to haptically evaluate products, thereby increasing sales and consumer satisfaction.

Moreover, future studies could look at other possible negative individual traits like low self-esteem and social factors which could play a role in moderating the kind and amount of haptic evaluation of products consumers display in a retail environment.

This research tested complex relationships between various antecedents and consequences of consumers' need for touch in a retail environment and modelled the same using survey data. However, experiments with a fully controlled environment may be better to find causal relationships between two or more constructs. This research therefore encourages further work in this area using other philosophical foundations and research methods in order to better understand consumers' need for affective and cognitive touch in a retail environment.

7.6 Summary

The key aspects of the thesis have been highlighted in this concluding chapter. Section 7.2 provided an overview of the thesis by explaining that this research explored the relationship between the various antecedents and consequences of consumers' need for touch in a retail environment. Accordingly, the stage-wise approach was explained, tracing the antecedents of consumers' need for affective and cognitive touch in a retail environment. At the first stage, personality and lifestyle traits were identified, followed by consumers' perceived knowledge and finally by consumer's choice goals, as the stage-wise antecedents of consumers' need for affective and cognitive touch in a retail environment. Similarly, the consequences of consumers' need for affective and cognitive touch in terms of impulse buying, satisfaction, brand loyalty and outcome regret were identified and a holistic model was developed and empirically tested.

Section 7.3 outlined the various theoretical contributions this thesis makes in terms of theory development, theory testing and the generalisation of theory. A contribution to theory development was made by conceptualising many new hypotheses for the first time. This research further contributed to theory by empirically testing all the hypotheses and by proposing a holistic model for consumers' need for affective and cognitive touch in a retail environment. This research also contributed to the generalisation of theory, mainly by not selecting any particular product, but modeling the various antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment.

Some of the benefits this research presents for practitioners and retail managers were provided in Section 7.4. Specifically, by identifying the varying roles approach and avoidance goal orientation play in the type of touch consumers' display in a retail environment, the study presented practitioners with an identifiable and targetable segment. Also, the important role consumers' need for affective and cognitive touch plays in respect to four key outcomes practitioners are concerned with, namely, impulse buying, satisfaction, brand loyalty and outcome regret, were presented.

Finally, Section 7.5 listed the limitations of the study and proposed directions for future research. The main limitation of the study was that it did not consider all the possible antecedents and consequences of consumers' need for affective and cognitive touch in a retail environment. However, specific directions for future research were suggested to gain a better understanding and insight into this important phenomenon of consumers' need for affective and cognitive touch in a retail environment.

Appendix – Overview of the Main Study Questionnaire

Dear Survey Participant,

Thank you for setting aside your valuable time to participate in this survey. Your responses to this questionnaire will provide us with valuable insight in understanding consumer behaviour in a retail environment. The survey takes about 10-15 minutes to complete.

Kindly read the following points before proceeding to the survey.

Data Protection: The data obtained and your responses to this questionnaire will be used only for research purposes.

Anonymity: The questionnaire is completely anonymous and data will be analyzed as a group and not individually. We do not keep a track of IP address and respect your privacy.

As to the survey, **THERE ARE NO RIGHT OR WRONG ANSWERS TO ANY OF THE QUESTIONS/STATEMENTS.** We are interested in your behaviour, as would occur in a natural setting. It is your **first impressions** and **immediate feelings** about the questions that we want. On the other hand, please do read each statement carefully as we want your true impression.

Though a few questions may sound similar, **kindly answer all questions.** If you miss answering any of the questions, a reminder will appear before you can proceed to the next page.

Questions are not product or retailer specific and are intended to find out your reactions in general.

Wherever required, please select your level of agreement with the statements in the questionnaire from choosing one of the seven following options

Strongly Disagree

Disagree

Slightly/Somewhat Disagree

Neutral/Neither

Slightly/Somewhat Agree

Agree

Strongly Agree

Please click the 'Next' button to proceed to the survey

In this section we would like to know how you view the prospect of shopping and your buying behaviour in general

		Strongly Disagree						Strongly Agree
1.	I am eager and excited to go shopping.	1	2	3	4	5	6	7
2.	I look forward and am thrilled at the prospect of going shopping.	1	2	3	4	5	6	7
3.	I buy things I do not need.	1	2	3	4	5	6	7
4.	I buy things I did not plan to buy.	1	2	3	4	5	6	7
5.	I consider myself an impulse purchaser.	1	2	3	4	5	6	7

Please indicate your level of agreement for the following questions on how you choose between and select products in a store

		Strongly Disagree						Strongly Agree
1.	When walking through stores, I can't help touching all kinds of products.	1	2	3	4	5	6	7
2.	Touching products can be fun.	1	2	3	4	5	6	7
3.	I like to touch products even if I have no intention of buying them.	1	2	3	4	5	6	7
4.	When browsing in stores, I like to touch lots of products.	1	2	3	4	5	6	7
5.	I place more trust in products that can be touched before purchase.	1	2	3	4	5	6	7
6.	I feel more comfortable purchasing a product after physically examining it.	1	2	3	4	5	6	7
7.	If I can't touch a product in the store, I am reluctant to purchase the product.	1	2	3	4	5	6	7
8.	The only way to make sure a product is worth buying is to actually touch it.	1	2	3	4	5	6	7

Kindly respond to the statement(s) you seem to have missed answering.

At times we think back on our purchase decisions, kindly indicate your level of agreement with the following statements

		Strongly Disagree						Strongly Agree
1.	I tend to regret buying certain products because it was not as important to me as I thought it would be.	1	2	3	4	5	6	7
2.	I wish I hadn't bought some products because it is now useless to me.	1	2	3	4	5	6	7
3.	I tend to regret some purchases because I did not need the product.	1	2	3	4	5	6	7
4.	I feel I do not put enough consideration into buying a product.	1	2	3	4	5	6	7
5.	With more effort, I feel I could have made better shopping decisions.	1	2	3	4	5	6	7
6.	I regret not putting enough thought into previous shopping occasions.	1	2	3	4	5	6	7
7.	I waste too much time making shopping decisions.	1	2	3	4	5	6	7
8.	I think I put too much thought in the buying process.	1	2	3	4	5	6	7

Kindly respond to the statement(s) you seem to have missed answering.

Moving a little away from shopping experience, we would like to know you a little better on your general day to day behaviour (from watching television…), spending/saving money and trust in instincts/intuition

		Strongly Disagree						Strongly Agree
1.	When I watch TV, I often channel surf, scanning through the available options even while attempting to watch one programme.	1	2	3	4	5	6	7
2.	When I am in the car/cab listening to the radio, I often check other stations to see if something better is playing, even if I am relatively satisfied with what I'm listening to.	1	2	3	4	5	6	7
3.	I'm a big fan of lists that attempt to rank things (the best movies, the best singers, the best sportsmen, the best novels etc.).	1	2	3	4	5	6	7
4.	My family/friends consider me to use my money very carefully.	1	2	3	4	5	6	7
5.	I budget my money very well.	1	2	3	4	5	6	7
6.	I am proud of my ability to save.	1	2	3	4	5	6	7
7.	When it comes to trusting people, I can usually rely on my instincts / gut feelings.	1	2	3	4	5	6	7
8.	My snap judgments are probably better than most others.	1	2	3	4	5	6	7

Kindly respond to the statement(s) you seem to have missed answering.

We set some standards for ourselves in general and do have preferences/opinions in general. Kindly indicate your thoughts by selecting an option from each statement below that best describes you

		Strongly Disagree						Strongly Agree
1.	I am very embarrassed by failure.	1	2	3	4	5	6	7
2.	I get upset when other people do not maintain the same standards I do.	1	2	3	4	5	6	7
3.	My parent(s)/loved ones hold me to high standards.	1	2	3	4	5	6	7
4.	I drive myself rigorously to achieve high standards.	1	2	3	4	5	6	7
5.	I have many more opinions than the average person.	1	2	3	4	5	6	7
6.	I pay a lot of attention to whether things are good or bad.	1	2	3	4	5	6	7
7.	I am pretty much considerate to many important issues.	1	2	3	4	5	6	7
8.	I usually worry about making a good impression.	1	2	3	4	5	6	7
9.	I am concerned about the way I present myself when in the presence of others.	1	2	3	4	5	6	7
10.	I am concerned what other customers think of me during shopping.	1	2	3	4	5	6	7

Kindly respond to the statement(s) you seem to have missed answering.

Only three more pages to go ☺

We return to a few questions on shopping…

Please indicate how accurately each of the following statements describe you

		Strongly Disagree						Strongly Agree
1.	I have a lot of knowledge on most products.	1	2	3	4	5	6	7
2.	My friends/relatives often consult me before shopping.	1	2	3	4	5	6	7
3.	I make satisfactory retail purchases based only on my own knowledge.	1	2	3	4	5	6	7
4.	I generally buy the same brands that I have previously bought.	1	2	3	4	5	6	7
5.	I do not change brands frequently.	1	2	3	4	5	6	7

This section has a few questions on your general shopping experiences in the past

		Strongly Disagree						Strongly Agree
1.	I find the process of deciding which product/items to buy satisfying in a retail store.	1	2	3	4	5	6	7
2.	I find the process of deciding which product to buy interesting.	1	2	3	4	5	6	7
3.	On hindsight, my choices during shopping turn out better than expected.	1	2	3	4	5	6	7
4.	I am usually satisfied with my purchases in a retail store.	1	2	3	4	5	6	7

Kindly respond to the statement(s) you seem to have missed answering.

In this last section, kindly tell us a little bit about yourself:

Please be rest assured that any personal information you provide is completely Anonymous and will (i) remain confidential (ii) will ONLY be reported in aggregate (group) form. These questions are not are main questions in this research but are necessary for a more meaningful interpretation of our results.

1. Age	____________
2. Gender	Male / Female
3. Highest level of Education attained	School / Bachelor's / Master's / PhD

Kindly respond to the statement(s) you seem to have missed answering.

Many thanks for sparing time to participate in this survey. We sincerely appreciate the time and effort you have put in to respond to the statements/questions.

If you have any queries or would like the results of this study to be shared with you, please do not hesitate to contact

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