

Thesis

Title: *The Influence of Consumption Values on Motorcycle Brand Choice*

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgement is made in the acknowledgements.”

Adam Gaskill

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Abstract

The aim of this thesis is to identify the brand choice moderators that influence consumers' choice of one brand over another. This research examines the influence of five consumption values on brand choice behaviour within the New Zealand market for new road motorcycles using stepwise discriminant analysis. The greater variety of brands, forcing consumers to make more brand choices combined with the large financial value of some brands was the major motivator for this research. In reviewing the literature a gap emerged relating to brand choice behaviour for durable goods. This research addresses this gap through using the durable goods category of road motorcycles. Findings from this research concluded that consumption values do influence brand choice behaviour within the New Zealand market for new road motorcycles.

Chapter 1: Introduction.

1.1 Introduction:

As noted by Corfman (1991) how consumers make choices among the many options available to them is a question that has long occupied researchers in marketing. The greater variety of brands is forcing consumers to make more choices between brands (Ambler 1997), exacerbating the need for greater brand choice research. As recently as August 2003 understanding how brands influence consumer behaviour was still identified as a research priority (Hoeffler & Keller 2003).

This study addresses the research problem of *what are the brand choice moderators that influence consumers' choice of one brand over another?* This research direction is taken from Malhotra, Petersen & Kleiser (1999), who in researching consumer decision-making highlighted the need to uncover the moderators on brand choice. In particular this study examines the influence of five consumption values on brand choice behaviour within the New Zealand market for road motorcycles. The consumption values used are sourced directly from Sheth, Newman and Gross (1991a) [SNG 1991a] 'Theory of Consumption Values' model.

Baltas (1998) and Biehal, Stephens & Carlo (1992) both define brand choice as the selection of a brand from a set of alternatives. Deighton, Henderson & Neslin (1994) and Wansink & Ray (2000) define brand choice as the probability that a brand will be selected for consumption.

Chapter 1.0 provides the reader with an overview of the research area of brand choice. This chapter firstly demonstrates the benefits of brands to consumers and firms. The nature and extent of this study is explored through discussing replication research and detailing the research of SNG (1991a), which this study is based on. Limitations of this study and key definitions are then examined followed by a description of how this thesis is structured.

1.2 Consumer Benefits of Brands:

Aaker (1996) contends brands benefit consumers in that they enhance customer's: interpretation/processing of information; confidence in the purchase decision; and use satisfaction.

Brands have been shown to have a beneficial effect on consumers (Ambler, 1997). In relation to consumer brand choice behaviour, Ambler (1997) contends brands benefit consumers in two key ways. Firstly, competing brands provide consumers with choices allowing consumers to choose a brand which best addresses their needs and wants. Secondly, competing brands add to consumer satisfaction through simplifying consumer problem solving and information processing, helping consumers feel good about their purchase and providing social benefits for consumers. Brands have been found to assist consumers in making choices and to simplify brand choice decisions for products and services (Srivastara & Shaker 1991; Krishnan & Chakravarti 1993; Lannon 1993; McQueen, Foley & Deighton 1993). It is argued in this study that understanding moderators of consumer brand choice behaviour would assist organisations in making their brand the brand of choice among their consumer markets.

1.3 Firm Benefits of Brands

Aaker (1996) links brands with providing value to firms by enhancing: efficiency and effectiveness of marketing programs; brand loyalty; prices/margins; brand extensions; trade leverage and competitive advantage.

Brands not only benefit consumers they also have benefits for their organisations. A strong empirical link exists between the concepts of brand equity and brand choice. Several researchers have highlighted this link. Lemon, Rust & Zeithaml (2001) see the role of brand equity as being three-fold. Firstly, brand equity attracts new customers. Secondly, it reminds customers about the firm's products and services. Thirdly, customers develop an emotional tie to the firm.

Wansink and Ray (2000) argue that brand equity increases the probability of brand choice. Further bolstering the link between brand equity and brand choice is Erdem,

Swait et al., (1999) who states "*it is clear that brand equity accrues over time via consumer learning and decision making processes. Thus, there is a need to know how consumer learning and choice processes shape and drive brand equity formation*" (Erdem et al., 1999, p.302).

The concept of brand equity has been explored from both consumer and organisational perspectives. The first consumer perspective employs a cognitive psychology approach and defines brand equity as the differential effect that brand knowledge has on consumer response to the marketing of a brand (Keller, 1993). The second consumer perspective of brand equity utilises an information economics approach and defines brand equity as the value of a brand as a credible signal of a product's position (Erdem and Swait, 1998). Examining organisational perspectives provides several brand equity definitions. Firstly, a very broad definitional approach is offered by Farquhar (1989) who defines brand equity as the added value to a firm or trade with which a brand endows a product. A more specific organisational brand equity definition is supplied by Aaker (1991, p.302) "*a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm*". This concept of brands as assets is now explored further.

Brands are valuable organisational assets that are beneficial to organisations. It is argued by Keller, Heckler et al., (1998) that a strong brand is beneficial to organisations as brands generate greater revenue and lower costs. It is noted by Grassl (1999) that brands are often a company's most valuable asset. The significant monetary value of some brands was highlighted in 1999 with the acquisition of Cerent Corp. by Cisco Systems for \$US6.9 billion despite Cerent Corp's balance sheet having assets of \$US50 million. Researchers agree that a powerful brand has a lasting influence on a company's sales (Aaker, 1995; Alsop, 2000).

Interbrand, the premier brand valuation firm (Aaker & Williams, 1998) publishes a top 100 brand value list. Interbrand calculates brand monetary value as the present value of the benefits of future ownership (Birkin, 1994). Interbrand's top 10 most valuable brands for 2003 are listed in table 1.1.

Brand Name	Value \$US billions	Brand Name	Value \$US billions
1. Coca-cola	70	6. Nokia	29
2. Microsoft	65	7. Disney	28
3. IBM	52	8. McDonald's	25
4. GE	42	9. Marlboro	22
5. Intel	31	10. Mercedes	21

Table 1.1 Interbrand Top 10 Brands (Business Week, 2003).

1.4 Nature and Extent of the Study:

This study is a replication of SNG (1991a) which sought to explain why consumers make the choices they do. It uses the 'Theory of Consumption Values' model developed by SNG (1991a) in its entirety and applies it to the New Zealand market for new road motorcycles. There has been a lack of replication research within the social sciences, including brand choice. Lindsay & Ehrenberg (1993) argue that this is caused by three reasons. Firstly, replication is difficult within the social sciences. Secondly, replication is mundane. Thirdly, modern statistics are not conducive to replication studies as they mostly focus on a single set of data. The benefits of replication research are that it assists in establishing the robustness and generalisability of empirical results and to prevent assimilation of type one errors into the literature (Hunter, 2001).

The SNG (1991a) model has been tested in 200 situations by SNG (1991a). Most of these tests focused on non-durable consumer goods. Minimal attention has been given to increasing the scope of the model to durable goods. However, durable goods are heavily branded in today's marketplace. Five out of Interbrand's top ten brands for 2003 are durable goods, these being goods that last longer than twelve months e.g. computers, washing machines and cars. This research is necessary, as differences exist between durable and non-durable product types. Hsu & Chang (2003) in their brand loyalty research found significant differences in purchasing behaviour between consumers of durable and non-durable goods. Consumers of durable goods were found to have higher tendencies to switch brands. Consumers of non-durable goods were loyal to multiple brands. This study will replicate the SNG (1991a) study changing the country in which the research is conducted to New Zealand, the product category and the researcher.

Using the New Zealand new road motorcycle market as the sample for this replication both qualitative and quantitative research methods were used.

1.5 Definitions of terms:

Definitions of key terms used in this study are detailed below:

Brand:	A name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors (American Marketing Association, 2002).
Brand Choice:	The probability that a brand will be selected for consumption (Deighton & Henderson 1994; Wansink et al., 2000).
Brand Equity:	Differential effect that brand knowledge has on consumer response to the marketing of that brand. (Keller, 1993).
Functional Value:	Perceived utility acquired from an alternative's capacity for functional, utilitarian, or physical performance (SNG, 1991a).
Social Value:	Perceived utility acquired from an alternative's association with one or more specific social groups (SNG, 1991a).
Emotional Value:	Perceived utility acquired from an alternatives capacity to arouse feelings or affective states (SNG, 1991a).
Epistemic Value:	Perceived utility acquired from an alternative's capacity to arouse curiosity, provide novelty, and/or satisfy desire for knowledge (SNG, 1991a).
Conditional Value:	Perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker (SNG, 1991a).

1.6 Organisation of Thesis:

The structure of this thesis is divided into five chapters. Chapter one provides the reader with an understanding of where this research is situated within existing marketing research. Chapter one also identifies the specific research problem addressed by this study and an overview of the methodology used in addressing this problem.

Chapter two reviews the literature surrounding brand choice. Brand choice literature is reviewed from the late 1800's where economic theory was dominant, through to today where cognitive models are more dominant. Gaps within the literature are identified and linked to the research problem of this study.

Chapter three details the research methodology employed for this study and covers research issues and hypothesis development, research design, data collection, scale development, sample selection and size, research timing, data analysis and research validity.

Chapter four presents the results and findings. Questionnaire results are examined including factor analyses and the discriminant stepwise analysis.

Chapter five concludes this study by discussing the results generated in Chapter four and includes the limitations of this study and possible future research.

1.7 Limitations:

This study is restricted to the exploration of consumer brand choice behaviour within the market for new road motorcycles within New Zealand. As noted by SNG (1991b p13) the theory is not applicable to choices that are group or dyadic based, that are made randomly or that are made involuntary or by mandate.

1.8 Conclusion:

This study of brand choice is of practical importance as the researcher has shown that brand choice leads to greater brand equity and that brand equity leads to greater monetary value of brands culminating in the enhancement of company assets. With reference to brand choice, Ehrenberg (1988) states "*in as far as such problems all involve the consumer, knowledge and understanding of buyer behaviour should be of help in dealing with them*" (Ehrenberg 1988, p.245).

The inclusion of Honda, BMW and Harley-Davidson in Interbrand's top 100 brand value list indicates that motorcycle brands are of significant monetary value and are therefore valuable organisational assets. Despite this, Aaker (1991) argues that brands are still not optimally managed. Aaker (1991) contends that for many businesses the brand name are its most valuable assets but seldom is the brand managed in a co-ordinated, coherent manner with a view that it must be maintained and strengthened. A robust understanding of consumer brand choice behaviour will assist organisations to influence the brand choice behaviour of consumers in their favour, leading to greater brand monetary value.

Chapter 2: Literature Review.

2.1 Introduction:

The current brand choice literature has been developed through the culmination of five different research streams, these being economics, psychology, marketing variables, consideration sets and consumer heterogeneity. This chapter firstly explores the five research streams in order of their development that lead to the development of current brand choice models and then these brand choice models are reviewed.

2.2 Economics:

Economic theory has contributed to brand choice research. This contribution is reflected in rational choice theory that postulates consumers seek to maximise utility of their decision. Utility is maximised through consumers assigning a value to each product/service based on an assessment of each product/service ability to satisfy needs and desires (Marshall, 1890; Stigler, 1950; Alchian, 1953; Strotz, 1953). Organisations and economists who adopt rational choice theory believe cost/price of an offer is paramount when consumers engage in utility maximisation, with lower prices leading to consumers purchasing more and higher prices resulting in consumers purchasing less. Followers of rational choice theory did not account for any irrationality. Rational choice theory argues buyers do not choose randomly and that rationality is the only reasonable explanation for their reactions to changes in relative prices (Jacoby, 2001).

This study argues that rational choice theory, in isolation, is limited in its ability to advance brand choice research. This position is based on behavioural science research that argues rational choice theory completely ignores the nuts and bolts of human psychology and assumes emotional considerations are neither relevant nor important (Jacoby, 2001).

Extreme opposition to rational choice theory argues “*a synthesis of research on consumer pre-purchase behaviour suggests that a substantial proportion of choices do*

not involve decision-making, not even on the first purchase” (Olshavsky et al., 1979 p.93).

To accept rational choice theory in its entirety would be to reject an extensive range of psychological factors including past purchase experiences, current expectations, motives, mood, personality, attitudes, values, beliefs, memory etc (Jacoby, 2001). This study argues that psychological factors also influence brand choice and are further explored in the next section.

2.3 Psychological Factors:

Psychological factors relating to brand choice behaviour contrast rational choice theory as it allows for irrational and/or random behaviour. In relation to brand choice, psychology has contributed through research in the following areas:

• Utility	• Optimal arousal and stimulation	• Needs
• Symbolic value	• Effects of situational contingencies	• Physical surroundings
• Motivation	• Nonverbal processing and brain lateralization	• Subliminal perception
• Personality	• Classifications of situational characteristics	• Attributes
• Reference groups	• Conspicuous and compensatory consumption	• Social surroundings
• Task definition	• Exploratory, variety-seeking, and novelty seeking behaviour	

Table 2.1 Psychology Contribution to Brand Choice (Sheth et al., 1991b)

The topics listed in table 2.1 summarises the contribution of psychology to brand choice research and illustrates the potential for more than just utility maximisation to explain and/or predict brand choice behaviour. The SNG (1991a) model used in this study is eclectic, with a strong reliance on economics, psychology and marketing research to substantiate the robustness of the constructs used in the model.

Many of these psychology research streams will be discussed in greater detail when the value constructs from the study being replicated are further explored in section 2.7.1.

2.4 Marketing Variables:

Marketing variables such as the four P's of marketing have been shown to influence brand choice behaviour (Chintagunta, 1999). The influence of marketing variables on choice behaviour is now further explored in this section and examines the role of advertising, promotions and product attributes.

2.4.1 Advertising:

It has been noted "*advertising plays an important and often controversial role in contributing to brand equity*" (Keller, 1998, p.221). Advertising's influence on brand choice is now discussed.

Deighton et al., (1994) examined switching and repeat purchase effects of advertising in well established and frequently purchased product categories (ketchup, liquid detergent, powder detergent). They found that advertising works through attracting switchers but did little in modifying the repeat purchase probabilities of those who have just purchased the brand (Deighton et al., 1994). This result is similar to that of Blattberg & Neslin (1989) who found sales promotions contributed to brand switching behaviour. Both studies recommend, that advertising efforts would be best focused on non-users of the brand, contradicting Ehrenberg (1974, 1998).

Baker (1999) restricted his assessment of advertising's influence on brand choice to affective conditioning and mere exposure based advertising strategies. It was found that mere exposure advertising strategies were equally effective as affective conditioning strategies despite mere exposure strategies being easier to implement (Baker, 1999). The study concluded that affective conditioning and mere exposure were not effective strategies to influence brand choice against well-established competitors. It was concluded that affective conditioning and mere exposure advertising strategies were effective against competitors who did not have superior performance characteristics or the motivation to deliberate at the time of purchase was low (Baker, 1999). This finding was further expanded by Baker & Lutz (2000) who concluded that advertising is most likely to influence brand choice when it is both relevant and accessible.

Peripheral advertising cues were found to influence brand choice (Miniard, Sirdeshmukh & Innis, 1992). Miniard et al., (1992) found that peripheral persuasion altered both consumers' choices as well as their attitudes. It has also been found that advertising's influence on brand choice can be moderated by consumer's attitude toward the advertisement. Bichal, Stephens & Curlo (1992) examined how attitude toward an advertisement effects brand choice. Their research expanded upon the research into attitudes towards brand. They concluded that attitude towards an advertisement has an independent effect on brand choice. (Mitra, 1995) argues that consideration sets can be effected by advertising as advertising was found to have a stabilising effect on consideration set composition. Advertisings effect on consideration set size was researched by (Mitra, 1995) who found that reminder-type advertising increased consideration set size.

Leading the opposition to advertising's influence on brand choice behaviour is Ehrenberg (1974, 1988). Ehrenberg's research has predominately explored brand choice and brand loyalty among established and frequently purchased products. Ehrenberg (1974) postulates that advertisings main role should be to reinforce feelings of satisfaction for brands already purchased as opposed to focusing on acquiring new users.

Ehrenberg (1974) reinforces his stance that advertising is of limited value to brand choice behaviour through four arguments. Firstly, he claims that there are many product classes that have little if any mass media advertising but enjoy strong growth such as sailboards and marijuana. Secondly, small and medium brands survive even though their consumers are exposed to vast amounts of advertising for the brand leaders. Ehrenberg (1974) third argument is that there is no suggestion that failure occurs less often for highly advertised new brands. Lastly, the main difference between a leading and a small brand is that the leader has more buyers.

The majority of research supports advertising's influence on brand choice behaviour. The role of promotions in brand choice behaviour is now explored.

2.4.2 Promotions:

Papatla & Krishnamurthi (1996) believe practitioners are forced to focus on short-term results by their employers and therefore use sales promotions to this end with advertising taking too long to generate sales. Sales promotions being short-term incentives designed to encourage consumers to purchase a product or service. Blattberg & Neslin (1990) estimated that in frequently purchased product categories at least 50 percent of unit sales were made during promotions, this figure is supported by Abraham & Lodish (1990), Jones (1991). Bowa & Shoemaker (1987) found sales promotions to have positive effects for new customers only, with the likelihood of existing customers purchasing their existing brand not increasing. Allenby & Ginter (1995) found merchandising promotions to increase brand choice probability.

The argument against the use of sales promotions is lead by Dodson, Tybout & Sternthal (1978). They portend that sales promotions ultimately lead to reduced brand loyalty. Through exploring brand switching behaviour Guadagni & Little (1983) found customers who switched to a brand because they wanted to as opposed to being coerced through a promotion were more loyal. These findings do not appear to have dated as Papatla et al., (1996) findings are consistent in that they found sales promotions to erode brand loyalty and increase price sensitivity. Papatla et al., (1996) is supported by Mela, Gupta & Lehmann (1997) who in their examination of promotions effect on brand choice in the long-term found that price promotions increases price sensitivity amongst both loyal and nonloyal consumers. In examining the after-effects of price-promotions, it was found that extra sales of a brand came mostly from the brand's existing customer base (Ehrenberg, 1994).

Promotions research has focused largely on brand loyalty as opposed to brand choice, yet the wide use of promotions may indicate they are effective in attracting new customers.

2.4.3 Product Attributes:

Product attributes have been shown to influence brand choice (Gatignon & Robertson, 1991; Rogers, 1983). Building on these findings Nowlis & Simon (1996) investigated the factors that moderate the impact of new product features on brand choice. It is argued by Nowlis et al., (1996) that this research is important as it can assist practitioners in deciding to add a new feature to an existing product or focus resources on alternative actions to generate sales. Specifically Nowlis et al., (1996) sought to determine if the product characteristics to which the feature is added to moderated the impact of the new feature on brand choice as was found by Herr (1989).

Nowlis et al., (1996) based their research on the concept of multiattribute diminishing sensitivity where a new feature contributes more value to a relatively inferior product than to a superior one (Nowlis et al., 1996). The concept of multiattribute diminishing sensitivity is supported by Lynch, Chakravarti & Mitra (1991); and Martin, Seta & Crelia (1990). Nowlis et al., (1996) found that a new feature adds greater value and increases the probability of brand choice where the brand: 1) has relatively inferior existing features; 2) is associated with lower (perceived quality); 3) has a higher price; 4) is both high-priced and high quality.

2.5 Consideration Sets:

Supporters of consideration sets to explain and/or predict brand choice, view brand choice as a two-stage process. Consumers reduce the number of brands available or that the consumer is aware of down to a set that they would consider purchasing. It is this reduced set that is labelled a consideration set with the second stage of choice being restricted to the consideration set formulated in stage one.

Vroomen et al., (2001) argue that consideration sets are useful in understanding the brand choice process. Vroomen et al., (2001) however, argue that brand choice is a three-stage process through including a choice set. The choice set is a set of brands considered immediately prior to the final choice.

Most of the literature surrounding consideration sets and brand choice has focused on a cost-benefit approach that assesses whether a brand is good enough to be considered. In their review of the literature surrounding brand choice Malhotra et al., (1999) found the predictive ability of choice models was improved by the incorporation of a two-stage approach of consideration and then choice. Consideration sets have been proven to be useful in forecasting demand for new products (Roberts & Lattin, 1997).

The concerns with using a consideration set stage in brand choice are that there is a lack of research to either confirm or disconfirm that the same utility function is appropriate at both the consideration and choice stages (Simonson, Carmon et al., 1994). Additionally, consideration sets may change as a result of marketing initiatives for the brands in a product category (Hutchinson, Raman et al., 1994).

Data and design issues exist with consideration set research largely from the historical reliance on scanner data preventing the examination of durable good purchasers that have a lower purchase probability.

Horowitz & Louviere (1995) question the existence of consideration sets and what value they can add to brand choice if they did exist. They found that in using consideration sets no improvement was found in the predictive performance of choice models.

2.6 Consumer Heterogeneity vs. Homogeneity:

The concepts of consumer heterogeneity and homogeneity are perhaps the two major dividers among researchers of brand choice due to the extreme differences in these two concepts.

Those who support the concept of consumer heterogeneity argue that no two consumers are identical and therefore differences among consumers need to be considered when examining brand choice. Differences among consumers can be found in the level of consideration given by consumers to a range of brands; the frequency with which consumers purchase brands with some consumers never purchasing and other making frequent purchases (Kalwani, Meyer et al., 1994). Brand choice heterogeneity has been defined as “*where demand functions exists such that market demand can be disaggregated into segments with distinct demand functions*” (Dickson et al., 1987).

Baltas (1998) in his advancement of a brand choice model rooted in utility theory supports the inclusion of heterogeneity in brand choice models as he found perceived utility varied from consumer to consumer. Household characteristics including demographics, household size and social factors were found to influence brand choice and thus support brand choice research that addressed heterogeneity (Chintagunta et al., 1998; Vroomen et al., 2001). Heterogeneity has also been found to be important in modelling variety seeking behaviour. Chintaguntam (1999) incorporated the concept of consumer heterogeneity into his model of brand choice to account for variety seeking behaviour.

Opposing the consumer heterogeneity concept are consumer homogeneity researchers who argue that little differences exist among consumers. Ehrenberg, the major contributor in this area, reasons that buyer behaviour can be predicted using the penetration and average purchase frequency of a product (Ehrenberg, 1988). Ehrenberg (1998) argues against the inclusion of consumer variables in brand choice models due to the randomness of consumer purchases and evidence to suggest current purchases are independent of previous purchases.

Ehrenberg (1988) argues most markets exhibit stationary conditions with near-zero changes in the sales-level of the brand being analysed. Ehrenberg (1988) is supported by (Keng, Uncles et al., 1998) who found brands were largely substitutable with near-zero changes in sales levels for brands they observed.

Keane (1997) found support for using both state-dependence and heterogeneity in his brand choice model. Not exclusively relying on stationary concept based models is supported by (Erdem & Sun 2001) who cautions against the exclusive use of stationary concept based brand choice models such as those proposed by Ehrenberg (1988) and instead incorporated both state-dependence and unobserved heterogeneity into their model of brand choice.

Sheth & Sisodia (1999) argue that the work of Ehrenberg is outdated and is based largely on research conducted in the 1950's and 1960's. This era exhibited relative demographic homogeneity Carmody (1991) with the market for most goods and services able to be divided into large segments via demographic, socio-economic class

and many other variables. Demographic homogeneity no longer exists in the markets of today. Higher levels of diversity in income, age, ethnicity and lifestyle no longer facilitate mass segmentation as enjoyed in the 1950's and 1960's (Sheth et al., 1999).

Sheth et al., (1999) argues strongly as to why homogeneity is no longer salient to consumer behaviour research. Sixty percent of United States households were considered middle class in 1960. This was expected to decrease to 35 percent in 2000 with the upper class expanding to 30 percent. Changing age patterns has led to greater polarisation with no one age group dominating the population and with each age group having different values, priorities and concerns. Carmody (1991) forecasted that 80 percent of the United States population growth in the twenty years to 2010 would come from African American, Hispanic and Asian communities. As with age, each ethnic grouping has a different set of values, priorities and concerns. Households consisting of a married couple with children are decreasing and in 1991 represented 27 percent of all households. Another 25 percent of households are people who live alone and households of married couples with no children represent 29 percent of all households (Carmody, 1991). These four forces combine to argue against the use homogeneity as they point to the increasing fragmentation of markets leading to a large number of distinct market segments.

Of his own theory, Ehrenberg (1988), states "*we cannot expect too much from a model whose only brand-specific input is each brand's market share*" (Ehrenberge, 1998, p.96). Referring to brand choice models that, like those of Ehrenberg (1988), assume consumers to have stationary purchase probabilities Elrod (1988) argues that these models are best suited to frequently purchased product categories. It is these product categories that have received most of the brand choice research attention.

The greater availability of advanced consumer analytical software couples with the demographic changes highlighted by Sheth et al., (1999) increase the saliency of consumer heterogeneity concepts.

The literature relating to brand choice has led to the development of brand choice models. Brand choice models are now reviewed including the SNG (1991a) theory of consumption values which this study is based on.

2.7 Brand Choice Models:

Brand choice models can be segregated into two broad categories of either human behaviour models or stochastic models that concern sequences of events which are governed by probabilistic laws (Karlin & Taylor 1997). This differentiated replication study used a process orientated human behaviour model and therefore only limited attention is given to discussing stochastic models.

2.7.1 Human Behaviour Models of Brand Choice:

Human behaviour models of consumer behaviour have been useful in explaining brand choice behaviour. Human behaviour models have been developed since the 1950s, with many remaining applicable in today's marketplace or have been further developed into models that are more relevant in today's marketplace. Key human behaviour models are now discussed.

Allport Socio-Psychoanalytic Model

Initially developed to investigate prejudice, Allport (1954) identified an extensive set of exogenous and endogenous variables that could affect human decisions toward a product or brand. Allport (1954) sees brand choice behaviour being an outcome resulting from the interaction between an individual and their environment and the brand. Allport (1954) was adapted by Kassarian (1965) who considered sociocultural factors (culture and social class), social factors (group influence), individual factors (motivation, personality, cognition) and decision process (purchase decision). Therefore brand choice behaviour could be explained and/or predicted by examining both the consumer and their environment. This is supported by Andreasen's model.

Andreasen's Model

Andreasen (1965) model of consumer choice behaviour focuses on the individual. It assumes that the individual has no prior knowledge of the product. Andreasen (1965) proposed that information received by the individual went through a filtration process, which is heavily influenced by the individual's pre-existing attitudes. Andreasen (1965) model was one of the first buyer behaviour models to consider environmental and individual variables as well as promoting examination of the role of emotions in consumer behaviour (Waters, 1974).

Freudian Psychoanalytic Model

Whilst the Freudian model of the psyche, id, ego and superego is embroiled in controversy and heated debate it has led to some useful understandings of consumer behaviour, namely providing a simplistic reasoning as to how the conscious and unconscious mind operates. Consumers are influenced by both product symbolism and economic factors, the acknowledgement of the unconscious supports appealing to consumer subtly rather than relying on exclusively logical/rational appeals (Waters, 1974). This may account for the use of emotive appeals used in brand advertising.

Pavlov Learning Model

Classic conditioning theory focuses on the assumption that people can be taught by association. Classic conditioning has been used by marketing practitioners to create an association between a product or brand with some type of beneficial outcome such as pleasure, romance or quality. Through identifying what beneficial outcomes a firm's target market are seeking firms can then try to associate their brand with that outcome to increase the probability of their brand being purchased.

Howard-Sheth Model

The Howard-Sheth model is a comprehensive model of consumer behaviour and is comprised of four key areas, being 1)inputs, 2)perceptual constructs, 3)learning constructs and 4)outputs. Inputs are split into three categories of 1)significance, 2)symbolic and 3)social. These inputs are then picked up by a consumer's senses and stimulus ambiguity results. Stimulus ambiguity leads to an overt search for additional information and perceptual bias through the consumers attitudes, confidence and motives. This new information can cause changes in motives, choice criteria, intentions and brand comprehension which in turn affect confidence, intention and purchase. The Howard Sheth model also considers post purchase factors with information being fed back into the model affecting brand comprehension, attitudes and intentions. This model identifies stages in the consumer decision making process where firms can influence brand choice behaviour.

Consumption Values Model

Advancing the Howard-Sheth model, SNG (1991a) developed a theory of consumption values. Their theory of consumption values is replicated in this study. The theory was developed to explain and predict market choices. The model has been tested in three different choice type settings of 1)to buy or not to buy 2)the choice of one type over the other and 3)the choice of one brand over others. The theory is based on three axioms 1)market choice is a function of multiple values 2)these values make differential contributions in any given choice situation and 3)the values are independent (SNG, 1991a).

SNG (1991a) identified five values that impact on market choice behaviour. These values are depicted in figure 2.1 below:

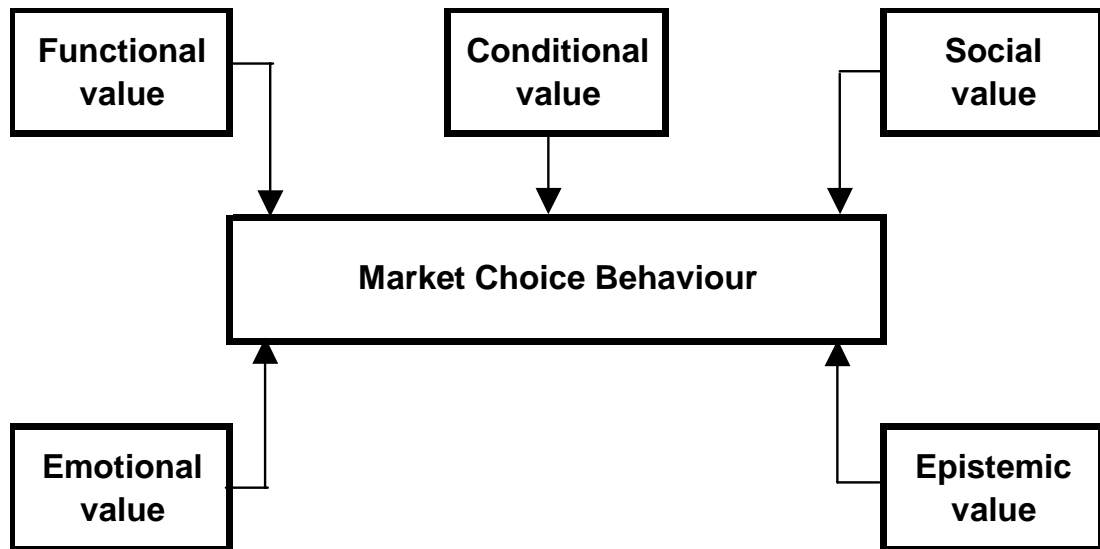


Figure 2.1 Theory of Consumption Values Model (SNG, 1991a)

SNG (1991a) argue that most market choice behaviour involves two or more consumption values. They define each of their five consumption values as follows:

Functional Value: The perceived utility acquired by an alternative as the result of its ability to perform its functional, utilitarian, or physical purposes. Alternatives acquire functional value through the possession of salient functional, utilitarian, or physical attributes.

Social Value: The perceived utility by an alternative as a result of its association with one or more specific social groups. Alternatives acquire social value through association with positively or negatively stereotyped demographic, socio-economic, and cultural-ethnic groups.

Emotional Value: The perceived utility acquired by an alternative as a result of its ability to arouse feelings or affective states. Alternatives acquire emotional value when associated with specific feelings or when they facilitate or perpetuate feelings.

Epistemic Value: The perceived utility acquired by an alternative as a result of its ability to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge. Alternatives acquire epistemic value through the capacity to provide something new or different.

Conditional Value: The perceived utility acquired by an alternative as a result of the specific situation or the context faced by the choice maker. Alternatives acquire conditional value in the presence of antecedent physical or social contingencies that enhance their functional or social value, but do not otherwise possess this value.

The second axiom of their theory of differential contributions of the consumption values posits that the five values make different contributions dependent on the choice situation. In some choice situations some values contribute more than others.

The third axiom of their theory of independence among values sees the intercorrelations between the five values being very low. SNG (1991a) argue that their consumption values relate additively and contribute incrementally to choice.

The model is limited to choice by the individual and only addresses choices, which are systematic and voluntary. SNG (1991a) argue that random or stochastic choices are not uncommon in market choices but argue that this is largely confined to choice situations of low importance or little significance to the consumer. The model requires that there is some degree of deliberation in decision making, with the decision being of some importance to the consumer. The model is also only suitable for voluntary decisions, with mandatory or involuntary decisions being excluded.

SNG (1991a) cite the eclectic nature of their consumption value model as a major strength. The model draws upon research in economics, sociology and psychology. Whilst the model draws on varied research it remains both comprehensive and parsimonious.

The SNG (1991a) model is application specific, which differentiates the model from most other brand choice or consumer behaviour models. When using the model, data is gathered to determine which values drive decisions for the current application. For

example if the model were to be used in the personal computer market then exploratory research would be conducted into the personal computer market with the results forming the content of the written questionnaire used in the theory.

Values, such as those incorporated into the SNG (1991a) theory of consumption value model have been extensively researched. It is argued by Agle & Caldwell (1991) that values are an integral part of our daily lives. Kotler, Armstrong et al., (1996) state *“given that a brand says something about the buyer’s values, marketers attempt to identify the consumers whose value coincide with the brands delivered benefit package”* (Kotler, Armstrong et al., 1996, p.80).

Each of the five consumption values of SNG (1991a) model are now discussed.

2.7.2 Functional Value:

The research stream surrounding functional value can be traced as far back as Marshal (1890) who advanced economic research through exploring the concept of utility or the level of enjoyment/satisfaction resulting from a products use. Utility research is based on the concept of economic man, where decisions are guided through consumers desire to maximise utility from a decision.

Utility theory postulates consumers seek the maximum number of benefits at the lowest possible cost. Erickson & Johansson (1985) examined the role of price in product evaluations. They found in the automobile market that higher priced cars were perceived as possessing (unwarranted) high quality (Erickson et al., 1985).

Utility theory is heavily criticised by Katona (1975) who contends that utility theory is a one-motive theory attempting to explain a multiple-motive phenomenon. (SNG, 1991a) agree with Katona (1975) hence their model of consumption values consisting of five values. Central to functional value are the physical attributes of a product or brand. SNG (1991a) cite the findings of Ferber (1973) who found an alternatives utility may be derived directly from its attributes or characteristics.

More current research still supports the importance of product attributes in creating perceived value, a major determinant of buying decisions (Nowlis et al., 1996). Mudambi et al., (1997) supports this view through concluding perceived value as having a major influence on brand choice. There is substantial support for the role of product attributes being central to many value maximisation models of consumer choice, namely multiattribute utility models (Hutchinson et al., 1986); noncompensatory choice models (Tversky, 1969); and the elimination-by-aspects heuristic model (Tversky, 1972).

Adopting the view of Lancaster (1971) that products are mostly viewed as bundles of attributes and benefits then it is only logical to study their impact on brand choice behaviour. Recognising the importance of product attributes, Muthukrishnan & Kardes (2001) investigated the conditions under which people developed persistent preferences for product attributes. Muthukrishnan et al., (2001) found that experience with a brand caused persistent preference of the attributes of that brand. This remained true even when the attributes were considered irrelevant, as long as it was a differentiating attribute in the initial choice.

Not all attributes are considered equal. Inman (2001) found that consumers were more likely to make switching decisions based on sensory-attributes than on other attributes or brand considerations. Inman (2001) cites research into physiobehaviour which has sought to explain why consumers seek variety on some attributes and not others. Inman (2001) argues that consumers are more likely to seek variety on attributes that interact with human senses. Inman (2001) examined the role of flavour in choice decisions for food and found consumers to switch more consistently between flavours than between brands.

Functional value, as defined by SNG (1991a) encapsulates Dillion, Madden et al., (2001) brand specific associations concept that includes features and attributes of a brand. Dillion et al., (2001) argues that most models of brand choice fail to provide actionable information for practitioners, and states “*although brand ratings capture the favourability of brand associations; they often do not enable marketing managers to disentangle brand-specific associations from other effects*” (Dillion et al., 2001, p.417). Dillion et al., 2001 developed a decompositional model to address this problem which they conclude provides more information than a mere rating of a brand on an attribute.

They found that brand specific attributes dominate general brand impressions where consumers have had direct brand usage experience.

2.7.3 Social Value:

Social value concerns an alternative's association with one or more distinctive social groups. SNG (1991a) social value construct is based on research into social class, symbolic value, reference groups, opinion leadership and conspicuous consumption. These research streams are now further explored.

Social Class

Warner & Lunt (1941) are touted among research in social class as pioneers who developed the modern definition of social class. The definition is "*by class is meant two or more orders of people who are believed to be, and are accordingly ranked by members of the community, in socially superior and inferior positions*" (Warner et al., 1941, p.82]. Whilst this definition is over sixty years old it is still cited as late as 1997 by Sivadas (1997).

Social class influences consumption and purchase behaviour Gronhaug & Trapp (1989). A conclusion reached after examining how brands from narrowly defined groups of products and services are perceived as appealing to different social classes. Through their findings Gronhaug et al., (1989) contend that social class research is useful to practitioners through providing: 1)a basis for positioning a new product; 2)a point of departure for designing marketing communication strategies; and 3)a basis for change of distribution decisions.

During the 1990's the relevance of social class to marketing was questioned. Tomlinson & Warde (1993) cite many possible factors that have weakened the class structure in Britain. Such factors include: 1) class dealignment in voting 2) emergence of new social movements 3) cultural processes becoming more detached from materialistic possessions. Despite a move away from the importance of social class Tomlinson et al., (1993) found that social class differences remained relevant in consumers eating habits. They found that eating habits were not so much income related but reflected one's class.

This was especially prevalent in publicly visible activities such as eating out; choice of alcoholic drink where there was an increased social distance between classes.

Sivadas (1997) replicated the studies of Levy 1966; 1978 and Hisrich & Peters (1974) to assess the existence of social class influence on consumption in the present day, that being 1997. Using a geodemographic system Sivadas (1997) found social class shapes lifestyle and recreational choices, and media habits.

Opinion Leadership

Opinion leaders have been shown to influence brand-choice. Chan & Misra (1990) see opinion leadership as playing an important role in new-product adaptation and diffusion. Berkman & Gilson (1986) found word-of-mouth communications to have greater influence on consumers than advertising messages. Chan et al., (1990) cite numerous studies in support of the positive influence opinion leadership can have on consumer choice behaviour (Black 1982; Childers 1986; Dickerson & Gentry 1983; Hirschman 1980; Price & Ridgway 1983; Riecken & Yavas 1983; Rogers 1983). Engelland, Hopkins et al., (2001) define opinion leaders as "*individuals who have a combination of knowledge or expertise about a product category and who are frequently able to influence others with this information*" (Engelland et al., 2001).

Conspicuous Consumption

Research into what is now known as conspicuous consumption was first conducted in 1899 by Veblen (1899). Commonly referred to as Veblen effects it was found that wealthy individuals consumed highly conspicuous goods and services to signal their wealth and in turn gain greater social class. So called Veblen effects are defined as consumers willingness to pay a higher price for a functionally equivalent good (Bagwell & Bernheim, 1996). It is further noted by Bagwell et al., (1996) that Veblen effects occur more often for luxury goods. Bagwell et al., (1996) split conspicuous consumption into two categories 1) invidious comparison and 2) pecuniary emulation. Invidious consumption is where an individual of high social status distances him/herself from members of a lower class through their consumption behaviour. Pecuniary emulation involved consumers of a lower class consuming conspicuously to be thought of as a member of a higher class.

Trigg (2001) provides a comprehensive review of the literature surrounding conspicuous consumption citing its origins in the work of Veblen (1899). In his review of the literature Trigg (2001) identified three arguments against conspicuous consumption. The first argument against Veblen's work is that it is too restrictive, with the trickle down effect ignoring any possible trickle-up effect. Trigg (2001) argues that the upper class also use their culture to distinguish themselves from lower classes and that this culture does not trickle down. Bourdieu (1984) uses the example of food with lower classes focusing on satisfying hunger, where as the upper class treat food as an art form.

The second argument against conspicuous consumption is that conspicuous consumption lacks subtlety. This is countered by Trigg (2001) who contends that conspicuous consumption is an unconscious cultural force that leads to the purchase of expensive items that are not even seen by outsiders citing underclothing and kitchen utensils as examples.

The third and final argument against conspicuous consumption is that the relationship between social class and consumption has dissipated. This is countered by Trigg (2001) who uses the same counter argument as used against trickle-up theory citing cultural capital as a remaining differentiator of class.

Symbolic Value

Consumers have been found to purchase products for reasons other than for the functional properties of products (Leigh & Gabel (1992). Consumption that is driven by symbolic values based on objects or events having symbolic value in society. In consumer behaviour, symbolic purchasing behaviour results in consumers purchasing a product of what it signifies as defined by society. It is argued by Leigh et al., (1992) that the symbolic interactorism perspective has been significant in the development of symbolic consumption behaviour. Symbolic interactorism involves consumers identifying with a particular group and then exhibiting purchase behaviour consistent with a group such as owning a particular motor vehicle or wearing certain clothes. Leigh et al., (1992) contend that there are situations in which consumers may be susceptible to the adoption of symbolic purchasing behaviour, these being 1) consumers in role transition 2) consumers who place high levels of importance on social group

membership and advancement and 3) consumers aspiring to gain membership in a particular social group.

Richins (1994) examined the consumers possessions and their expressing of material values. With reference to symbolic value they found a person's material values were communicated through socially constructed stereotypes about possessions and about the relationship between possessions and their owners (Richins, 1994).

The concept of symbolic consumption behaviour was supported by Schwer & Daneshvary (1995) who found the purchase of western clothing to be related to the consumers involvement with the rodeo society, a finding that also supports the research stream of reference groups.

Reference groups

Reference groups have been defined as any collective influencing the attitudes of those individuals using it as a reference point in evaluating their own situations Hyman (1942). Reference groups are relevant to consumer choice behaviour through its strong involvement in purchases of highly visible or publicly consumed products (Bourne, 1957; Venkatesan, 1966, Witt, 1969; Witt & Bruce, 1970; Bearden & Etzel, 1982). Childers & Rao (1992) examined the difference in influence of peer and family member reference groups. Their findings show that where both luxury and necessity type products are consumed in public, peer reference groups have a stronger influence on behaviour than family reference groups. Where both a luxury or necessity type product is consumed in private, family reference groups are stronger than peer reference groups.

Kim & Kang (2001) through examining the effects of ethnicity and product on purchase decision making found that 1) ethnicity had an effect on family, peer and co-worker influence on consumer purchase behaviour. They also found that product type effected the influence of family, peer and co-worker influence on consumer purchase behaviour.

2.7.4 Emotional Value:

Research surrounding brand choice behaviour has examined consumers motivation to choose between brands. Motivational research was responsible for discovering consumer choice could be based on noncognitive and emotional motives expressed through product symbolism (SNG, 1991b). Motivation has been defined as goal-directed arousal (Park & Mittal, 1985). This definition is refined by MacInnis, Moorman et al., (1991) for their research into brand informant processing. Their definition of motivation is “*a consumer desire or readiness to process brand information*” (MacInnis, Moorman et al., 1991, p.34). Motivation is important in that when motivation to process an advertisement is low, the consumers attention can move to other stimuli (MacInnis et al., 1991). It is proposed by MacInnis et al., (1991) that attention to an advertisement can be increased through appealing to intrinsic hedonic needs and cite Isen, Means et al., (1982) as supporting evidence who found consumers focus on stimuli that make people feel good. This is prevalent in the number of advertisements that incorporate sexual or appetite appeals.

Dholakia (1999) through exploring shopping behaviours and motivations found cultural and socialisation conditions were key in creating the distinct approaches and motivations for shopping among the two sexes. The study concluded that gender was far more important than age, education and occupation in impacting on shopping behaviours, motivations and brand choice behaviour.

Hausman (2000) has explored consumer motivation in impulse brand choice behaviour. Hausman (2000) adopts the widely used definition of impulse buying, being “*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*” (Rook, 1987, p.191). It is this emotional conflict that links this research to that of emotional value and brand choice behaviour. Hausman (2000) found impulse buying to be motivated by hedonic desires, social needs and self esteem. Hedonic desires included needs such as fun, novelty and surprise. Consumers who had strong hedonic desires describe shopping as an experience. Consumers who possessed strong social needs viewed shopping similarity to hedonic consumers in that shopping was treated as an experience, but an experience to be shared with friends and family.

Consumers whose impulse buying was driven by self esteem and the need for self-actualisation were seeking to establish an identity. Hausman (2000) concludes with a strong recommendation that impulse buying is a common occurrence and retailers should do all that they can to encourage it. However, Hausman (2000) fails to assess the relationship between the three motivators she identified.

It is contended by Lastovicka & Joachimsthaler (1988) that previous research into the prediction of product choice with personality or lifestyle traits suffered consumer researchers' methods that did not generate true results. In addressing this issue Lastovicka et al., (1988) built upon Epstein (1979) to develop a robust method for detecting personality-behaviour relationships. Epstein (1979) argued that single-item measures of behaviour have low test-retest reliability. Lastovicka et al., (1988) generate two findings. Firstly, reliability of a behaviour measure increases with the addition of more occasions in the behaviour measure. Secondly, they detected lifestyle-behaviour relationships increase as the behaviour measures reliability increases.

Further exploring personality and consumer behaviour, Rallapalli et al., (1994) examined consumer ethical beliefs and personality. They found existence of an association between personality traits and individual consumer ethical beliefs. Specifically they found individuals with high needs for autonomy, innovation, aggression and risk taking tended to have less ethical beliefs concerning possible consumer actions. Additionally, individuals with high need for social desirability and individuals with a strong problem solving coping style tended to have more ethical beliefs concerning possible consumer actions.

Significant research attention was given to emotional aspects of consumer behaviour during the 1980's and was spearheaded by Holbrook & Hirschman (1982). Holbrook & Bata (1987, p.17) states "*we all recognise emotional phenomena as pervasive components of human behaviour in general and consumer behaviour in particular. Yet, like the way in which weather reporters treat problematic news about hurricanes and tornadoes, we dutifully note the key role played by emotion in consumers' lives without doing very much about it*". The majority of research in this area has focused on emotions influence in consumer responses to advertising. Holbrook et al., (1987) in assessing emotions as mediators of consumer responses to advertising concluded that pleasure, arousal and domination acted as mediators in consumers response to ads.

Allen, et al., (1992) argued that historical use of attitudes as predictors of behaviour was dangerous as attitude constructs only reflected a tiny subset of emotive experience. Their research into blood donning found that emotions can supplement attitudinal judgements for behavioural prediction. They found emotions useful in diagnosing consumption behaviour.

Nyer (1997) supports the finding that emotions are determinants of various consumer behaviours. Nyer (1997) conducted research into the antecedents of emotions. Nyer (1997) generated empirical support for a cognitive model of consumption emotion, finding emotions to be consequences of the cognitive appraisals of goal relevance, goal congruence, and coping potential. Goal-congruent situations were found to lead to positive emotions and goal-incongruent situations to lead to negative emotions.

Pham (1998) argues that consumer behaviour research has failed to explore the role of affect on consumer decision making. Whilst his research is largely exploratory, results show that affect plays a more central role in consumer decision-making than previously recognised. Pham (1998) found that in “the how-do-I-feel-about-it?” heuristic, affect was the essential decision input.

Bagozzi, Gopinath et al., (1999, p.184) define emotion as “*a mental state of readiness that arises from cognitive appraisals of events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically; and may result in specific actions to affirm or copy with the motion, depending on its nature and meaning for the person having it*”. Bagozzi et al., (1999) differentiate emotions from mood and attitude. Bagozzi et al., (1999) argue emotions to have a specific referent that mood and attitude do not have. Bagozzi et al., (1999) found emotions to have an influence on memory, creativity, evaluation, information processing and customer satisfaction.

Empirical evidence that interpersonal influence on the evaluation of a product can stem from the beliefs one person conveys to another (Brown & Reingen, 1987) lead to Howard & Gengler (2001) exploring how one person’s emotional state can influence another person’s evaluation of a product. They found that emotional contagion can have a positive bias on product relevant attitudes of consumers Howard et al., (2001).

2.7.5 Conditional Value

The conditional value construct used by SNG (1991b) concerns an alternative's ability to provide temporary functional or social value in the context of a specific and transient set of circumstances or contingencies. In practical terms "*when a choice is driven by conditional value, the outcome is contingent on antecedent circumstances that may cause the consumer to deviate from her or his typical or planned behaviour*" SNG (1991b, p.69). Research into conditional value and brand choice has focused on temporal issues, antecedent states and task definition, all three are now further explored.

In exploring the contextual and temporal components of reference pricing Rajendran & Tellis (1994) found both contextual and temporal reference prices to be significant in the prediction of consumer choice behaviour. Rajendran et al., (1994) also found that contextual components were at least as strong as temporal components. Gourville (1998) examined the effect of temporal reframing on transaction evaluation. Citing practitioners use of pennies-a-day strategies (where the price of a product or service is expressed as a small ongoing expense rather than conveying pricing information at the aggregate level) for magazine subscriptions and the sponsoring of needy children in third world countries Gourville (1998) argues pennies-a-day strategies require research attention. Gourville (1998) found evidence supporting the effectiveness of pennies-a-day price communication strategies, specifically he found that pennies-a-day framing could decrease the perceived monetary magnitude of a consumer transaction relative to a more aggregate framing thereby affecting the attractiveness of the proposed transaction. This finding supports the continued use of pennies-a-day strategies as they have the potential to modify consumers perception favourably as to the affordability of products and services, which when previously considered using aggregate pricing information may have been perceived as unaffordable.

Belk (1975) promotes five categories of conditional variables that can influence consumer behaviour these were 1) physical surroundings, 2) social surroundings, 3) temporal issues, 4) task definition and 5) antecedent states. Furthering the research of Belk (1975); Nicholls, Roslow et al., (1996) examined the extent to which conditional variables are possessed in international markets, specifically India and the United

States. Nicholls et al., (1996) found large differences in situational factors between consumers in India and the United States. This finding demonstrates the need for all brand choice models to be context specific, further supporting the model and methodology of SNG (1991a) that this study replicates. A view supported by Valentine and Gordon (2000) who have documented the level of change surrounding consumers, again demonstrating the need for contextual influences to be incorporated in to models of brand choice.

Foxall (1993) argues that most consumer choice models fail to consider the environment in which consumers function, pointing to their “*apparent placelessness of the behaviour they describe and explain*” (Foxall, 1993, p.7). Foxall (1993) describes consumer behaviour as a function of the consequences of such behaviour in the past and that “*determinant of behaviour must, therefore, be sought in the environment rather than within the individual*” (Foxall, 1993, p.8). Foxall (1993) contends that situational factors act as reinforcers of behaviour and dependent on the level of reinforcement, the behaviour is repeated.

2.7.6 Epistemic Value

With epistemic value focusing on a choices ability to provide novelty, curiosity and/or satisfy knowledge seeking aspirations (SNG, 1991b) a majority of the relevant literature is split between the two areas of variety seeking and innovation research streams. These are now reviewed.

Variety Seeking

Simonson (1990) examined the effects of purchase quantity and timing on variety-seeking behaviour. Simonson (1990) addressed the question of understanding the differences in consumer behaviour between consumers who make multiple purchases in a product class for several consumption occasions and consumers who purchase one item at a time before each consumption occasion. Simonson (1990) found strong support for their hypothesis that consumers who make simultaneous purchases for sequential consumption are more likely to select variety than those making purchases sequentially.

Steenkamp & Baumgartner (1992) define variety seeking behaviour as “*a means of obtaining stimulation in purchase behaviour by alternating between familiar choice objects (e.g. brands, stores) for a change of pace*” (Steenkamp et al., 1992, p.435). Steenkamp et al., (1992) examined the role of optimum stimulation level in exploratory consumer behaviour. They contend that human behaviour is sometimes instigated purely by desire to attain a satisfactory level of stimulation, with people preferring intermediate levels of stimulation. It is purported by Steenkamp (1992) that some consumers engage in exploratory behaviour such as product/brand/store variety to attain a satisfactory level of stimulation. With specific reference to variety seeking behaviour Steenkamp et al., (1992, p.438) found support for their hypothesis that “*individuals with high OSLs will exhibit more variety-seeking behaviour in a product category than individuals with lower OSLs*”.

It is widely recognised in the variety seeking literature that the concept of positive effect can influence cognitive processes (Isen, 1978; Isen, 1987; Teasdale & Fogarty 1979; Raju, 1980). Kahn & Insen (1993) extended these findings to the examination of variety seeking behaviour. Kahn et al., (1993) found that a positive-affect manipulation increased variety seeking behaviour. They also found positive affect to 1) increase the tendency of subjects to categorize non-typical items as belonging to a predefined product category 2) increase credibility that a product designed to reduce negative health effects would be successful and 3) increase variety-seeking behaviour.

Menon & Kahn (1995, p.285) found empirical support for their notion that “*a consumer’s need for stimulation previously met by switching among items in a product class can also be satisfied by providing stimulation through variation in the choice context outside the targeted product category*”. Motivations for variety seeking behaviour were explored by Van Trijp, Hoyer & Inman (1996). They examined both intrinsic and extrinsic motivations for variety seeking behaviour. It is argued by Van Trijp et al., (1996, p.288) that “*by identifying consumers’ underlying motives for brand switching, we were able to differentiate true variety-seeking behaviour from extrinsically motivated brand switching*”. They found the following: 1) variety-seeking behaviour did not occur for all products to the same extent 2) on average, variety switchers have a higher intrinsic need for variety than did repeat purchasers 3) variety-seeking behaviour was more likely to occur than repeat purchasing when involvement is

lower and when smaller differences were perceived among choice alternatives 4) when consumers derived greater hedonic characteristics from a product category and had a lower strength of preference for the most-liked option variety seeking was more likely to occur.

Countering utility maximisation theory it is argued by Ratner, Kahn & Kahneman (1999, p.1) that consumers do not always seek to maximise that enjoyment from a purchase. This contention is based on “*consumers choose some less-enjoyable experiences because their favourites benefit from the comparison to these less-pleasant experiences*”.

Ratner et al., (1999) built upon the findings of Kahn, Ratner & Kahneman (1997) that found consumers are willing to sacrifice enjoyment for variety. Ratner et al., (1999) found empirical support for Kahn et al., (1997) and further found that “*memories favouring varied sequences lead individuals to consume an assortment of items, even if those choices do not result in the greatest enjoyment in real time*” (Ratner et al., 1999 p.14).

With variety-seeking behaviour being prominent in consumer behaviour research, Trivedi (1999) wanted to further explore this area through assessing the intensity of variety-seeking behaviour. Trivedi (1999) sees the intensity of variety-seeking behaviour as the likelihood of a consumer engaging in variety-seeking behaviour. It is argued by Trivedi (1999) that “*individuals with a lower intensity of behaviour (and therefore a lower consistency in maintaining their purchase pattern) would be more susceptible to externalities (such as marketing mix effects), relative to high-intensity individuals seeking a specific pattern of behaviour with greater consistency*” (Trivedi, 1999, p.38). Trivedi (1999) findings were mixed and reflect the difficulty in measuring changes in consumer behaviour as a result of promotions. However, some support was found in that customer segments who exhibited low-intensity variety-seeking behaviour sought little variety and were consistent in their purchase choices and responded strongly to promotional efforts compared to customer segments with high-intensity variety seeking behaviour.

Whilst variety-seeking behaviour has received significant research attention the majority of this has been focused at the aggregate not attribute levels (Inman, 2001).

Inman (2001) explored the possibility that consumers are more likely to seek variety on attributes that are sensory based. In fourteen of the fifteen food product categories used by Inman (2001) it was found that “*consumers tend to switch more intensively between levels of an attribute that interacts with the senses than between levels of nonsensory attributes*” (Inman, 2001, p.117). This finding strongly supports the introduction of the line extensions for brands with consumers less likely to switch brands if they can source variety from their existing brands.

Innovation

The role of consumer innovativeness is an important component of (SNG 1991a) epistemic value construct. Consumer innovativeness is important as consumer innovativeness transforms consumers actions from routinized purchasing of a static set of brands and products to dynamic behaviour (Hirschman. 1980). Steenkamp et al., (1992) explored the antecedents of consumer innovativeness. They hypothesised that consumer innovativeness is a function of values, consumer context specific dispositions, and national culture. Steenkamp et al., (1992) found support for their hypothesised antecedents of consumer innovativeness.

Optimal Stimulation

Psychological research contends that humans are motivated by the need to maintain an optimal level of arousal, stimulation, or complexity. Marketing researchers have accepted this notion concluding individuals are attracted to novel and complex stimuli (Dember & Earl, 1957; Berlyne, 1960; Berlyne, 1966; Berlyne, 1970; Fiske & Maddi, 1961, Garlington & Shimota, 1964).

It is noted by Hanna & Wagle (1988) that only a few personality traits have been related to consumer behaviour. They found consumer optimal stimulation levels to possibly be a personality trait that influences consumer behaviour.

Optimal stimulation level theory postulates that each individual seeks an optimal stimulation level (Zuckerman, 1971). “*If the level of stimulus falls below optimal, the person will seek additional environmental variety seeking to increase stimulation; when the level of stimulation is above optimum, the individual will strive to reduce it*” (Hanna & Wagle, 1988, p.7). Hanna et al., (1988, p.8) through empirical research found “*other*

things being equal, high sensation seekers will tend to expend more effort than low sensation seekers in the accomplishment of the same assigned task” and that “satisfaction derived from identical amounts of expended effort is higher for low sensation seekers than for high sensation seekers”.

These findings indicate a relationship between task pleasantness and sensation seeking. Less effort was expended by low sensation seekers and resulted in greater task satisfaction whilst more effort was expended by high sensation seekers who enjoyed lower task satisfaction.

2.8 Conclusion:

The review of the literature pertaining to brand choice has highlighted the scope of the subject matter. The literature included economics, psychology, marketing variables, consideration sets and consumer heterogeneity. Six brand choice models were examined. It was found that the SNG (1991a) theory of consumption values model incorporated many components from the other brand choice models. It was also found that little research has examined brand choice behaviour in durable goods markets. The study, SNG (1991a) chosen for this differentiated replication study has a strong empirical base comprising of many research streams. The methodology used for this study is now discussed in Chapter 3, research methodology.

Chapter 3: Research Methodology.

3.1 Introduction:

This chapter outlines the research methodology employed in this study. Firstly, research issues and hypothesis are discussed, which focus on addressing why consumers choose one brand over another. Secondly, the research design and measures are justified. Thirdly the sample selection and research procedures are explained. A description of how the data was analysed is provided. This study is then compared with the research of SNG (1991a).

3.2 Research Issues and Hypothesis Development:

The determinants of brand choice are explored through extending the study of SNG (1991a) under New Zealand conditions and uses the durable goods product category of road motorcycles. The literature review showed that the research surrounding brand choice has been dominated by approaches that have relied heavily on scanner or consumer panel data limiting the use of durable goods in brand choice research. It is noted by Urban, Hauser & Roberts (1990) that consumer durable goods have received little marketing research attention.

The literature review in Chapter 2 highlighted the strong research streams surrounding each construct incorporated into the SNG (1991a) Consumption Values Model. The literature makes mention that consumers have to make more choices between brands and products Ambler (1997). The availability of brands to consumers has been found to simplify the consumer decision-making process (Srivastava & Shaker, 1991; Krishnan et al., 1993; Lannon, 1993; McQueen et al., 1993). Therefore it is posited that a robust understanding of consumer brand choice could better assist organisations in influencing brand choice behaviour of consumers to their advantage.

This study, consistent with SNG (1991a), explores the proposition that brand choice behaviour is influenced by five consumption values, these being: functional, emotional, social, conditional and epistemic.

The objective of this study is to understand the brand choice moderators that influence consumer's choice of one brand over another in the New Zealand market for new road motorcycles. In addressing this research objective it is hypothesised that:

1. *Consumer consumption values influence brand choice behaviour within the New Zealand market for new road motorcycles.*
2. *The SNG (1991a) model can be used to predict which brand of motorcycle a consumer will purchase.*

3.3 Research Design:

The research design for this study is directly derived from SNG (1991a) who developed a theory of consumption values to explain why consumers make the choices they do. Both quantitative and qualitative methods are utilised in this study. Qualitative research is used to gain a deeper understanding of what variables are important to motorcycle owners. Quantitative research was then used to measure the magnitude of influence these variables had on road motorcycle brand choice behaviour.

Researchers use two methods to draw conclusions when conducting research. These two methods are induction and deduction. Induction involves drawing general conclusions from the results of empirical studies with existing theory not being of primary concern. Deductive reasoning however, places greater value on the importance of existing theory with hypotheses derived from existing theories and empirically tested to see if they are valid. Wallen (1996) purports the use of deduction reasoning as appropriate when determining or rejecting a theory. This study is of a deductive nature as it tests SNG (1991a) theory of consumption values model through assessing its ability to accurately discriminate between the major brands of motorcycles in the New Zealand market.

Tull & Hawkins (1990) define survey research as the systematic gathering of information from respondents in order to understand and/or predict some aspect of behaviour of the population of interest, generally in the form of a questionnaire. The research process for this study is diagrammatically illustrated below in figure 3.1.

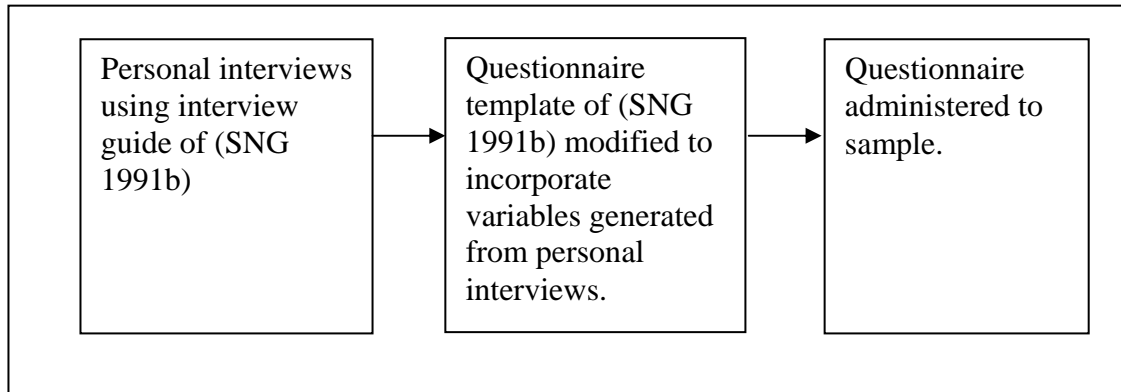


Figure 3.1 Research process

3.4 Sample:

The sampling frame for this study was owners of road motorcycles in New Zealand and was reflective of the New Zealand road motorcycle market. Road motorcycles as opposed to all motorcycles were selected as more information was available in the public domain about road motorcycles than offroad motorcycles. The sample was restricted to the top seven brands, based on 2002 New Zealand motorcycle registrations. These seven brands accounted for 82 percent of New Zealand road motorcycle registrations in 2002 (Land Transport Safety Authority, 2003).

The twelve respondents were randomly selected from riding attendees at a ‘Track Time’ ride day event held at the Pukekohe race track, Auckland. All riding attendees owned a road-registered motorcycle. These twelve respondents were personally interviewed to generate the content of the written questionnaire.

Two motorcycle clubs were used for the written questionnaire sample as they provided a concentrated source of motorcycle owners that could be easily contacted. The two motorcycle clubs had a total of 590 members. Questionnaires were also distributed to visitors to the Auckland Big Boys Toys exhibition. The Auckland ‘Big Boys Toys’ exhibition had a stand for seven motorcycle brands (BMW, Yamaha, Suzuki, Honda,

Triumph, Kawasaki and Harley Davidson), attracting motorcycle enthusiasts to the exhibition. Those visitors who were carrying a motorcycle helmet were assumed to be motorcycle owners and were approached and asked to complete the written questionnaire onsite. The written questionnaire used in this study is in Appendix B.

The sample sizes for this study consisted of twelve respondents for the personal interview research phase and 237 for the written questionnaire, of which 194 were useable. This useable sample size provided at least 20 respondents for each brand, which was required for the data analysis.

3.5 Data Collection:

Personal interviews and a written questionnaire were used in the collection of data for this study. These two data collection methods are now discussed further.

Personal Interviews

Personal interviews were used in the preliminary research phase allowing the researcher to lead informal conversations based on a standard interview guide developed by SNG (1991a). This departs from the focus group method used by SNG (1991a) and was driven by convenience and cost to the researcher. Personal interviews were also more convenient for the respondents as the interviews could be conducted when and where the respondents wanted. An interview guide was used to ensure consistency across all twelve personal interviews. The interview guide was based on the five consumption values of SNG (1991a) and a copy is located in Appendix A.

As recommended by Yin (1994) a tape recorder was used throughout all personal interviews to ensure the empirical data was registered accurately and also allowed the research to go back and review the data. Respondents were informed of the use of a tape recorder and were required to sign a consent form. Note taking was also used during the interviews with each interview ending once all questions on the interview guide were finished. Personal interviews were conducted during October 2002.

Written Questionnaire

A self-completion written questionnaire was used during the second phase of the research process. The written questionnaire was used to measure the brand choice moderators that influence consumer's choice of one motorcycle over another. This questionnaire was mailed to the sample. The questionnaire was designed using the template provided by SNG (1991a) and the variables generated from the personal interviews. As with the personal interviews the questionnaire was structured around the five consumption values of SNG (1991a). It has been demonstrated by SNG (1991a) that their model is amendable to varied data collection methods including mail questionnaires. The written questionnaire was mailed to respondents during November 2002 and were accompanied with a participant information sheet and instruction of how to complete the questionnaire.

3.6 Scale Development:

In keeping with SNG (1991a) the questionnaire was scaled on a binary basis. For each question there were only two available answers, these being yes or no, agree or disagree and most likely or least likely. SNG (1991a) argue that the use of a binary scale approximates the way people often think. It also forces respondents to take a position in answering each question, is simple and therefore encourages respondent cooperation and allows the researcher to create ratio scaled variables.

The use of a binary scale generated data suitable for both the factor analysis and discriminant analysis used in this study.

3.7 Data Analysis:

3.7.1 Personal Interviews:

Miles & Huberman (1994) states that qualitative data analysis focuses on data in the form of words. Consistent with SNG (1991a) transcripts of the personal interviews were content analysed. This involved the researcher conducting a keyword search where the frequency and saliency of transcripts were measured. Keywords with similar

meanings were grouped together, ensuring parsimony. Keywords with a frequency of two or more were retained for each consumption value. Section 4.1 provides summaries of the keywords generated for each consumption value that were incorporated into the generic template developed by SNG (1991b).

3.7.2 Written Questionnaire Data Analysis:

Data was analysed through using stepwise discriminant analysis . SNG (1991b, p.112) state “*discriminant analysis is ideally suited to our theory’s operationalisation because analysis begins with known groups such as brand A /brand B user*”. In applying the theory, the objective is to classify these known groups on the basis of values during choice, the independent or discriminant variables”. This is supported by Hair et al., (1998) who contend that discriminant analysis maximises between-group variance and minimises within group variance resulting in mutually exclusive and collectively exhaustive groups. This method of data analysis therefore allows this study to assess the SNG (1991a) model’s ability to correctly classify respondents into their brand groups.

The stepwise discriminant analysis employed in this study used factor scores as inputs that were generated for each consumption value through factor analysis. Factor analysis was used as a data reduction technique, minimising the number of variables for each consumption value. A factor analysis was performed for each of the five consumption values. The original study of SNG (1991a) retained factors that generated eigenvalues equal to or greater than 1.0, no other methods were used in deciding what factors should be retained. This study retained factors using eigenvalues, scree plot analysis and a review of the percentage of cumulative variance. In using more than one criteria it is expected that the factor solution would best describe the underlying data for each consumption value.

The retained factors were used as independent variables into a stepwise discriminant analysis model. Stepwise discriminant analysis was used to allow for the entering of independent variables one at a time, which allowed variables that were not useful in discriminating between the different brand purchasers to be excluded.

3.8 Research Validity:

3.8.1 Construct Validity:

Construct validity concerns the use of correct operational measures for the concepts being studied. Construct validity was achieved through each consumption value being defined by the results generated from the personal interviews. Keywords generated were only used for the consumption value for which they were generated from.

3.8.2 External validity

External validity concerns establishing a domain to which a study's findings can be generalised. The purpose of this study is not to make generalisations beyond the product category and geographic location of this study and the SNG (1991a) study.

3.8.3 Reliability:

Reliability focuses on being able to repeat the study with the same results (Yin, 1994). Through full disclosure of the methods and instruments used, including the focused interview guide and the written questionnaire in this study, a researcher would be able to replicate this study.

This study differs in two major ways from that of SNG (1991a). Firstly it examines brand choice behaviour in the motorcycle market. SNG (1991a) research has predominately focused on fast or medium moving consumer goods or political parties. Applying the SNG (1991a) model to a different product category (motorcycles) tests the model's utility. Secondly, more than one method was used to retain factors. This methodological difference assisted in developing a factor solution that best described the underlying data yet still allowed the researcher to reduce the data.

3.9 Internal Validity:

Internal validity focuses on establishing “*causal relationships where certain conditions are shown to lead to other conditions, as distinguished from spurious relationships*” (Yin, 1994, p.33). Internal validity was achieved through the preliminary research (personal interviews) that generated factors that influence brand choice and the use of standardised written questionnaire.

3.10 Conclusion:

The methodology employed in this study is strongly based on that used by SNG (1991a). The minor differences in methodology do not change the fundamentals of the model that this research is based on. The differences assist in extending the model past fast or medium moving consumer goods or political parties based research.

Chapter 4: Results and Findings.

4.1 Introduction

This section details the results generated through the implementation of the methodology for this study. This section consists of three components. Firstly, results relating to twelve focused interviews are discussed, focusing on the keywords for each consumption value. Secondly, results pertaining to the written questionnaire are examined and the factor analyses conducted for each of the five consumption values are discussed, this includes the number of factors retained in each factor solution and factor labelling. Thirdly, the discriminant analysis results are explained, culminating in the acceptance of four of the five hypotheses for this study.

4.2 Focused Interviews:

Twelve focused interviews were conducted to generate the content of the written questionnaire. The twelve respondents were randomly selected from riding attendees at a 'Track Time' ride day event held at the Pukekohe race track, Auckland. All riding attendees owned a road-registered motorcycle. Respondents for the focused interviews were interviewed one-on-one in a spare room at the race track. All interviews were tape-recorded to allow the researcher to transcribe and review the interviews. An interview guide was used to ensure consistency across all twelve personal interviews. The interview guide was based on the guideline provided by SNG (1991a). Responses to the questions for each consumption value were content analysed using keyword analysis. This method is consistent with that used by SNG (1991a). Keywords with similar meanings were grouped together, ensuring parsimony. Keywords that had a frequency of two or more were retained for each consumption value. The focused interview responses were reduced to those detailed in the following five tables.

4.2.1 Functional Value:

- *What are some of the benefits and problems that you associate with your brand of motorcycle?*
- *What are some of the benefits and problems that you think a nonuser of your brand associates with your brand or motorcycle?*

<i>Variable</i>	<i>Frequency</i>	<i>Variable</i>	<i>Frequency</i>
Generates superior performance	6	Is highly styled	3
Is highly specified	5	Is overpriced	3
Is easy to source spare parts for	3	Has good resale value	2
Is easy to source accessories for	3	Is easy to maintain	2
Has Dealers that provide good service	3	Handles well	2
Provides rider comfort	3	Looks good	2
Is well engineered	3	Has a sufficient warranty period	2
Is reliable	3		

Table 4.1 Functional Value Interview Results

4.2.2 Social Value

- *Which groups of people do you believe are both most and least likely to own your brand of motorcycle?*
- *Which groups of people do you think a nonuser believes are both most and least likely to own your brand of motorcycle?*

<i>Variable</i>	<i>Frequency</i>	<i>Variable</i>	<i>Frequency</i>
Image conscious	6	Commuters	3
Performance seekers	6	Large persons	3
Race riders	6	Financially secure	3
Price conscious riders	5	Professionals	3
Discerning motorcyclists	5	Style seekers	3
Quality conscious	5	Educated	3
Born again bikers	4	Women	2
Older riders	4	Adventure riders	2
Younger riders	4		

Table 4.2 Social Value Interview Results

4.2.3 Emotional Value

- *What feelings are aroused by your decision to purchase your brand of motorcycle?*
- *What feelings do you think are aroused by a nonusers' decision not to purchase your brand of motorcycle?*

<i>Variable</i>	<i>Frequency</i>	<i>Variable</i>	<i>Frequency</i>
Brand loyal	6	Freedom	3
Macho	5	Nostalgic	3
Excitement	5	Rebel	3
Attention	4	Youthful	3
Individualism	4	Thrill	3
Pleasure	4	Satisfaction	2
Adrenaline	4		

Table 4.3 Emotional Value Interview Results

4.2.4 Epistemic Value

- *What triggered your decision to purchase your brand of motorcycle?*
- *What do you think triggers nonusers' decision not to purchase your brand of motorcycle?*

<i>Variable</i>	<i>Frequency</i>	<i>Variable</i>	<i>Frequency</i>
For a change of brand	6	Test reports	5
Liked the brand	6	Just to see what it was like	3
New technical specifications	6	Motorcycle was unique	3
My brand was on sale	5	Advertising was appealing	2
Liked the image my brand conveyed	5		

Table 4.4 Epistemic Value Interview Results

4.2.5 Conditional Value

- *Are there any circumstances or situations that would cause you to stop owning your brand of motorcycle?*
- *Are there any circumstances or situations that you think would cause a nonuser to start owning your brand of motorcycle?*

Variable	Frequency	Variable	Frequency
Price of my brand increased	6	Increased functionality of another brand	5
My riding ability improved	4	Increase in personal income	5
The quality of roads in my surrounding area improved	4	Decline in resale value of my brand	4
Received poor service from my Dealer	3	Difficulty in sourcing spare parts	4
Quality of my brand decreased	4	Increase in cost of maintenance	6

Table 4.5 Conditional Value Interview Results

From the keyword analysis it was found that Functional and Social Value constructs generated the most variables with 15 and 17 respectively. Emotional value generated 13 variables. Conditional value generated 10 variables and Epistemic value generated 9 variables. The uneven distribution of variables across the five consumption values is not unexpected as the five consumption values of the model should make differential contributions to specific choice situations. *“In any specific choice situation, some values contribute more than others”* (SNG, 1991b, p.10).

The keywords for each consumption value were then used to form the content of the written questionnaire, which is now discussed.

4.3 Written Questionnaire

The variables generated through the twelve focused interviews were incorporated into the written questionnaire. The written questionnaire consisted of the following key questions (each question had a list of variables associated with it):

- *Please indicate whether you agree or disagree that the following benefits or problems are associated with your brand of motorcycle.*
- *Not everybody who owns a motorcycle owns your brand of motorcycle. Which of the following groups of people do you believe are most likely to own your brand of motorcycle?*
- *Certain conditions motivate people to behave differently than their regular behaviour or habit. Do you believe that the following conditions might cause you to switch from your brand of motorcycle to an alternative brand of motorcycle?*
- *People sometime own a particular brand of motorcycle for personal and emotional reasons. Please indicate whether you personally experience any of the following feelings associated with your decision to own your brand of motorcycle.*
- *Some people own a particular motorcycle because they are curious about it, or are simply bored with whatever brand they have previously owned. Did you purchase your brand of motorcycle for any of the following reasons?*

Appendix B contains a copy of the written questionnaire, which was mailed with a covering letter, participant information sheet and a postage-included reply envelope. The written questionnaire was mailed to the members of two Auckland based motorcycle clubs. The two motorcycle clubs had a total of 590 members. Questionnaires were also distributed to visitors to the Auckland Big Boys Toys exhibition. The Auckland 'Big Boys Toys' exhibition had a stand for seven motorcycle brands (BMW, Yamaha, Suzuki, Honda, Triumph, Kawasaki and Harley Davidson), attracting motorcycle enthusiasts to the exhibition. Those visitors who were carrying a motorcycle helmet were approached and asked to complete the written questionnaire onsite. 32 questionnaires were completed from the Big Boys Toys show. Table 4.6 details response numbers for the written questionnaire.

Questionnaires mailed	590	
Motorcyclists approached at Big Boys Toys show	32	
Total Sample	622	
Total responses	237	38.0%
Responses by brand		
BMW	25	10.5%
BSA	2	0.8%
Ducati	2	0.8%
Harley Davidson	24	10.0%
Homebuilt	1	0.4%
Honda	62	26.0%
Kawasaki	24	10.0%
Moto Guzzi	4	1.7%
Norton	1	0.4%
Suzuki	39	16.5%
Triumph	25	10.5%
Vespa	1	0.4%
Yamaha	27	11.4%

Table 4.6 Written Questionnaire Responses

Questionnaire responses were classified into brand categories. Respondents detailed what brand of motorcycle they owned. Where respondents owned multiple motorcycle brands they were requested to complete the questionnaire for the brand of motorcycle they ride most often. A total response rate of 38% was achieved.

Thirty-two questionnaires were received by the researcher that were not fully completed e.g. not all questions answered, these were excluded from the data analysis. Only observations with complete data were used for the data analysis as recommended by Hair et al., (1998). As discriminant analysis formed a major component of how the data was analysed, brands with fewer than 20 responses were excluded. This is consistent with the sample size guidelines provided by Hair et al., (1998, p.258)) that state "*as a practical guideline, each group should have at least 20 observations*".

The final composition of the data set used for both factor and discriminant analysis is detailed in table 4.7. The final seven brands used in the data analysis represent 82 percent of all motorcycles registered in 2002 (Land Transport Safety Authority, 2003).

The final data set of 194 useable responses equates to a response rate of 31 percent of the original sample size of 622.

Brand	Responses used for data analysis
BMW	20
Harley Davidson	22
Honda	57
Kawasaki	21
Suzuki	32
Triumph	22
Yamaha	20
Total	194

Table 4.7 Final samples sizes by brand

4.4 Factor Analysis

A factor analysis was completed for each of the five consumption values. Factor analysis was used to reduce the number of variables for each consumption value and to simplify the second component of the data analysis of stepwise discriminant analysis. Variables that were similar were combined into one factor where this did not cause a change in the nature and character of the original variables SNG (1991b). To assist with the interpretation of each of the five factor analyses, Varimax rotation was employed.

Of the 21 factors retained across the five consumption values three did not exceed the 1.0 eigenvalue criteria used by SNG (1991a). These three factor scores were slightly below 1.0 and are listed below:

1. Conditional value - Riding ability 0.966
2. Emotional value - Attention seeking 0.995
3. Social value - Adventure riders 0.958

The reasoning for retaining these variables are discussed in the relevant factor analysis discussion for the relevant consumption value.

The percentage of variance for each factor solution for each consumption value are:

Consumption Value Factors	% of Variance
Social	65.96%
Functional	61.64%
Emotional	60.86%
Epistemic	58.48%
Conditional	57.07%

Table 4.8 Percentage of Variance

With reference to an acceptable level of percentage of variance criterion in the social sciences Hair et al., (1998, p.104) state “*it is not uncommon to consider a solution that accounts for 60% of the total variance (and in some instances even less) as satisfactory*”.

The five factor solutions are now discussed, including the reasoning for retaining the number of components retained and the reasoning behind each factor label. Two criteria offered by Hair et al., (1998) were used as a guideline in formulating factor labels for this study, these guidelines being “*variables with higher loadings are considered more important and have greater influence on the name or label selected to represent a factor*” and “*the label is intuitively developed by the researcher based on its appropriateness for representing the underlying dimensions of a particular factor*” (Hair et al., 1998, p.114).

Functional Value – Factor Analysis

My motorcycle.....	Factors			
	Design	Resale value and looks	Aftersales service	Value for money
Superior performance	.664	.066	.193	-.270
Easy to source spare parts	.715	.007	.336	.160
Rider comfort	.718	.190	.172	.285
Easy to maintain	.647	-.217	.326	.054
Well engineered	.904	.100	.057	.078
Handles well	.851	.028	.016	.077
Highly specified	.574	.339	.141	-.206
Reliable	.873	-.030	.176	.130
Good resale value	-.026	.752	.028	.028
Looks good	.140	.601	-.241	-.009
Highly styled	.100	.551	.325	-.319
Easy to source accessories	.249	-.020	.715	-.006
Dealers provide good service	.245	.031	.745	.095
Sufficient warranty period	-.084	.497	.293	.587
Overpriced	.222	-.167	.003	.657
Eigenvalue	5.325	1.689	1.187	1.046
% variance explained	31.518%	11.470%	11.049%	7.607%

Table 4.9 Functional value factor analysis results

The scree plot for functional value was examined and flattened out after four components.

Functional Value Factor Labels

- *Design* – The variables combining to form the factor of design all reflect aspects of how a motorcycle is designed. The highest load of 0.904 was for the variable ‘well engineered’, a key component of design.
- *Resale value and looks* – A single label did not adequately describe this factor. This factor is comprised of two aesthetic related variables and the variable of ‘good resale value’. Good resale value has the highest loading so could not be discarded.
- *After sales service* – Both ‘dealers provide good service’ and ‘easy to source accessories for’ are key components to ongoing motorcycle maintenance.

Motorcycles are most commonly serviced by dealers at least once a year and motorcyclists consistently purchase accessories, as evidenced by the amount of floor space dedicated to motorcycle accessories in most motorcycle dealerships. As both these variables occur after the initial sale of the motorcycle after sales service is a salient label.

- *Value for money*- ‘Overpriced’ and ‘sufficient-warranty period’ variables both related to financial concerns. ‘Overpriced’ relates to the retail price of a motorcycle and had the highest loading. ‘Sufficient warranty period’ refers to the length of time the customer is covered for any problems arising with the motorcycle.

Epistemic Value – Factor Analysis

Reasons for purchasing brand of motorcycle.....	Factors			
	Product Information	Special Deal	Brand appeal	Curiosity
Advertising was appealing	.542	.390	.012	.093
New technical specifications	.794	-.148	-.070	-.200
Test reports	.719	.009	.081	.105
Motorcycle was unique	.144	-.629	.014	.342
My brand was on sale	.119	.798	.001	.132
Liked the brand	-.021	.247	.713	.021
Liked the image my brand conveyed	.156	-.284	.563	.257
Just to see what it was like	.103	.189	-.588	.497
For a change of brand	-.055	-.069	.087	.813
Eigenvalue	1.559	1.418	1.209	1.077
% variance explained	16.831%	15.425%	13.236%	12.986%

Table 4.10 Epistemic value factor analysis results

The scree plot for Epistemic value was examined and flattened out after four components.

Epistemic Value Factor Labels

- *Product information* – ‘New technical specifications’ and ‘test reports’ both relate to product information. The third variable of ‘advertising was appealing’ did not influence the factor label due to its low loading.
- *Special deal* – The factor of ‘special deal’ is reflective of the variables of ‘my brand was on sale’ referring to financial savings and ‘motorcycle was unique’ referring to a special purchase due to the rarity of the purchase.
- *Brand appeal* – Two of the three factors relate to the brand and therefore influenced the factor label. The variable of ‘just to see what it was like’ did not feature in the factor label’.

- *Curiosity* – The factor label of curiosity was selected as it reflects the only variable of ‘for a change of brand’ which loaded against this factor.

Conditional Value – Factor Analysis

Conditions that might cause a respondent to switch brands...	Factors		
	Brand quality & servicing	Financial	Riding ability
Poor service from my dealer	.591	.046	-.316
Quality of my brand decreased	.805	-.016	-.022
Difficulty in sourcing spare parts	.785	.389	.078
Increase in cost of maintenance	.623	.498	.040
Price of my brand increased	.082	.511	-.380
Increased functionality of another brand	-.169	-.649	.027
Increase in personal income	.056	-.701	.284
Decline in resale value of my brand	.218	.608	-.049
Riding ability improved	-.016	-.236	.794
Quality of roads improved	-.080	-.049	.802
Eigenvalue	3.170	1.571	0.966
% variance explained	20.955%	20.020%	16.096%

Table 4.11 Conditional value factor analysis results

Only including components with eigenvalues equal to or greater than 1.0 generated two components for Conditional value. However, examining the scree plot for Conditional value showed that it did not flatten out until after three components. Three components were therefore retained.

Conditional Value Factor Labels

- *Brand quality and servicing* - All four variables of 'poor service from my dealer', 'quality of my brand decreased', 'difficulty in sourcing spare parts', 'increased in cost of maintenance' relate to either brand quality or servicing aspects.

- *Financial* - Three of the four variables for this factor are financial in nature and therefore strongly influenced the factor label.
- *Riding ability* - Road quality and riding ability are closely related, with riding ability influencing the tolerance for road quality. These variables are both accounted for with the factor label of riding ability.

Emotional Value – Factor Analysis

Feelings associated with the decision to purchase your brand	Component			
	Hedonistic	Macho Rebel	Thrill	Attention Seeking
Freedom	.838	.127	.034	.153
Excitement	.601	-.015	.314	.203
Pleasure	.845	.037	.105	.069
Satisfied	.815	.129	.063	.109
Macho	-.028	.718	.235	.292
Loyal	.077	.702	-.097	-.073
Rebel	.019	.713	.079	.235
Adrenaline	.092	.144	.791	.081
Thrill	.449	-.216	.696	-.057
Youthful	.011	.286	.757	.015
Attention	-.005	.165	.077	.721
Individualism	.353	-.101	-.040	.750
Unique group	.412	.241	.008	.526
Eigenvalues	3.968	1.976	1.582	0.995
% of variance explained	21.325%	14.384%	13.730%	11.424%

Table 4.12 Emotional value factor analysis results

Including components with eigenvalues equal to or greater than 1.0 resulted in three components being generated for Emotional value. However, examining the scree plot for Emotional value showed that it did not flatten out until after four components. Four components were therefore retained.

Emotional Value Factor Labels

- *Hedonistic* - This factor consists of four variables (freedom, excitement, pleasure and satisfied) all of which are well described using the factor label of hedonistic.
- *Macho Rebel* - Of the three variables loading against this factor, the two with highest loadings were macho and rebel, both of which are somewhat related.

- *Thrill* - Despite the variable of 'thrill' having the lowest loading against this factor, the researcher believes it can summarise the other two variables of 'adrenaline' and 'youthful'.
- *Attention seeking* - The variables of 'attention' and 'individualism' were considered to be reasonably similar and had a strong influence on the factor label.

Social Value – Factor Analysis

Groups most and least likely to own your brand of motorcycle	Factors					
	Rider type	Price conscious commuters	Image & style	Discerning quality seekers	Physical appearance & profession	Adventure riders
Race riders	.848	.241	.052	.035	-.076	.096
Older riders	-.713	.071	.368	.273	.133	.155
Performance seekers	.706	-.003	-.194	.215	.160	.143
Younger riders	.651	.548	.063	-.133	-.190	-.004
Commuters	.174	.775	-.098	-.027	-.188	.143
Price conscious	.024	.723	-.216	-.178	.131	.068
Women	.014	.639	.024	-.031	-.114	-.185
Image conscious	.015	-.309	.685	.030	.193	-.144
Style seekers	-.122	-.083	.816	.066	.007	.115
Discerning motorcyclists	.051	-.154	-.104	.832	-.060	.047
Financially secure	-.163	-.259	.412	.656	.099	-.064
Quality conscious	.119	.071	-.253	.539	.350	.296
Educated	-.005	.016	.363	.519	.245	-.018
Large persons	-.164	-.073	.116	-.036	.813	.074
Professionals	.066	-.165	.140	.300	.716	-.072
Adventure riders	.079	-.020	.031	.059	.011	.931
Eigenvalues	3.957	2.294	1.575	1.326	1.102	0.958
% of variance explained	14.260%	12.590%	11.819%	11.515%	9.199%	6.579%

Table 4.13 Social value factor analysis results

Including components with eigenvalues equal to or greater than 1.0 resulted in five components being generated for Social value. Examining the scree plot for Social value showed that it did not flatten out until after six components. Six components were therefore retained.

Social Value Factor Labels

- *Rider type* - All variables loading against this factor relate to the type of rider, including both demographic and psychographic considerations.

- *Price Conscious Commuters* - The two variables with the highest factor loadings were 'commuters' and 'price conscious'. The third variable of 'women' loading against this factor had a lower loading of 0.639.
- *Image and style* - The two variables loading against this factor of 'image conscious' and 'style seekers' are well deserved with the factor label of image and style.
- *Discerning Quality Seekers* - This factor label best describes the underlying variables, which all have either a discerning and quality connotation.
- *Physical Appearance and Profession* - The two variables loading against this factor could not be reflected in the use of a single word label so both are included in the factor label.
- *Adventure Riders* - As only one variable loaded against this factor it was used for the factor label.

The factors generated were then used in a stepwise discriminant analysis. This analysis is now examined in section 4.5.

4.5 Discriminant Analysis

Consistent with SNG (1991a) the factors generated through the factor analysis conducted for each of the five consumption values were saved as factor scores and then used in the stepwise discriminant analysis. Table 4.14 details the group statistics for each of the 21 factors.

Data	BMW	Harley	Honda	Kawasaki	Suzuki	Triumph	Yamaha	Total	
Valid N (listwise)	20	22	57	21	32	22	20	194	
Social - Adventure riders	Mean	1.12	-0.42	-0.11	-0.03	-0.06	-0.46	0.51	0.02
	Std. Deviation	1.09	0.70	0.85	0.85	0.96	0.30	1.41	1.01
Functional - Aftersales service	Mean	0.12	0.74	-0.08	-0.06	0.30	-1.17	-0.04	-0.02
	Std. Deviation	0.60	0.98	0.94	0.59	0.79	1.26	1.07	1.03
Emotional - Attention Seeking	Mean	0.02	0.85	-0.09	0.01	-0.08	-0.59	0.32	0.02
	Std. Deviation	0.78	0.55	1.12	0.47	1.10	0.99	1.00	1.01
Epistemic - Brand appeal	Mean	-0.22	0.60	0.17	-0.11	-0.17	0.46	-0.39	0.07
	Std. Deviation	0.84	0.65	1.02	0.84	1.13	0.39	1.09	0.96
Conditional - Brand quality & servicing	Mean	-0.76	0.81	-0.24	-0.05	-0.09	0.73	0.17	0.02
	Std. Deviation	0.66	0.92	1.05	0.79	0.83	0.94	1.10	1.03
Epistemic - Curiosity	Mean	-0.10	1.26	-0.03	-0.18	-0.12	-0.01	-0.46	0.04
	Std. Deviation	0.77	1.11	0.99	0.74	0.80	0.67	0.67	0.97
Functional - Design	Mean	0.34	-1.79	0.44	0.49	0.07	-0.93	0.31	-0.05
	Std. Deviation	0.33	1.18	0.36	0.44	0.73	1.27	0.37	1.03
Social - Discerning quality seekers	Mean	0.56	-0.71	0.29	-0.24	-0.52	0.49	-0.13	-0.01
	Std. Deviation	0.77	0.74	0.81	0.75	1.31	0.41	1.09	0.99
Conditional - Financial	Mean	0.58	0.75	0.04	-0.87	-0.60	0.63	0.08	0.04
	Std. Deviation	0.55	0.58	0.99	0.94	1.08	0.38	0.83	1.00
Emotional - Hedonistic	Mean	0.32	-0.13	0.10	0.10	-0.47	0.36	0.14	0.04
	Std. Deviation	0.38	0.56	0.76	1.23	1.50	0.23	0.27	0.90
Social - Image & style	Mean	-0.35	1.14	-0.11	-0.16	-0.19	0.49	-0.23	0.04
	Std. Deviation	0.81	0.29	0.93	1.13	1.02	0.71	1.02	0.99
Emotional - Macho Rebel	Mean	-0.87	1.17	-0.07	-0.43	-0.22	1.11	-0.35	0.03
	Std. Deviation	0.50	0.75	0.83	0.87	0.61	1.13	0.83	1.02
Social - Physical appearance and profession	Mean	0.16	0.36	0.15	-0.04	-0.22	-1.09	0.54	-0.01
	Std. Deviation	0.91	0.55	0.89	0.98	1.02	0.90	0.89	0.99
Social - Price conscious commuters	Mean	-0.46	-0.57	-0.04	0.14	0.80	-0.61	0.51	0.01
	Std. Deviation	0.91	0.30	1.01	0.98	0.99	0.24	1.09	1.00
Epistemic - Product information	Mean	0.20	-0.45	0.40	0.01	-0.01	-0.52	-0.14	0.01
	Std. Deviation	1.03	0.55	1.15	0.78	1.00	0.67	0.95	0.99
Functional - Resale value & looks	Mean	0.23	0.48	0.12	-0.78	-0.67	0.35	0.22	-0.02
	Std. Deviation	0.58	0.46	0.90	0.95	1.56	0.59	0.74	1.03
Social - Rider type	Mean	-0.31	-0.45	0.12	0.05	0.33	-0.46	0.52	0.01
	Std. Deviation	0.55	0.19	1.08	1.20	1.36	0.25	0.96	1.01
Conditional - Riding ability	Mean	-0.42	-0.31	-0.08	0.01	0.28	0.39	0.08	0.00
	Std. Deviation	0.28	0.23	0.98	0.89	1.19	1.10	1.16	0.96
Epistemic - Special deal	Mean	-0.01	-0.73	0.14	0.14	0.64	-0.67	-0.15	-0.01
	Std. Deviation	0.85	0.25	0.92	0.93	1.15	0.36	1.18	0.98
Emotional - Thrill	Mean	-0.07	-1.01	0.17	0.04	0.05	0.25	0.42	0.01
	Std. Deviation	0.95	1.18	0.91	0.86	0.98	0.94	0.83	1.01
Functional - Value for money	Mean	0.48	-0.56	0.07	-0.20	0.25	0.12	-0.03	0.04
	Std. Deviation	0.95	0.96	0.96	1.53	0.83	0.55	0.81	0.99

Table 4.14 Group Statistics

The total sample size for this analysis is 194. Reviewing the mean scores for each brand it was found that Harley and Triumph were consistently different to Honda, Kawasaki, Suzuki, Yamaha and to a lesser extent BMW for the consumption values of:

- Epistemic - Brand appeal
- Conditional - Brand quality and servicing
- Functional - Design
- Conditional – Financial

- Social - Image and style
- Emotional - Macho rebel
- Social - Price conscious commuters
- Epistemic - Product information
- Functional - Resale value and looks
- Social - Rider type
- Epistemic - Special deal

Honda, Kawasaki, Suzuki and Yamaha are all Japanese manufactured brands. Country of origin was not raised as a purchase consideration during the 12 focused interviews and therefore was not included in the written questionnaire.

In examining the pooled within-groups matrices it is noted that there exists weak correlations. The strongest correlation of 0.37 exists between Functional-Design and Social-Discerning quality seekers. The absence of strong correlations reduces the possibility of there being several alternative subsets of variables that could perform equally well. Appendix C provides a complete data table of the pooled within group matrices.

Using stepwise discriminant analysis the original set of 21 consumption values were reduced to eight values. These eight values are:

1. Functional-Design
2. Functional-Aftersales service
3. Social-Price conscious commuters
4. Social-Discerning quality seekers
5. Social-Physical appearance and profession
6. Social-Adventure riders
7. Conditional-Financial
8. Emotional-Macho rebel

Of the five consumption values that comprise the SNG (1991a) Theory of Consumption Values model, one does not feature in the final discriminant model, this being Epistemic Value. The exclusion of one of the five consumption values from the model is not unexpected and reflects the parsimony of the SNG (1991a) model through only including consumption values relevant to the situation being studied.

The retention of the eight variables generated the following results:

Wilks' Lambda	Chi Squared	Degrees Freedom	Significance
0.112	406.914	48	0.000

Table 4.15 Wilks' Lambda

The removal of any of the eight variables caused an increase in the Wilks's Lambda, increasing the amount of unexplained variance between brands, therefore all eight variables were retained. The significance level generated by the discriminant model was less than 0.0005, rejecting the hypothesis of equality between variables. These results therefore assist in meeting the objectives of discriminant analysis of "*maximising between group variance and minimizing within-group variance to create mutually exclusive and collectively exhaustive groups*" (SNG, 1991b, p.112).

Unlike the original study of SNG (1991a) this study is examining the differences between seven brands not two. This made it necessary to focus the data analysis on canonical variables. This is supported by Hair et al., (1998) who recommend that when there are more than two groups, canonical variables become the focus of the analysis.

4.6 Classification Coefficients

Table 4.16 details the classification coefficients for each brand and variable.

	BMW	Harley	Honda	Kawasaki	Suzuki	Triumph	Yamaha
Functional - Design	-.564	-3.769	.904	1.191	.754	-1.561	.380
Functional - Aftersales service	-.072	.632	-.130	.053	.690	-1.433	-.122
Social - Price conscious commuters	-.732	-.634	-.048	.158	1.209	-1.090	.731
Social - Discerning quality seekers	.809	.292	.106	-.621	-1.083	1.445	-.451
Social - Physical appearance and profession	.420	.909	-.003	-.161	-.497	-.932	.701
Social - Adventure riders	1.344	-.210	-.209	-.071	-.206	-.320	.568
Conditional - Financial	.521	.628	.081	-1.016	-.441	.593	.167
Emotional - Macho Rebel	-1.460	.551	.149	-.280	-.200	1.563	-.514

Table 4.16 Classification Coefficients Table

Each of the eight discriminant variables are now discussed.

Functional-Design

This construct differentiates between Japanese and non-Japanese brands. All Japanese brands have positive classification coefficients whereas the non-Japanese brands all have negative classification coefficients. Functional-design is based on the variables of superior performance, easy to source spare parts, rider comfort, easy to maintain, well engineered, handles well, highly specified and reliable. These results suggest that the purchasers of Japanese motorcycles value the design components associated with the brand more than non-Japanese purchasers. Of the Japanese brands, Kawasaki generated the highest coefficient for functional-design with 1.191, followed by Honda 0.904, Suzuki 0.754 and Yamaha 0.380.

Functional-Aftersales service

Comprising of easy to source accessories and dealers provided good service resulted in Triumph having the largest coefficient with -1.433. Suzuki and Harley had the next largest coefficient with 0.690 and 0.632 respectively. This may be explained through

evidence suggesting Harley purchasers enjoy accessorising their motorcycles. In reference to Harley Davidson riders Schouten & McAlexander (1995, p.54) state *“bikers adorn their machines with massive quantities of chrome and leather, and they tend to adorn themselves in a similar fashion, leather clothing, heavy boots, and gauntlets (all black) lending a road-warrior-like appearance that often is made even more pronounced with the addition of knives, wallet chains, conches, chrome studs, and other such hardware”*.

Social-Price Conscious Commuters

Price conscious commuters comprising of price conscious, commuters and women generated coefficients consistent with the pricing strategy of each motorcycle brand. BMW, Harley, Honda and Triumph all have premium pricing strategies, with Honda being the least premium and therefore generating the smaller coefficient of the four premium priced brands. The remaining three brands of Kawasaki, Suzuki and Yamaha all generated positive correlations, with Suzuki generating the highest coefficient of 1.209 reflecting their pricing strategy of lowest cost.

Social-Discerning Quality Seekers

Discerning quality seekers, comprising of discerning motorcyclists, financially secure, and educated generated strong positive correlations for BMW (0.809) and Triumph (1.445). BMW and Triumph brands are both well known for quality and features prominently on their respective websites. These coefficient scores are in contrast to Suzuki's coefficient of -1.083, highlighting a lack of association of Suzuki with quality. Again there exists a split between Japanese and non-Japanese brands. BMW, Harley and Triumph all generated coefficients equal to or greater than 0.292, with the Japanese brands (Honda, Suzuki, Yamaha, Kawasaki) generating coefficients of 0.106 or smaller. The quality association with each brand also reflects the pricing strategy for each brand. BMW, Harley and Triumph are all premium priced.

Social-Physical Appearance and Profession

Physical appearance and profession construct comprising of large persons and professionals generated the strongest positive coefficient for Harley. This is consistent with the 'biker' image portrayed by Harley and the design of Harley's that can accommodate larger persons. The strongest negative coefficient was generated for

Triumph. Triumph's model line-up mainly consists of sport bikes and classic type bikes. Both of these design types are suited to smaller persons and could possibly explain Triumph's coefficient of -0.932. Honda, Kawasaki and Suzuki all produce multiple sport type bikes. These bikes are designed for speed and performance and not rider comfort so usually provide a somewhat cramped riding position and could possibly explain their coefficients of -0.003 to -0.497. What cannot be explained is Yamaha's coefficient of 0.701. Yamaha produces multiple sport type bikes similar to those produced by other Japanese brands yet has a strong positive correlation.

Social-Adventure Riders

Adventure riders is comprised from only one variable, that being adventure riders. BMW generated the largest coefficient for this construct of 1.344. This can be explained through BMW having the largest range of 'adventure' type motorcycles.

Conditional-Financial

Conditional-financial is derived from the variables of price of my brand increased, increased functionality of another brand, increase in personal income, decline in resale value of my brand. Harley and BMW generated the largest positive coefficients of 0.628 and 0.521 respectively. This is consistent with these two brands being the two most premium priced of the brands included in this study and reflect the level of financial risk associated with owning either of these two brands. Kawasaki's coefficient of -1.016 cannot be explained.

Emotional-Macho Rebel

Macho-rebel consisting of macho, rebel and legal resulted in Triumph generating the largest coefficient of 1.563, with Harley on 0.551. Both these brands generated negative coefficients for functional-design indicating that the image and emotions generated from owning either a Harley or Triumph are very important to their owners.

Table 4.17 below summarises which values are the most discriminating for each brand.

Brand	Most Discriminating Value	Coefficient
BMW	Macho rebel	-1.460
Harley	Design	-3.769
Honda	Design	0.904
Kawasaki	Design	1.191
Suzuki	Price conscious commuters	1.209
Triumph	Macho rebel	1.563
Yamaha	Price conscious commuters	0.731

Table 4.17 Most discriminating consumption value by brand

4.7 Pairwise Group Comparisons

In examining Pairwise Group (Brand) Comparisons for the motorcycle brands included in this study, the 'F' statistics details which brands are most similar and which are most dissimilar. Harley consistently has high 'F' statistics indicating that Harley is dissimilar to the other six brands. Harley is most different to Honda and is most similar to Triumph. BMW is most different from Harley and then Triumph. Honda is most different from Harley and then Triumph. Honda is most similar to the other three Japanese brands and BMW. Kawasaki is most different to Harley and most similar to the three other Japanese brands and BMW. Suzuki is most different to Harley and most similar to the other three Japanese brands. Triumph is most different to Suzuki, reflecting differences in pricing and quality. Triumph is most similar to the Japanese brands and BMW. Yamaha is most similar to the Japanese brands and BMW, however, among the Japanese brands Suzuki is the most dissimilar. Yamaha is most different from Harley and Triumph and most similar to the three other Japanese brands. Table 4.18 details the 'F' statistics.

Brand		BMW	Harley	Honda	Kawasaki	Suzuki	Triumph	Yamaha
BMW	F		18.331	7.289	7.933	12.472	16.792	4.261
	Sig.		.000	.000	.000	.000	.000	.000
Harley	F	18.331		23.413	21.200	21.902	13.065	16.387
	Sig.	.000		.000	.000	.000	.000	.000
Honda	F	7.289	23.413		3.026	7.299	16.830	3.002
	Sig.	.000	.000		.003	.000	.000	.003
Kawasaki	F	7.933	21.200	3.026		2.259	18.317	2.873
	Sig.	.000	.000	.003		.025	.000	.005
Suzuki	F	12.472	21.902	7.299	2.259		23.983	3.515
	Sig.	.000	.000	.000	.025		.000	.001
Triumph	F	16.792	13.065	16.830	18.317	23.983		17.545
	Sig.	.000	.000	.000	.000	.000		.000
Yamaha	F	4.261	16.387	3.002	2.873	3.515	17.545	
	Sig.	.000	.000	.003	.005	.001	.000	

Table 4.18 Pairwise Group Comparisons

4.8 Classifications Results

The overall success of this stepwise discriminant model for the New Zealand motorcycle market in correctly classifying cases into one of seven groups is 60.5%. Random assignment of cases to groups would generate a correct classification rate of 14.29%. Table 4.19 details the classification percentages for the discriminant model.

		Predicted Group Membership							Total
		BMW	Harley	Honda	Kawasaki	Suzuki	Triumph	Yamaha	
Count	BMW	11	0	5	0	0	0	4	20
	Harley	0	17	5	0	0	0	0	22
	Honda	4	0	43	4	4	0	2	57
	Kawasaki	0	0	9	7	4	0	1	21
	Suzuki	1	0	9	2	18	0	2	32
	Triumph	0	0	7	0	0	15	0	22
	Yamaha	3	0	8	1	2	0	7	21
Percent	BMW	55.0%	0.0%	25.0%	0.0%	0.0%	0.0%	20.0%	100.0%
	Harley	0.0%	77.3%	22.7%	0.0%	0.0%	0.0%	0.0%	100.0%
	Honda	7.0%	0.0%	75.4%	7.0%	7.0%	0.0%	3.5%	100.0%
	Kawasaki	0.0%	0.0%	42.9%	33.3%	19.0%	0.0%	4.8%	100.0%
	Suzuki	3.1%	0.0%	28.1%	6.3%	56.3%	0.0%	6.3%	100.0%
	Triumph	0.0%	0.0%	31.8%	0.0%	0.0%	68.2%	0.0%	100.0%
	Yamaha	14.3%	0.0%	38.1%	4.8%	9.5%	0.0%	33.3%	100.0%

Table 4.19 Discriminant Classification Results

Harley Davidson has the highest correct classification percentage with 77.3%, this is consistent with Harley Davidson being the most dissimilar to the other six brands.

Honda has a correct classification percentage of 75.4%. This may reflect their large sample size of 57. Honda's similarity to the other Japanese manufactured brands (Kawasaki, Suzuki and Yamaha) is reflected in the classification of between 28.1% and 42.9% of the other Japanese brands as Honda.

Comparing the 'F' statistics generated through pairwise group comparisons of the Japanese brands, Suzuki is the most dissimilar to the other Japanese brands and may explain why Suzuki's correct classification percentage is higher than Yamaha and Kawasaki. Kawasaki and Yamaha have the lowest correct classification percentage of 33.3%, still higher than that generated through random assignment of 14.29%.

The results generated throughout the stepwise discriminant analysis consistently highlighted differences between groups based on country of origin. Classifying the motorcycle brands used in this replication study into two groups of Japanese and non-Japanese brands based on country of origin generated a correct classification percentage of 86.1%. The most discriminating variable between Japanese and non-Japanese brands is Function Value - Design with a coefficient of 0.950. Table 4.20 details results for country of origin discriminant analysis.

	Coefficient	Means	
		Non-Japanese	Japanese
Functional - Design	.950	0.3367	-0.8310
Social - Rider type	.311	0.2196	-0.4074
Social - Price conscious commuters	.505	0.2807	-0.5508
Social - Discerning quality seekers	-.526	-0.0619	0.0998
Social - Adventure riders	-.310	0.0089	0.0493
Epistemic - Special deal	.277	0.2172	-0.4838

Table 4.20 Standardized Canonical Discriminant Function Coefficients

Japanese brands' positive coefficient for Functional-Design highlights their preference for brands that have strong performance, engineering, handling and specifications.

4.9 Conclusion:

The support found for each of the two research hypotheses for this study are detailed in table 4.21.

Hypotheses	Supported / Unsupported
Consumer consumption values influence brand choice behaviour within the New Zealand market for new road motorcycles.	Supported
The SNG (1991a) model can be used to predict which brand of motorcycle a consumer will purchase.	Supported

Table 4.21 Research Hypotheses Support

These findings are now discussed further in section 5.0 Discussion and Conclusions.

Chapter 5: Discussion and Conclusions

5.1 Introduction

This replication study has addressed the research question of what are the brand choice moderators that influence consumers' choice of one brand over another. In addressing this research question the influence of five consumption values on brand choice behaviour within the New Zealand market for new road motorcycles were examined.

Support was found for both research hypotheses. Firstly, it was found that consumption values did influence brand choice behaviour within the New Zealand market for new road motorcycles. Secondly, it was found that the SNG (1991a) model could be used to predict which brand of motorcycle a consumer would purchase. These two findings are now discussed further.

5.2 Consumption Values Influence on Brand Choice Behaviour

Eight consumption value constructs were identified as having an influence on respondent's brand choice behaviour in the New Zealand market for new road motorcycles. These being functional-design, functional-aftersales service, social-price conscious commuters, social-discerning quality seekers, social-physical appearance and profession, social-adventure riders, conditional-financial and emotional-macho rebel. These consumption values are specific to the market and product category in which this study was conducted, as they are context specific.

No support was found for consumption values based on SNG (1991a) epistemic value construct. This construct is based on a choices ability to provide novelty, curiosity and/or satisfy knowledge seeking aspirations (SNG (1991a)). This finding is supported by Van Trijp et al., (1996) who's research into variety-seeking behaviour found variety-seeking behaviour was lower for products that had a high level of involvement and where larger differences are perceived among choice alternatives.

5.3 SNG (1991a) Theory of Consumption Values Model

This replication study was based on the SNG (1991a) theory of consumption values model, which has been used to predict brand choice behaviour. The success of this model in correctly predicting brand choice behaviour in the New Zealand motorcycle market was 60.5%. This exceeds the success rate of 14.29% generated from random assignment of cases to the correct brand.

Country of origin was found to be a significant discriminator between respondents. Classifying the motorcycle brand used in this replication study into two groups of Japanese and non-Japanese brands, the SNG (1991a) model correctly classified 86.1% of respondents. This result was not anticipated, as the personal interviews that were conducted did not generate any variables associated with country of origin.

5.4 Limitations of Study:

The results generated for this study are derived from the information provided by the sample used. This sample was confined to the Auckland region and may not be representative of all motorcycle owners. Respondents were sourced from two motorcycle clubs. What is not known is how representative of motorcycle owners are motorcycle owners who belong to a motorcycle club.

The personal interviews conducted in this study did not generate country of origin as a salient variable for inclusion in the written questionnaire. The use of focus groups instead of personal interviews may have generated questionnaire variables that resulted in a discriminant model with greater predictive validity. SNG (1991a) stipulate that written questionnaire items can be generated from focus groups, personal interviews and telephone interviews.

As noted by SNG (1991a) the model cannot be used in choices that are group or dyadic based. It is not known what level, if any, group or dyadic decision-making is involved in the decision to purchase a new road motorcycle.

5.5 Future Research:

In assessing the gaps in the knowledge surrounding consumer brand choice behaviour before and after this study there still exists a need for future research into this area. It was noted by Hsu et al., (2003) that differences existed in the purchasing behaviour of consumers between the product categories of durable and non-durable goods. This study identified a lack of research into brand choice behaviour amongst durable goods. The results from this study contribute to the understanding of brand choice behaviour in the durable goods category, however, further research in this area would assist in increasing the validity of the contributions made by this study.

Section 5.4 identified the lack of suitability of the theory on consumption values being used to predict and understand brand choice behaviour in choice situations involving groups. Future research could address this through a focus on the moderators of brand choice behaviour in groups.

5.6 Overall Conclusion:

The replication study established consumption values as a moderator of brand choice behaviour. This finding has practical importance as the literature shows that brand choice leads to greater brand equity and that brand equity leads to greater monetary values of brands, culminating in the enhancement of organisational assets.

Marketers can use the SNG (1991a) theory of consumption values model to better understand and influence consumer brand choice behaviour in their favour, ultimately leading to enhanced brand equity and financial brand value.

Future research could examine brand behaviour in group-based decision making environments.

SNG (1991a) created and tested their theory of consumption values model. This study provides support for the use of this model in durable goods categories.

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Appendix A – Interview Guide

Functional Value

- What are some of the benefits and problems that you associate with your brand of motorcycle?
- What are some of the benefits and problems that you think a nonuser of your brand associates with your brand or motorcycle?

Social Value

- Which groups of people do you believe are both most and least likely to own your brand of motorcycle?
- Which groups of people do you think a nonuser believes are both most and least likely to own your brand of motorcycle?

Emotional Value

- What feelings are aroused by your decision to purchase your brand of motorcycle?
- What feelings do you think are aroused by a nonusers' decision not to purchase your brand of motorcycle?

Epistemic Value

- What triggered your decision to purchase your brand of motorcycle?
- What do you think triggers nonusers' decision not to purchase your brand of motorcycle?

Conditional Value

- Are there any circumstances or situations that would cause you to stop owning your brand of motorcycle?
- Are there any circumstances or situations that your think would cause a nonuser to start owning your brand of motorcycle?

Appendix B – Written Questionnaire

Motorcycle Brand Survey

This is a university study about road motorcycle brands. The results of this study will be used for academic research and your responses will be kept strictly confidential.

We are interested in your own personal feelings and opinions. There are no right or wrong answers.

On each page you will find several different kinds of statements about road motorcycle brands. All you have to do is put a ✓ in the spaces that reflect your own personal feelings and opinions.

Please Note:

1. Check only one answer per statement.
2. When you are finished, please check to be sure you have not omitted any answers.

THANK YOU VERY MUCH

2. Are you 18 years of age or older?

Yes _____

No _____ (*if no please stop here*)

3. Do you own a road motorcycle?

Yes _____

No _____ (*if no please stop here*)

4. What brand and model of motorcycle do you own (*if you own more than one motorcycle please list the one motorcycle you ride most frequently*)

Brand _____ Model _____

5. How often do you ride your motorcycle?

Never _____

Occasionally _____

About once a month _____

Nearly every week _____

6. Does your motorcycle play an important role in your personal life?

Yes _____

No _____

For the following questions please answer them with reference to the motorcycle brand you have specified in question number three.

7. Please indicate whether you agree or disagree that the following benefits or problems are associated with **your** brand of motorcycle.

My brand of motorcycle.....	Agree	Disagree
1. Generates superior performance	_____	_____
2. Is easy to source spare parts for	_____	_____
3. Is easy to source accessories for	_____	_____
4. Has Dealers that provide good service	_____	_____
5. Provides rider comfort	_____	_____
6. Has good resale value	_____	_____
7. Is easy to maintain	_____	_____
8. Is well engineered	_____	_____
9. Handles well	_____	_____
10. Is highly specified	_____	_____
11. Is reliable	_____	_____
12. Looks good	_____	_____
13. Has a sufficient warranty period	_____	_____
14. Is highly styled	_____	_____
15. Is overpriced	_____	_____

8. Not everybody who owns a motorcycle owns your brand of motorcycle. Which of the following groups of people do you believe are most likely to own your brand of motorcycle?

	Most Likely	Least Likely
1. Women	_____	_____
2. Adventure riders	_____	_____
3. Price conscious riders	_____	_____
4. Born again bikers	_____	_____
5. Commuters	_____	_____
6. Discerning motorcyclists	_____	_____
7. Large persons	_____	_____
8. Financially secure	_____	_____
9. Older riders	_____	_____
10. Image conscious	_____	_____
11. Performance seekers	_____	_____
12. Professionals	_____	_____
13. Quality conscious	_____	_____
14. Race riders	_____	_____
15. Style seekers	_____	_____
16. Younger riders	_____	_____
17. Educated	_____	_____

9. Certain conditions motivate people to behave differently than their regular behaviour or habit. Do you believe that the following conditions might cause you to switch from your brand of motorcycle to an alternative brand of motorcycle?

	Yes	No
1. Price of my brand increased	_____	_____
2. My riding ability improved	_____	_____
3. The quality of roads in my surrounding area improved	_____	_____
4. Received poor service from my Dealer	_____	_____
5. Quality of my brand decreased	_____	_____
6. Increased functionality of another brand	_____	_____
7. Increase in personal income	_____	_____
8. Decline in resale value of my brand	_____	_____
9. Difficulty in sourcing spare parts	_____	_____
10. Increase in cost of maintenance	_____	_____

10. People sometimes own a particular brand of motorcycle for personal and emotional reasons. Please indicate whether you personally experience any of the following feelings associated with your decision to own your brand of motorcycle.

	Yes	No
1. I feel a sense of freedom when I ride my motorcycle	_____	_____
2. I feel a sense of excitement when I ride my motorcycle	_____	_____
3. I feel macho when I ride my motorcycle	_____	_____
4. I feel an adrenaline rush when I ride my motorcycle	_____	_____
5. I get lots of attention when I ride my motorcycle	_____	_____
6. Riding my motorcycle allows me to express my individualism	_____	_____
7. When I ride my motorcycle I am being loyal to my brand of motorcycle	_____	_____
8. I feel a sense of pleasure when I ride my motorcycle	_____	_____
9. I feel like I am part of a unique group when I ride my motorcycle	_____	_____
10. I feel satisfied when I ride my motorcycle	_____	_____
11. I feel like a rebel when I ride my motorcycle	_____	_____
12. Riding my motorcycle gives me a thrill	_____	_____
13. I feel youthful when I ride my motorcycle	_____	_____
14. I feel nostalgic when I ride my motorcycle	_____	_____

11. Some people own a particular motorcycle because they are curious about it, or simply bored with whatever brand they have previously owned. Did you purchase your brand of motorcycle for any of the following reasons?

	Yes	No
1. Just to see what it was like	_____	_____
2. For a change of brand	_____	_____
3. Advertising was appealing	_____	_____
4. Motorcycle was unique	_____	_____
5. Liked the brand	_____	_____
6. New technical specifications	_____	_____
7. My brand was on sale	_____	_____
8. Liked the image my brand conveyed	_____	_____
9. Test reports	_____	_____

Thank you very much!

Please mail your completed questionnaire in the postage-included envelope.

