CONSUMER BRAND EQUITY:

A MODEL FOR THE MEASUREMENT, ANALYSIS AND EVALUATION OF CONSUMER PERCEIVED VALUE

by

TEMILADE MUJIDAT LABAKE ABIMBOLA

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ABSTRACT

The topic of my research is consumer brand equity (CBE). My thesis is that the success or otherwise of a brand is better viewed from the consumers' perspective. I specifically focus on consumers as a unique group of stakeholders whose involvement with brands is crucial to the overall success of branding strategy.

To this end, this research examines the constellation of ideas on brand equity that have hitherto been offered by various scholars. Through a systematic integration of the concepts and practices identified by these scholars (concepts and practices such as: competitiveness, consumer searching, consumer behaviour, brand image, brand relevance, consumer perceived value, etc.), this research identifies CBE as a construct that is shaped, directed and made valuable by the beliefs, attitude and the subjective preferences of consumers. This is done by examining the criteria on the basis of which the consumers evaluate brands and make brand purchase decisions.

Understanding the criteria by which consumers evaluate brands is crucial for several reasons. First, as the basis upon which consumers select brands changes with consumption norms and technology, understanding the consumer choice process will help in formulating branding strategy. Secondly, an understanding of these criteria will help in formulating a creative and innovative agenda for 'new brand' propositions. Thirdly, it will also influence firms' ability to stimulate and mould the plasticity of demand for existing brands.

In examining these three issues, this thesis presents a comprehensive account of CBE. This is because the first issue raised in the preceding paragraph deals with the content of CBE. The second issue addresses the problem of how to develop a reliable and valid measuring instrument for CBE. The third issue examines the structural and statistical relationships between the factors of CBE and the consequences of CBE on consumer perceived value (CPV). Using LISREL-SIMPLIS 8.30, the study finds direct and significant influential links between *consumer brand equity* and *consumer value perception*.

In loving memory of
My mother
...To whom I owe it all

And with thanks to
My father and Kolapo
Who strengthen and sustained me throughout

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RESEARCH INTRODUCTION

1.0. INTRODUCTION

This project examines consumer brand equity as a means of evaluating attitude towards brand and its consequences on consumer brand value perception. The theme of this report is that the success or otherwise of a brand is better construed from the perspectives of consumers whose interests, beliefs, attitude and behaviour towards brands determine the success of any brand strategy. The consumer's evaluation of a brand, therefore, is of immense importance in determining their brand value perception and ultimately, the competitiveness of the brand owner.

The question of how to determine the success of branding strategy has been the subject of numerous research studies by those interested in issues such as value accounting (e.g. Baxter, 1991), performance evaluation, and customer profitability (e.g. Reichheld, 1996). It is also the theme of various debates on what should constitute the measurable components of marketing intangible assets accruing from branding activities (see, for instance, Barwise, 1993). Our research develops a model of consumer brand equity (CBE).

Marketing strategy is concerned with the process of developing and managing assets that arise from the commingling of the firm with entities in its external environment (Lynch, 1994; Srivastava, Shervani and Fahey, 1998; Sudharshan, 1995). Creating value for the external entities with which a firm has relationships is important to the process of seeking competitiveness and profitability for the firm itself. The nature, process of value creation and its evaluation are important to these relationships. In turn, the success of the relationship depends upon the firm's capability and competence to create value — value as perceived by the market and other external entities with which the firm relates. The external entities are those stakeholders whose interests, gains and participation facilitate the market exchange process.

Branding is one of the marketing practices that enhance value creation for the firm. Brand represents one of the core sources of value for a firm's stakeholders, irrespective of their different approaches to evaluating such value. Branding is a competitive strategy. It is also a key marketing practice that emphasises the connectedness of the firm with its customer. This thesis presents a study that particularly focuses on consumers as stakeholders whose relationship with brands represents a unique source of equity for firms. Although consumers represent the stakeholders of interest in this study, a firm's ability to nurture and create brand value for the consumer is a primary source of economic value for other stakeholders. Consumers are probably the key external stakeholders for whom a firm needs to create value in order to be competitive.

Through branding, firms are able to create, nurture and generate market-based brand assets. Market-based brand assets are attitudinal and perceptual factors that consumers attach to a particular brand (see, for instance, Keller, 1998). By creating market-based assets which the consumer regards as better than those provided by other brands in the market place, the consumer could regard such a brand as worthy of patronage compared to its competitors and substitutes. Firms that successfully build such a brand are better able to create and nurture *consumer brand equity*. Consumer brand equity in turn influences consumer perception of value. Therefore, a brand that is able to generate consistent consumer perceived value represents an important indicator of the firm's ability to effectively link its internal and external environment. This invariably influences its company's ability to manage, nurture strong brand and generate wealth for the organisation and create value for its shareholders.

Given the above, a key issue of importance to brand owners in fostering consumer brand equity is sensing, understanding and knowing what influences consumer brand value perception. This is a crucial question that the brand owner must continuously elicit from the consumer. It is also important because competitive activities and technological advancement are constantly changing consumption norms. These changes in consumption norms erode existing value propositions that a brand may have for the customer. Hence, the long-term success of a brand depends on its ability to continually provide relevant value to the consumer. But, while key perceptual

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factors such as subjective quality may be stable over time (Sheth and Sissolo, 2001), the things which influence and reinforce consumer perception of such factors change constantly.

A firm's ability to accurately gauge consumer perception of its brand's worth represents an important basis for renewing its meaning and essence to the consumer.

Market-based assets have been examined in relation to concepts such as *Brand Equity* (see, for instance, Aaker, 1993, 1996; Biel, 1993; Keller, 1993, 1998; Park and Srinivasan 1994; Shocker, Srivastava and Rueckert, 1994) and *Customer Satisfaction* (cf. Anderson and Sullivan, 1993; Anderson, Fornell and Lehman, 1994). Findings from these research areas led to other avenues of research such as brand accounting and valuation, and the creation of value for shareholders (see, for instance,, Doyle, 2000; Kerin and Sethurama, 1998; Srivastava, Shevani and Fahey, 1998). These research streams contribute to the broader consideration of sources of market-based asset. However, there is a paucity of empirical work that specifically addresses the changing nature of consumer brand equity and its effect on consumer value perception. It is this particular need to address the changing nature of CBE and its effect on value perception which serves as impetus for this research.

1.1. CONSUMER BRAND EQUITY: AN OVERVIEW

Normative and empirically supported propositions from various studies by scholars on *brand equity* suggest that branding policy is one of the most important competitive strategies for creating imitable market-perceived value (Kapferer, 2001; Ries and Ries, 2000; Rumelt, 1997, p.135; Schultz, 2000). An inherent determinant of consumers' judgement of a brand's worth is their willingness to continue buying a brand at a particular rate, as long as that brand fulfils their value expectations. This is because a positive perception influences consumer purchase decision-making. Moreover, a higher propensity to purchase provides steady sources of patronage for a brand. This consumer patronage is crucial to the firm. This is both in terms of creating financial equity for stockholders and in terms of appropriation of economic gains for the brand owner. Therefore, one can argue that consumer value perception of worth

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represents a key basis for determining the 'true' economic value of such a brand.

Consumer brand equity influences long-term profitability and the appropriation of competitive gain. This is particularly so in economies characterised with shortened life spans for technology, exponential innovative activities (Grant, 1991; Hendry, 1997) and rapid change in consumption norms (Solomon, Bamossy and Askegaard, 2000). Given these, the nature and role of consumer brand equity becomes even more important to a firm's profitability and performance. Scholars such as Aaker (1996), Aaker and Biel (1993), Ambler (2000), Keller (1993, 1998), and Park and Srinivasan (1994), have all argued for a holistic view of measuring the equity of a brand.

Barwise (1993a) argued that different measures of brand performance must be capable of systematically distinguishing between different measurements of value (particularly those that arise out of other activities within the firm and in conjunction with branding). Others such as Schultz (2000) also highlight the need for measures of brand performance to distinguish between economic value, perceptual value and financial value. However, the distinction between perceptual and economic (objective) value seems blurred in relation to consumer assessment of brands. Consumer evaluation of the economic value as separate from perceptual (subjective) value inherent in a brand has become a purely academic exercise. One can attribute the blurring of subjective and objective considerations in the making of brand purchases to the changing nature of consumption activity.

This is particularly so in many of the leading Western Economies where the level of consumption activity has evolved from that of basic subsistence level to that based on social, hedonistic and egoistic consumption.

Levy (1999) argued that the consumer has advanced from buying to satisfy subsistence needs, to purchasing based on social and hedonistic purposes. Therefore, their buying decisions tend to be based on personal and social preference, with decreasing consideration of functional reasons. Consequently, consumers are more interested in abstract and elaborate symbolic consumption. This does not mean that consumers no longer consider concrete issues in purchase decision-making. Rather,

the point is that such factors no longer form the only basis for consideration. As a result, brand with its elaborate symbolism becomes an important consideration in choice and decision- making.

One could infer from the above that the reality of consumption activities, particularly in a developed economy, reflects a greater consideration of subjective factors, with decreasing consideration of functional issues. An implication of arguments such as the above is that the success of branding as a competitive strategy increasingly requires a more subjective measure of consumer value perception. An understanding of the influences on consumer value perception entails knowing the key sources of internal influences on the consumer. This is particularly important as the individual 'self' becomes more relevant than mass marketing, as the basis for consumer value evaluation.

The point then is that in a market where personal preference and social reasons represent a greater basis for brand purchase, successful brands will be those that are able to build and nurture relevant consumer attitudinal and perceptual factors. However, as consumption norms and consumer brand expectations change rapidly, firms need to constantly update their brand's proposition as consumer preferences evolve, in order to retain and attract consumer patronage.

For instance, the "dress-down-revolution" between 1997 to 2001 had represented a fresh approach to conventional office uniform and boosted the image of strong brands such as Gap. However, with the dot.com boom and its subsequent bust, dressing down no longer seems attractive. The Gap brand suddenly looks ordinary. The company had to lay off 1,000 staff in July 2001 and announced net losses of £127million in November of the same year. Clearly, consumer attitudes and preference for brands change with fashion. The point, then, is this: brands must be able to up-date their value propositions as market forces, norms and competitive activities erode their competitive advantage. To achieve this, brand managers need to 'learn and unlearn' the changing nature of consumer attitude, preferences and value expectations. "Learning" is paramount to influence consumer preferences, and "unlearning" is necessary for the introduction of innovative developments. This learning unlearning

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process is important for consumer brand value creation as environmental changes make current value a threat to consumer brand equity creation, and, invariably, future survival and competitiveness (Hamel and Prahalad, 1996, p.53).

1.1.1. Branding and Consumer Decision Making

It is a common observation that the business environment is characterised by rapid change. In actual fact, rapid change is probably the most constant factor that underlies firms' competitiveness (see, for instance, Penrose, 1959; Schumpeter, 1934). However, one can identify the end of the last century as a particularly fast period of change in the business era. Indeed this view of inherent change is shared by many — not only in marketing (e.g. Baker, 1989; Day, 1992; Irwin and Langham, 1966), but also in strategy (e.g. Grant, 1996; Hamel and Prahalad, 1996; Quinn, 1980).

One effect of the changes in the general environment is that, because consumers are well informed and sophisticated in their choices, they know how to tailor specific purchases to their individual needs, wants, aspirations and expectations. The complexities and discontinuities that are thus created enhance the *strategic* role of the *brand* within the firm. Changes within the broader environment also propel the role of brand and corporate reputation (*The Economist*, 1988; Grant, 1991; Kay, 1999a) to the forefront, thereby connecting organisational strategic purpose to the realities of the external environment. Amidst these changes, brands represent an oasis of stability for consumers as well as the brand owner.

1.2. RESEARCH JUSTIFICATION

In a global economy, brand is considerably more important than ever before. Two factors warrant this assertion. First, the additional retail outlets offered by the Internet enable consumers to have direct contact with the producers as well as alternative suppliers. This considerably reduces — if not totally eliminates — the search cost for the consumer. This is noticeably moving the *market* towards a near perfect competition in which information is equally available to the consumer. Secondly, as technological advances in manufacturing diffuse through many industries, quality has

become a basic element—rather than an added value in brand proposition. Consequently, consumers' buying decisions are increasingly based upon their subjective preferences for a particular brand rather than functional factors. This is particularly so when there are marginal differentiations in the intrinsic composition of brands.

Based on the above, one can justify the need for this research on two counts. The first has to do with the growing economic significance of consumer brand value, and the second justification is based on the effects of globalisation on branding. I will consider these two justifications in turn.

The growing economic importance of brand value (i.e., the competitive necessity for branding) cannot be overemphasised in the contemporary market where the lead-time within which competitive advantage can be gained for new products (and new innovations) is very short.

Branding represents a strong competitive policy that offers a means of prolonging accumulated gains in the face of competitive onslaught in the market place. Hence, there is increasing recognition of the crucial role of branding in sustainable competitive advantage. Such advantage typically stems from the accumulation of intangible assets as it reflects the stock market's appreciation of brand information and its influence on share values and corporate financial stand (see, for instance, Aaker and Jacobson, 1994; Kerin and Sethurama, 1998).

The increasing role of brand in a competitive economy is further buttressed by recent research in the UK which looked back at the preceding fifteen years of stock market valuation (Haigh, 1996). The study concluded that in comparison to the situation in the 1980's, the value of corporate stock generated by brands has risen quite steadily on the corporate assets account. In 1980, about 80% of acquisition prices were attributed to tangible assets and the rest (20%) to brand intangible assets. By 1995, the picture had dramatically changed so that intangibles accounted for 70% of acquisition price while tangible assets represented only 30%. The same picture is emerging in the USA. For instance, the market-to-book ratio for *Fortune* 500 firms averages over 4,

implying that over 75% of the value of these companies lies in their brands and other marketing-based intangibles (Piercy, 1986; Wilson, 1986). Simply put, marketing assets such as brands, marketing knowledge, customer, retail channel relations, as well as strategic alliances, create success for brand owners.

It should be noted that brand is not a 'stand alone' source of intangible assets. As such, one may not be able to completely separate its contribution (Barwise, Higson, Likierman and Marsh, 1990) from the contribution of other factors such as corporate history. Nonetheless, the brand does hold a considerable sway over other sources of intangible assets, and it gives direction to the firm's business objectives. For instance, other sources of intangibles such as patent, copyright and design, may only be valuable as long as there is a coherent effort to create and nurture them as a brand. This is particularly true because such assets are becoming easier to copy. With the increasing technological advancement of many firms, branding represents a more cohesive means of appropriating gains from those intellectual properties which would otherwise languish as *patent* or *trademark* at the patent registry offices.

Brand also provides an integrative framework for other sources of external value creation such as channel relations, stockholder analyst and strategic alliance. Intel's branding of its microprocessor in 1992 provides corroboration for the role of branding in creating competitive advantage. Prior to branding its microprocessor, Intel's capitalised market value was $8.4 US billion (Couzens, 1994). By December 1998, the market value of Intel was $1962.2 billion US dollars. Not all this value can be credited to the increase in brand value alone since similar value increase is accredited to other NASDAQ listed companies in the wake of the high value of technology stocks. However, Intel stands out as the best performance stock on NASDAQ with a 409% increase between 1991 and 1998. While Intel has a record increase of 2,314% in its stock value, its major competitors such as Texas Instruments, National Semiconductor and AMD recorded 1,335%, 245% and 202% respectively. There is no doubt that the Intel branding programme influenced its growth.

A successful and strong brand is an end result of a consistent, appropriate and effective corporate commitment and organisational investment. Hence, creating and

appropriating sustainable competitive gain through branding is even more challenging than before. Understanding the process by which consumers evaluate brands will inform and increase managers' understanding and knowledge of strategic brand management.

As we mentioned earlier, there are two types of justification for this research. So far, I have been discussing the justification that is based on the growing economic importance of consumer brand value. It is now time to consider the second justification, namely, that of globalisation.

Globalisation and the convergence of numerous product sectors (as evidenced by information and computer technology (ICT), telecommunications, health and beauty, finance and retailing and services in general) also underscores the importance of building a strong brand that can transfer across product and market sectors. Meanwhile, the forces of globalisation have also splintered the old reliable mass market. This is because consumers can easily buy brands that express their self-perception from any part of the world. Globalisation then becomes a conversation, an ongoing dialogue between companies and consumers (Frank, 2001). This state of reality represents another impetus for this study.

1.3.   CONTEXT, SCOPE AND DOMAIN OF RESEARCH

The decision to adopt a consumer centric approach to brand equity research is of critical importance to this study. This perspective was adopted early in this investigation for two reasons. Firstly, the prevailing market environment is that consumer perceptions of brand are 'every bit as important as reality'. As aptly observed by many scholars (see, for instance, Bradley, 2001; Mittal and Sheth, 2001), it matters little whether so-called objective measures (e.g., intrinsic quality) indicate specific and necessary characteristics of a brand, if customers perceive something else to be the case. To the consumer, their perception of a brand represents their reality of such a brand and the basis upon which purchase decisions are made. While consumer perceptions can be inaccurate (i.e., in comparison to objective reality), they tend to influence their attitude and behaviour. So, it is important for a brand equity study to

be concerned with consumers' perceptions and feelings about a brand and how they influence the evaluation of that brand.

Secondly, research findings in the published literature on brand equity (see, for instance, Barwise 1993; Carpenter, Glazer and Nakamoto, 1997; Guilding and Pike, 1991; Keller, 1993) reinforce the need for investigating the link between firms' ability to create consumer value and its impact on the equity of such a brand. The literature on branding (e.g. Aaker, 1991; Arnold, 1992; Keller, 1993; 1998; Kapferer, 1997; Murphy, 1990, 1991; Riezebos, 1994) also confirms the need for the approach described above.

Consumer brand value analysis, therefore, is a further development of shareholder value analysis. This is because it examines how (and which) values are important in order to attract and keep consumers. Brand's ability to positively influence consumers' repeat purchase represents an important source of future economic value for the brand owner. As in the case of the Intel example cited earlier, this in turn facilitates the building and enhancing of shareholder value.

1.4. KNOWLEDGE GAP AND RESEARCH CONTRIBUTION

Over the past decade, there has been a growing body of research on the concept of brand equity (e.g. Aaker, 1991, 1996; de Chernatony and MacDonald, 1992; Keller, 1993, 1998; Park and Srivastava, 1994). An examination of this literature was undertaken and a focused analysis of these works revealed a gap in our understanding of the consequences of Consumer Brand Equity (CBE) on customer perception of brand values.

The paucity of research in this area cannot be said to arise from the lack of understanding (or the lack of awareness) of the importance of brand equity to firms' performance. Several studies have highlighted the increasing importance of non-financial measures of firms' performance (Day and Fahey, 1988; Gale, 1994; Kaplan and Norton, 1992, 1993). However, it seems that previous studies of marketing concepts (such as customer satisfaction, brand loyalty) did not examine the

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consequences of these concepts on consumer value creation. Traditional marketing activities focus on success brought about by branding activities, but they do not provide an explicit link between product/market results (such as consumer brand equity) and its implication for *consumer value perception*. Most importantly, consumers who are satisfied with a brand still leave to find another brand. Equally, consumer loyalty to a brand has become transitory in nature.

The weaknesses of consumer satisfaction and brand loyalty measures represent a significant reason for focusing on consumer brand equity and its consequences on value creation. The above discussion points to the need for a major research investigation of the brand equity concept, particularly as marketing activities directed at stakeholders such as customers and channels are no longer simple functional operations. They are strategic policies increasingly being formulated at the corporate level, and they are directed at cultivating and enhancing market-based assets (Hunt and Morgan, 1995).

In this study, the success of branding as competitive policy (including its impact on the firm's value creation process) is examined in the context of consumer brand equity. This perspective provides a view on the extensive implications of consumer perceptions on brand equity. As marketing's importance within the organisation increases, branding also becomes a marketing practice whose impact is increasingly recognised at the *board level*. Outside the confinement of a functional unit (see, for instance, Day, 1997), branding is now recognised as an important wealth creator for firms (Murphy and Hart, 1999).

Also, by looking at the relationship between consumer brand equity and consumer perceived value, a significant link is forged between consumer behaviour and marketing strategy. Consumer brand equity, covered broadly as a measure for evaluating competitive policy, enables the incorporation of the dynamic role of branding activities in moulding and stimulating the context and nature of demand. Although our research agenda stemmed from the gap in knowledge outlined above, this research does not merely fill a gap; it also opens up a new research direction by proposing an innovative paradigm that can be extended to other areas of marketing.

Furthermore, its explanations, findings and inferential ramifications reach beyond the fast moving consumer goods sector (fmcg) upon which the empirical research is focused.

1.5. RESEARCH OBJECTIVES

In line with the foregoing, the objectives of this research can be identified as follows:

Objective One: This is that of articulating and presenting a conceptual representation of the importance of consumer brand equity.

Objective Two: To define the domain of *consumer brand equity* and to specify the conceptual parameters of the concept.

Objective Three: To develop a valid and reliable measure of *consumer brand equity*

Objective Four: To examine the potential structural relationships between the dimensions of *consumer brand equity* and the ability of the identified 'causal' structure to predict *consumer brand value perception*.

1.6. CONCEPTUAL, ANALYTICAL AND STRUCTURAL MODELS

Models come with a variety of orientations and structures. Philosophers of science distinguish models by their different levels of abstraction. For instance, Abimbola (2000) categorises them by distinguishing between those that are specifically built to explain reality (these types of models postulate entities and processes as true representations of reality), and others that explain by assuming entities and processes that have no reality independent of the models.

The first type of models are called *theoretical* models, while the second type of models are called *idealisation*. Idealisations may simplify, formalise, or even distort empirical reality to *facilitate explanation*. An example of an idealised model is the classical economic model in which everything that stimulates customer demand is reduced to inconsequential issues with only the price and product function regarded as the prime factors for consumer consideration. Price and product function are regarded

as 'objective' economic variables that determine and influence the nature of demand and supply (cf. Rumelt, 1997, p.131; Watkins, 1988). A theoretical model, on the other hand, advances a theory about the structure of a particular facet of reality. Scholars such as Aaker, (1991,1996); Keller, (1993); Riezebos, (1994) have all advanced theoretical models of brand, brand added value and brand equity, by examining the combined effect of various attitudinal factors on brand preference formation.

But theoretical models are not just explanatory aids (although some specific ones may be). This is because they are sometimes endowed with *reality*. (For instance, Einstein's theory of relativity, Penrose's theory of the growth of the firm (Penrose, 1959, 1995) and Hunt's theory of comparative advantage, (Hunt, 1995; 2000).

This thesis presents a model of consumer brand equity in which a theoretical structure serves as an explanatory aid for *observed reality*. It is a model that first conceptualises, and then explains reality, by postulating entities and processes as true representations of reality. The CBE model explains through the observation of the underlying correlation of the interrelated variables – a necessary, but not sufficient, requirement of theoretically postulated relationships. In so doing, this research combines three factors in inferential reasoning: modelling, measurement and statistics (Iacobucci, 1998, p.45).

This thesis presents a representation model for consumer brand equity as phenomena. Its *conceptual model* represents the basis for building an *analytical model* for measurement, and a map for uncovering the characteristics of the CBE construct. The *measurement model* enables one to perform statistical analysis as a means of assessing the 'true' characteristics and model fits, while the structural model facilitates the development of the temporal order of occurrences between various constructs that make up CBE. The *structural model* also serves as the basis for hypotheses testing as a means of making predictive inferences about the nature of CBE.

This is a syllogistic model (e.g. Iacobucci, 1998) in which theoretical representations underpin the development of a valid and reliable analytical measurement model. The

model of CBE developed in this thesis focuses on the *projective explanatory* and the measurement *capacity* for evaluating consumer brand equity. In this instance, theory serves as a guide for thinking about, and representing, the nature of consumer brand equity and its role in firms' competitiveness. This is because without an adequate theory, numerous 'bits and pieces' that are crucial aspects of the CBE 'ingredients' could be lost during the measurement stage. Explanation provides an avenue for comprehensive representation of issues prior to such measurement. It also aids the interpretation of data in search of an operationally meaningful measure. The interpretation of the analytical models captured in statistical expression is, therefore, guided both by theory, real life practices, and normative understanding.

1.7. THESIS STRUCTURE AND ORGANISATION

In the process of developing a model of consumer brand equity, we adopt four main steps in this thesis. First, an extensive examination of both scholarly and professional literature on branding, marketing strategy, consumer behaviour marketing and accounting and other areas related to branding discipline was undertaken. This literature analysis served as the background for: (i) the generation of ideas; (ii) a general understanding of branding as a topic; and, (iii) a basis for further identification of issues. The steps adopted for this investigation are depicted in Figure 1.1.

Construct Clarification

Qualitative Stage

Literature review
Conceptual explanation

CBE Focus Group
Initial item pool
Expert opinion-item reduction
Inter-judge reliability index

CBE Scale Development

Pre-test
Pilot test

Main Survey

Split sample in half

Exploratory Factor Analysis

Data reduction: item-to-total and inter-item correlation, Cronbach's alpha

Identification of model structure: internal consistency, content validity

Validation Sample
CFA-composite reliabilities
Discriminant validity
Convergent validity
Nomological validity

CBE Scale Validation

External validity

Generalisability Issues

Figure 1.1. Developing and Validating Scaling Instrument for Measuring Consumer Brand Equity

Topics were drawn from areas such as: the nature and role of branding, instruments of branding, evaluation of branding policy, consumer value perception, brand equity and attitudes towards brand. Other areas include: the marketing/accounting interface as it relates to brand intangible assets, brand valuation and consumer behaviour literature on brand image, perceived quality, consumer trust and the influence of changing cultural norms on brand.

This was followed by a specific and focused look at the analysis of brand equity in scholarly research, and a review of empirical works based on its *conceptual* and *operational* value. Following an extensive review of the literature (presented in chapters 2 and 3), supportable empirical conclusions were drawn from various researchers such as Aaker and Keller (1990), Carpenter and Nakamoto (1993), Farquhar and Pratkanis (1993), Park and Srinivasan (1994), and Srivastava, Shervani and Fahey (1998).

Following from the above, the second stage involves the identification of a theoretical approach for explaining consumer attitude and the consumer preference formation process. I also discuss the context within which such a theory could explain consumer brand equity. The basic framework for the current orientation about consumer brand equity is that, on the one hand, there is a resonance between consumers' desire for innovative worthwhile brand value proposition; and stability in, and persistency of buying a specific brand, on the other hand. For instance, children's need for entertainment has evolved greatly from Victorian toys, theatre, cinema, radio, or television, to theme parks, and to computer games. Yet, Disney is a brand that has evolved with time to serve the entertainment market span across Cinema, Television, Video, and Theme Parks etc.

From the above one could infer that, while the basis for buying a particular brand may be relatively stable over time (e.g. entertainment and transportation), the type of offerings that may fulfil such needs change all the time. A strong brand should be able to provide stability amidst such constant changes. This is because consumers' evaluation of the relevancy of a brand to them (in relation to other available options in the market place) influences the worth of that brand and the perceived value of such a

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is learned as technology, competition and market norms evolve (Coulson, 1966, p.59) to offer them new and innovative offerings. This development seems to influence both the longevity and image of brands. This is particularly apparent in those brands that seem to be totally unrecognisable from their earlier offerings. For instance, Coca-Cola was originally a green decoction in colour, while Mercedes Benz had a close affinity to a horse carriage (this is so different from the sleek smooth epitome of precision engineering that it is today).

The third step involves the formulation of a methodological framework that is appropriate for the investigation and designing suitable operational processes for instrument development.

The fourth step of the examination is the actual construct clarification and the development of a valid and reliable instrument for measuring consumer brand equity. In addition, it involves the examination of the structural relationship between the identified structures of CBE, using the instrument reliably validated and confirmed through confirmatory factor analysis (CFA). Finally, inferential analyses are drawn from the analytical findings of the empirical investigation.

1.8. CONCLUDING REMARKS

This chapter gave a general introduction to this research project on Consumer Brand Equity. I highlighted the objectives of this research, and presented a brief account of the theoretical underpinnings of the project. I also identified the gap in knowledge that needs to be filled. This gap provided the impetus for the project.

Following this introductory chapter, chapter two will review the mainstream literature on branding. It provides a review of topics on the nature of brand, branding strategy and instruments of branding. The chapter also discusses the distinction between various functional understandings of brand, and it presents an argument for an examination of brand equity in terms of its strategic importance.

Chapter three provides an interdisciplinary context for works on brand equity and related constructs — constructs which are drawn from accounting, marketing and

strategy research. The approach is historical in nature. It supplies the link between this investigation and earlier studies on the topic. However, given the extensive nature of available empirical and normative work on brand equity, only those that are directly relevant to the current research are specifically discussed.

Chapter four is concerned with the development of a conceptual framework for the research. It presents the explanation for reconceptualising consumer brand equity. It also presents a theory of consumer brand equity formation and discusses the specific propositions developed into testable hypotheses in chapter seven.

Chapter five describes the methodological framework of this research. It reviews the design of the questionnaire and its administration. The analysis and scale development procedure is described in chapter six—a chapter that also presents the confirmatory analysis on the models developed with a measuring instrument reliably validated.

In chapter seven, specific hypotheses relating to the structural relationships among three uncovered dimensions of CBE are developed. The structural relationships between CBE and *consumer perceived value* (CPV) will also be tested using a structural equation modelling technique.

Chapter eight discusses the outcome of research hypotheses in light of the identified structural relationship between our research constructs.

Chapter nine discusses the managerial, theoretical and methodological implications of this investigation. The chapter also explores the limitations of the study as the basis for suggesting further research directions.

These nine chapters are organised into 3 parts. Part I (chapters 1-4) discusses theoretical assumptions, contextual framework and research perspectives. Part II (chapters 5-7) deals with the research's methodological design and its operational procedures. In this part, I also give a report of empirical studies carried out in the process of developing a valid and reliable measuring instrument for evaluating consumer brand equity. Part III (chapters 8 and 9) is the concluding chapter of the thesis.

ANALYSIS AND REVIEW OF ISSUES IN BRANDING RESEARCH

2.0. ORGANISATION

This chapter reviews and discusses the literature on the nature and meaning of brand and branding strategy. The chapter is divided into eight sections. **2.1** is an introductory section in which we highlight the purpose and goal of this chapter. Section **2.2** examines the nature of a product and its relationship with brand. The section also traces the origin and development of the concept of brand. Section **2.3** is on the concept of brand and highlights its multifaceted nature and meanings. The section also offers a specific definition of brand in relation to current research. In section **2.4** various branding instruments are discussed as the tools of trade through which the concept of brand is actualised and implemented. Section **2.5** focuses on the benefits that may accrue to firms as an outcome of branding strategy. In this section, I also discuss how consumers benefit from their relationship with a brand. The benefit of branding is explored further by looking at different approaches to brand valuation in **2.6**. Section **2.7** looks at a non-financial approach to measuring brand performance. Section **2.8** is a conclusion to the chapter.

2.1. INTRODUCTION

The growing importance of brand in the market place is equally matched by a significant increase in the amount of published literature on various aspects of the concept. This interest is reflected in the works of scholars such as Aaker, (1991, 1996); de Chernatony (2001); de Chernatony and McDonald, (1998); Kapferer, (2001); Keller, (1993, 1998); and Murphy, (1990, 1992), among others. In practice, brand also reflects the dynamic and ongoing dialogue between companies and customers (Frank, 2001, p.254). According to de Chernatony, brands are "complex entities that can be simplified to the level of functional and emotional values" (de

Chernatony, 2001, p.xi). This complexity makes an in-depth review of the nature of brand an important consideration for this research on consumer brand equity.

To accomplish this review, several areas of research activity were examined for the purpose of identifying issues relating to brand. These include: marketing literature, research on branding, brand equity, customer behaviour, marketing strategy, accounting literature, and research on competitive strategy. Figure 2.1 highlights the relationship between the different sources of literature examined and integrated into the research reported in this thesis.

Literature review, including parent discipline

Research problem area (presented in chapter 3)

Boundaries of research problem

Part of research problem already studied in previous research (discussed in chapter 3)

Research questions or hypotheses not answered in previous research
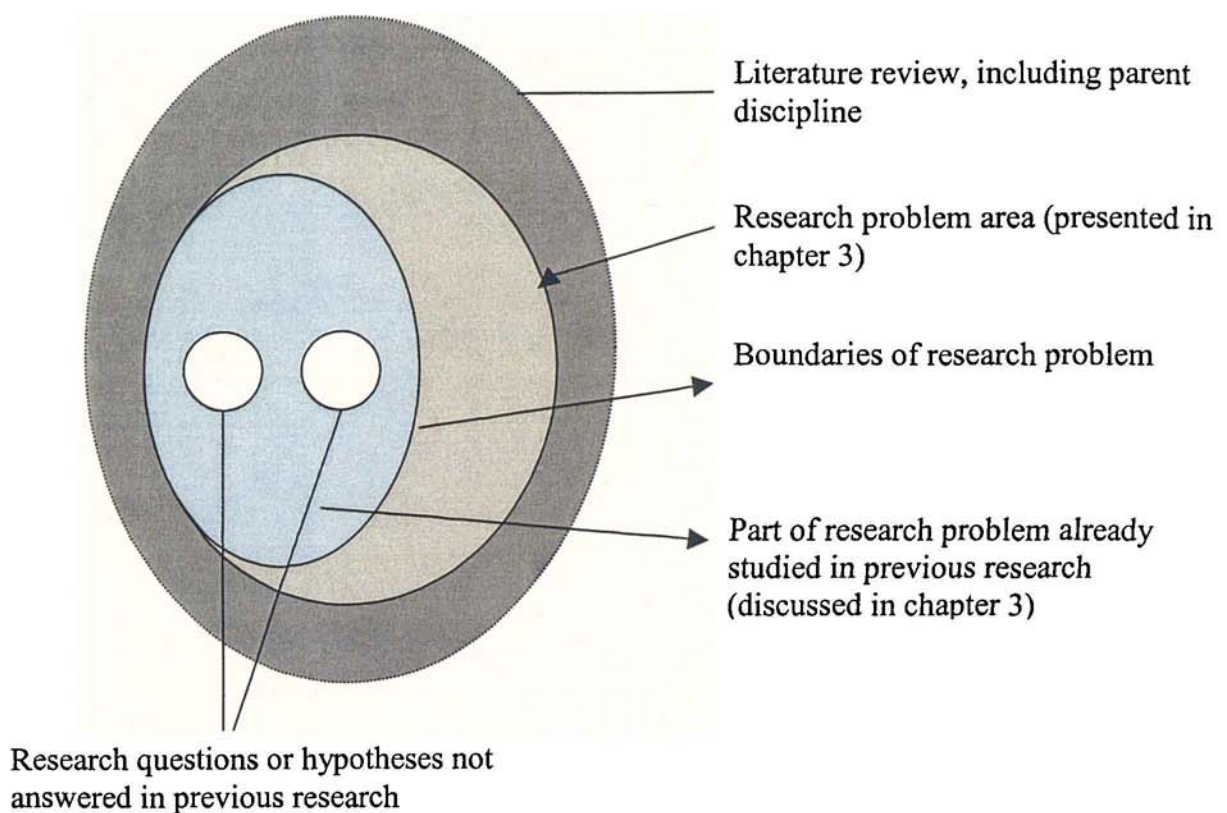
Figure 2.1. The Scope of Literature Review (adapted from Perry, 2000, p.17)

2.2. THE PRODUCT AND ITS NATURE

A product can be defined in terms of its characteristics and attributes. Explaining a product in terms of its characteristics takes into account its capability and the wants it satisfies. For instance, (Kotler, Armstrong, Saunders and Wong, 2001) maintains that a product is anything that can be offered to a market for attention, acquisition, use or consumption for the satisfaction of need or want. A product can also be explained in terms of the bundle of functional attributes it offers for individual consumptions or for later use in secondary processing (Peter, Olson and Grunert, 1999). It can also be described as an output of agricultural and manufacturing activity, representing an outcome of an industrial process offered in an exchange situation. Chamberlin (1953) conceptualised product from this perspective and wrote that:

> 'Product' is used in the broad sense to include all aspects of the good or service exchanged, whether arising from the materials or ingredients, mechanical construction, design, durability, taste, peculiarities of package or container, service location or seller, or any other factor having significance to the buyer (Chamberlin, 1953, p.3)

Clearly, Chamberlin's explanation is based on the prevailing market situation of the industrial era upon which his study focused. Yet, his definition encompasses services and physical products on the one hand and the extrinsic and intrinsic aspects of a product on the other. What then are the intrinsic attributes that make up products? Intrinsic or objective components of a product differ from one product category to another. But these may include features such as ingredient, chemical compositions, functional mechanical units and the process that it has undergone. Examples of these are the processes of producing food such as kosher, halal and organic food and in manufacturing such as British, European Standard or international standard (e.g. BS 5750, or ISO 900).

2.2.1. Product Definition

Following Kotler, et al, (2001) and Peter, Olson and Grunert, (1999) this thesis defines a product as a bundle of *intrinsic attributes that is capable of satisfying consumer functional wants and needs.* Intrinsic components represent the substance of a product and its essence. But intrinsic compositions are ever evolving. They are continuously being changed, improved upon, or redesigned in accordance with

technological innovation and normal market processes. Also, advancement in the production and manufacturing processes of industrialised economies means that most products — barring catastrophic accidents, counterfeits or 'deliberate acts of passing off'— are of a better quality than were obtainable even a decade ago.

However, such quality is not easily definable across the spectrum of what the producers put in and what the consumers perceive and evaluate such quality to be (Bowbrick, 1992). Even where it is possible for a consumer to evaluate the intrinsic quality of a product, the consumer may not have the technical know how to compare such intrinsic qualities of every single product. Moreover, even though some consumers may have the necessary scientific knowledge for evaluating objective quality, they may not have the necessary time for carrying out such an assessment.

In the absence of technical expertise and time for testing the objective composition of a product, a consumer develops a perceptual rating which is based on extrinsic cues and other subjective connotations. While the distinction between intrinsic and extrinsic value seems clear enough, it is increasingly clear that consumers' evaluation of intrinsic values are constantly influenced by extrinsic factors. Following Levitt (1960), one can, therefore, say that a product is only a part of what the consumer buys in the market place. The consumer buys a combination of a product and 'something else'. This 'something else' conveys information on the item, and it also persuades consumers about the reliability, relevance, social value and the safety of their purchase. A combination of intrinsic product and extrinsic cues and other perceptual ideas, represents the whole of what a consumer purchases in an item. This is a brand.

2.2.2 Brand Origin and Conceptual Development

If a brand is a combination of intrinsic, extrinsic and perceptual qualities, what is its nature, how does it come to be, and what are the contents of its extrinsic and perceptual compositions? In the absence of a singular encompassing definition, describing what a brand *is* requires examining different strands of explanations. This thesis reports research on *consumer brand equity,* of which brand is at the very core of this construct.

Murphy (1992) traced the origin of brand to the early guild of tradesmen. Artisans signed their work with a mark or symbol that was clearly identifiable with them, or with their guild as a mark of authentication. Identifying a product that offered a consistent level of expectation thus became easier. Basic products offering a consistent level of expectation became easier to identify with the development of relative quality across markets. The development of consistent quality in consumer goods facilitated the development of trademarks and led to the emergence of the earliest forms of the modern brand, which can be traced back to the Procter and Gamble's Star candles that were made in Cincinnati in the 19th century (Keller, 1998). These candles were sent to other cities along the Ohio and Mississippi River and by 1851:

> Wharf hands began to brand crates of Procter & Gamble candles with a crude star. The firm soon noticed that buyers down-river relied on the star as a mark of quality, and merchants refused the candles if the crates arrived without the mark. As a result, the candles marked with a more formal star label on all packages, were branded as "Star", and began to develop a loyal following. (Keller, 1998, p.28).

This represents the earliest example of modern day brand as a creation of market place reality in which the buyer dictates the emergence of a brand. To understand brand as a concept, as opposed to its historical existence, one needs to explain the brand in conceptual terms. In explaining brand as a concept, the emphasis will be on its nature and its perceptual reality from the vantage point of the consumer.

2.2.3. The Concept of Brand

If the above represents historical development of the modern day brand, the conceptual development of brand as a topic in scholarly literature (as distinct from a product) accelerated in marketing over a relatively short period of time. Gardner and Levy (1955) represents one of the earlier works that explicitly focused on brand. According to them, a brand can be defined as:

> ...the complex symbols representing a variety of *ideas and attributes* that surrounds a product. (Gardner and Levy, 1955, p.35)

These ideas include subjective perceptions based on imagery, symbolism, reputation

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and other extrinsic attributes. These ideas and attributes are said to embody and communicate many things about a product to consumers. These subjective ideas and attributes are held together by a specific brand name. However, such a brand name may also communicate unique functional attributes, subjective virtues surrounding the product, and other information that consumers may have accumulated over a period of time. These accumulated ideas are said to influence consumers' perception of a brand (see for instance, Arnold, 1992) and the reality of what it means to them.

Other scholars such as Gardner and Levy (1956), and Levy (1959) expressed the more profound view that the consumer realities which influence and stimulate individual purchase decisions are mainly based on individual consumers' subjective ideas of brand and their *perceived reality,* rather than objective reality of the product. Such perceived reality is not based on the functional attributes of a brand alone. This is particularly so as selection of brand attributes by adding its utilitarian functions (e.g. Carpenter et al., 1997) is beyond the technical skill of many consumers. Rather, everything people associate with a brand—extrinsic and intrinsic—contributes to what consumers purchase. In the same vein, Penrose (1995, p.83), referred to a package of psychological promises bundled with a product on offer to the consumer.

King (1973, p.v), gave a more in-depth analysis of brands as the epitome of the marketing process. King explained that a product is what the firm manufactures; a brand is what the consumer buys and what makes the company succeed. While the product is the intrinsic element of the brand, it represents the basic element in a whole article to which the consumer attaches value. This subjective belief held by customers represents the essence at the heart of brand. Figure 2.2 depicts the relationship between a brand and a product.
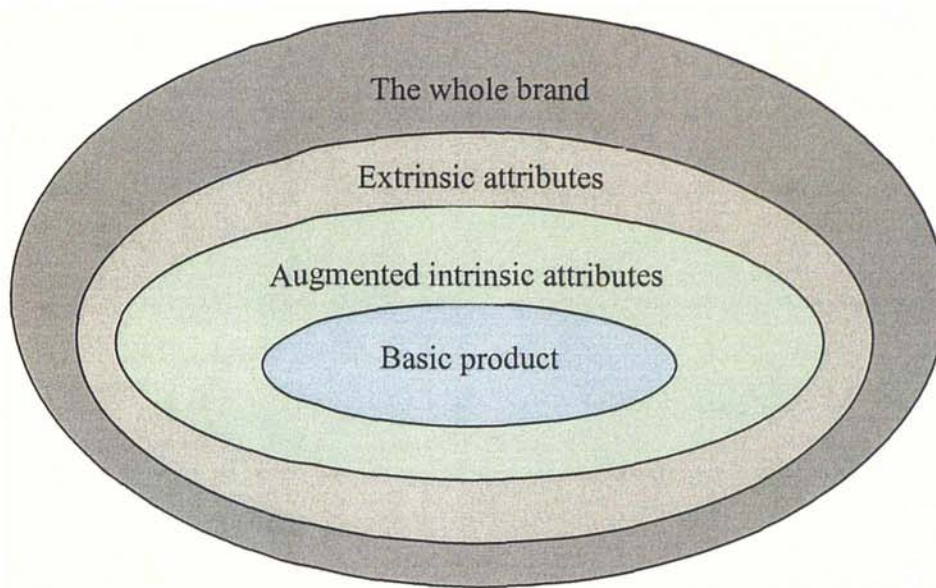
Figure 2.2 Holistic Representation of a Branded Article (Based on Levitt, 1980).

This is elucidated in terms of the 'psychological values' brought to bear on enhancing the functional benefit of a brand beyond its utility capacity (Levy, 1997). This psychological value is embodied in the complex variety of 'soft' attributes and other associations that determine the desirability of purchasing a particular brand instead of its alternatives. These subjective attributes embody the value over and above the basic product that a brand provides to consumers.

However, suppose one were to ask the question: how are successful brands built? It is unlikely that merely examining brands with high brand equity would be enough to provide one with visionary insights. Furthermore, while most people will agree as to what a brand is, there is no singular acceptable conceptual definition of a brand. It should be noted, however, that this definitional problem is not peculiar to brand. Generally, the definitions adopted by researchers, particularly in the social sciences, are more often than not controversial in nature (Kerlinger and Lee, 2000; Perry, 2000).

2.3. BRAND AND ITS MEANING

Brand is sometimes seen in terms of its identifications, brand name and its long-term communication elements. It is also regarded as added value that enhances the intrinsic value of a product (Farquhar, 1989). An earlier definition by de Chernatony and McDonald (1992) opined that the added value that a brand provides differentiates it from a commodity. In the same vein, Doyle (1994) defines a brand as a successful integration of an effective product, distinctive identity and added value. The definition of brand as added value has its origin in economics where added value refers to the difference between the cost of an offering and the actual price it can attract in sales. In the marketing context, it refers to subjective attributes such as those built around names, symbols, colours, slogan, tag line and other devices created to link a product with the market. For instance, in the definition of brand offered by the American Marketing Association (AMA), the professional body for marketers in the USA, Kotler and Armstrong[1] define brand as:

> A name, term, sign, symbol, design or a combination of these, which is used to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors. (Kotler and Armstrong 1994, p.285)

This definition resonates with the historical role of branding as identification of ownership (see Murphy and Hart, 1998). What seems implicit in the ownership explanation is that it fits very well with the production era marketing for which the above definition is perfectly suited. It also provides a simple definition that aggregates the various elements that make up a branded item. However, it is important to look deeper into the meaning of a brand as the basis for creating continual value for the consumer. These reviews, therefore, centred on the analysis of brand meanings rather than its descriptive categorisation.

Murphy (1992) used the *gestalt* theory to explain the complex nature of the brand. To Murphy while a brand is made up of different constituents of both tangible and intangible elements, it is not simply the sum of its individual parts that makes up a brand. Therefore, "any attempt to analyse the whole by breaking it down to its

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[1]Kotler and Armstrong's definition is based on Peter D. Bennet, (1988) *Dictionary of Marketing Terms*: Chicago, AMA. and AMA (1960) *Marketing Definition: A glossary of marketing terms*. Chicago: AMA.

molecular component" (Murphy, 1992, p.2) will not adequately capture the concept. Brand then acts as a *gestalt* in that it is a concept that is more than the sum of its parts – parts that may have developed out of numerous scraps of information that it has established in consumers' minds.

Of course, for a brand to establish a different pattern of beliefs and values that consumers internalise as gestalt (Solomon, 2002), it needs to offer credible, coherent, and attractive value propositions over time. To Murphy therefore, a brand represents a relational pact that is effectively a:

> ...pact between the owner and consumer to shop with confidence in an increasingly complex world, and it provides the owner with higher volumes, often higher margins and greater certainty as to future demand. (Murphy, 1992, p.3).

In keeping with its notion that a brand embodies many parts, Keller (1998 p.4) defines brand as: "*a product, then, but one that adds other dimensions to differentiate it in some way from other products designed to satisfy the same need*". In terms of the gestalt analogy made by Murphy (1992), one can argue that this differentiation and satisfaction dimension is also part of what makes a brand. But this still does not explain the whole brand! This is because the uniqueness of a physical composition (product) and its presentation may not explain the concept of a whole brand. Keller (1998) went on to observe that brands tend to create uniqueness through perception in the mind of the consumer, that there is no other brand quite like a successful brand. If differentiation of physical product does not represent the whole brand, what explanations can one have for the concept of brand?

Of course one will be right to define brand as the product or service that a particular firm is offering to customers in the market place and that such a brand is differentiated by its name, presentation and the uniqueness of its compositions. However, it is erroneous to assume that this is all there is to explaining the essence of a brand.

This is because, with increasing technological and manufacturing sophistication, many brands competing in the same product category can be produced to a

virtually identical specification. Furthermore, they can be produced at exactly the same cost. This in turn can create parity among brands in the same product category. With such possibility, one cannot assume that uniqueness of composition and presentation makes a brand. This by itself suggests that there are many other factors that come together to explain a brand.

This multifaceted explanation of what a brand connotes is also apparent in practice. In fact, empirical research on the concept of brand has reported the multifaceted meaning of the concept to many people involved with it. For instance, empirical research by de Chernatony and McWilliam (1990) and de Chernatony and Dall'Olmo Riley (1998) finds that in practice, managers variously viewed and typified brand on the basis of its corresponding role within the individual functional department to which their professional orientation exposed them. They identified twelve representations of brand as: i) legal instrument; (ii) logo; (iii) a company; iv) as a shorthand; v) risk reducer; vi) identity system; vii) an image in consumers' minds; viii) a value system; ix) personality; x) a relationship; xi) adding value and, xii) an evolving entity.

Despite these numerous manifestations, consumers are always prepared to "impart to the brand an authority and unity, a cohesion, which functions as a *gestalt* prompting recognition, confidence and easy familiarity" (Murphy, 1990, p.3). Therefore, an examination of the meaning of brand in this thesis will be based upon its ability to be many things to many people, yet convey authority, cohesion, confidence and prompt recognition to the consumer.

Following Chernatony and Dall'Olmo Riley (1998), this thesis discusses the concept of brand in terms of four distinctive themes that provide an understanding of consumer brand equity. These are brand: (i) as conveyor of information to the consumer; (ii) brand as symbolism (Levy, 1959) and, (iii) as relationship. Finally, brand is also examined as (iv) risk reducer (Roselius, 1971).

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2.3.1. Brand as Shorthand: A Conveyor of Information

In a market where consumers are offered a myriad of competing brands and an equal number of substitutes, making a simple choice can be a time consuming chore. Furthermore, competing brands are also making functional and perceptual claims about the uniqueness of their offerings. These sometimes make brand purchase decisions difficult for the consumer. Brand serves as a simple way of making sense of numerous functional and non-functional benefits on offer in such a complex situation. Brand, therefore, simplifies the process of making a purchase decision. It acts as shorthand for recalling various mental impressions of both functional and non-functional characteristics that a brand has accumulated over time. These mental impressions are created by previous exposure to the brand, by perceptual stimuli.

Consumers' exposure to sensory stimuli influences their perception of a brand. Perception is the process by which various external stimuli surrounding a brand are selected, organised and interpreted. Consumers are then able to relate further new information to that already in their memory based on fundamental organisational principles. Gestalt psychology maintains that people derive meaning from the totality of a set of stimuli, rather than from any individual stimulus (Solomon, 2002). These stimuli include those elements that form part of the branding instruments such as symbols, logos, trademarks, jingles, colours and other sensory information to which they have been exposed over a period of time.

Consumers' previous exposure to a brand may include prior usage, trial purchase, friends and family recommendations and 'grapevine' information. This information informs their interpretation of everything they know about a brand and their attitude towards such a brand. Deliberate brand support information also abounds in numerous media through both advertising and other forms of brand communication such as those placed in relevant newspapers' topical features, magazines and trade journals (Stevens, 1981; Schultz, 1998) as a means of generating credence support.

The credence with which consumers endow a brand may then inform their attitude towards a brand and be stored as data in consumers' memory for future retrieval when

necessary. The *gestalt theory* suggests that brand information can be triggered by marketing messages through several cues. These may include extrinsic cues such as point of sales information, jingles, advertisements, etc. It could also include intrinsic cues such as taste, smell and feel for items like chocolate, soup, leather goods and clothing. Figure 2.3 (adapted from Solomon, 2002, p.43) presents an overview of the process through which sensory stimuli, their receptors and interpretation influence consumer perception. Other external cues such as corporate profiles, news and stock market events relating to the manufacturer are also important sources of information that may influence consumer brand purchase decision making.

SENSORY STIMULI   SENSORY RECEPTORS

- Sights ——▶ Eyes
- Sounds ——▶ Ears
- Smells ——▶ Nose   Exposure   →   Attention   →   Interpretation
- Taste ——▶ Mouth
- Texture ——▶ Skin
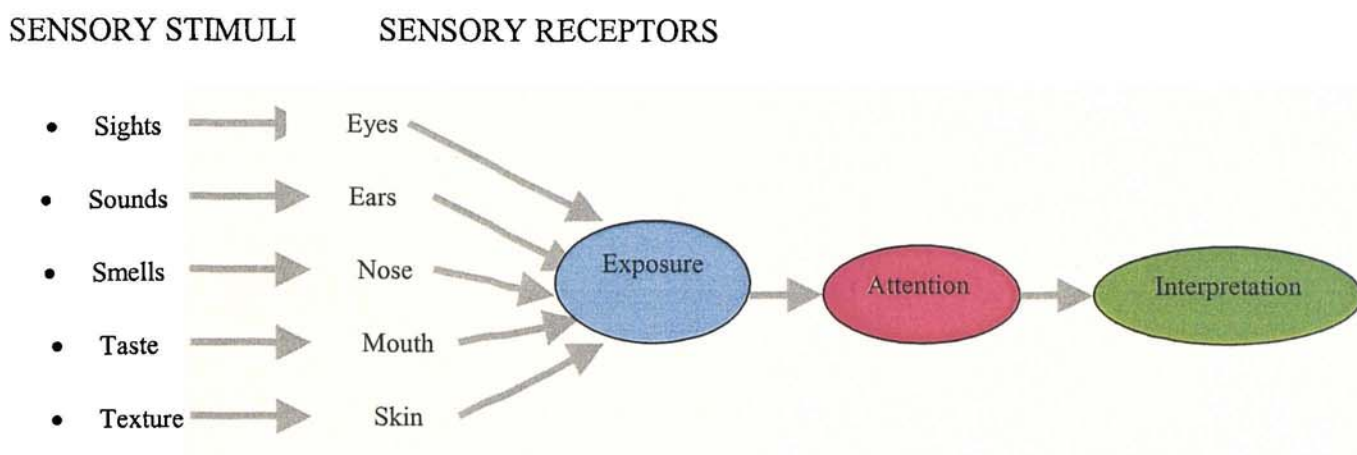
Figure 2.3 An overview of the Perceptual Process Through Sensory Information

2.3.2. Brand as Symbolism

In addition to its product function, brands have personal and social meanings. As the social meanings of brands become more important than their functional usage, the experiences that consumers have with a brand become more mediated, rather than a direct effect of the functional meaning of a brand. This implies that brand is understood to mean not only what it is functionally used for, but also some other ideas or feelings as its symbolic nature becomes more important than its functional impact (Levy, 1959, 1999). A symbol is something (a word, an image or an object) that stands for or signifies something else (Peter, Olson and Grunert, 1999, p.274). A brand is therefore also a symbol.

The symbolic nature of brand is more apparent as the consumer uses the purchase of a brand to enhance their sense of self. They are also increasingly making non-purchase of a brand a significant gesture for expressing their belief about issues. For instance, the boycott and campaign against brands such as Nike and Gap by anti-globalisation campaigners represents an attempt to symbolically express the belief of specific consumers about the appropriateness of the global intention of these brands' manufacturing process. This implies that consumers are "able to gauge grossly and subtly the symbolic language of brands and then translate them into meanings themselves (Levy 1999, p.207). What then are the sources of meaning that the consumer interprets and projects into a brand?

Consumers draw the meanings associated with a brand from several sources of association. The specific stimulus of celebrity endorsers such as Michael Jordan for Nike and various Hollywood makeup artists for Revlon are well known sources of brand communication. Other extrinsic cues such as packaging, colours, smells and shapes represent important sources of marketing stimulus about brands that consumers store in their memory.

Marketing mixes such as elaborately staged television commercials, price and product design, represent another source of symbols. Deliberate media communications such as product placement, journalists and opinion leaders' comments are other sources of ideas and knowledge about a brand. When making sense of a marketing stimulus, consumers interpret the meaning of these stimuli in relation to previous associations from various sources that are linked with these images. These associations influence the meaning derived from marketing stimuli and the inferences drawn from them. Solomon (2001) observed that the meaning which consumers derive from this process is influenced by their perception of signs which are related to a brand through either conventional or agreed upon associations. One can therefore say that symbolic meaning represents the psychological and social meanings of brands for consumers. Consequently, the non-functional meaning of brand becomes more relevant than its physical attributes or its functional consequences.

A brand is more symbolic in nature and its essence depends on its psychological and

social value rather than its functional attributes (Carpenter et al, 1997). But its symbolic aspects cannot be said to represent the whole brand. This is because there can never be a brand without a product, services, process or experience that serve as the core around which psychological and social meanings are associated, and from which symbolic interpretations are derived. One may, therefore, conclude that defining brand solely in terms of its symbolic meaning is too artificial. Moreover, total reliance on a brand's functional meaning will be too mechanical in orientation. The functional (product) side of a brand represents the object to which a specific sign is attached. Both object and sign inform consumers' meaningful interpretations of a brand. Therefore, symbol constitutes an important facet of brand meaning upon which consumer purchase decisions are based. Figure 2.4 adapted from Solomon (2001, p.63) depicts an example of the relationship between object, sign and interpretation.
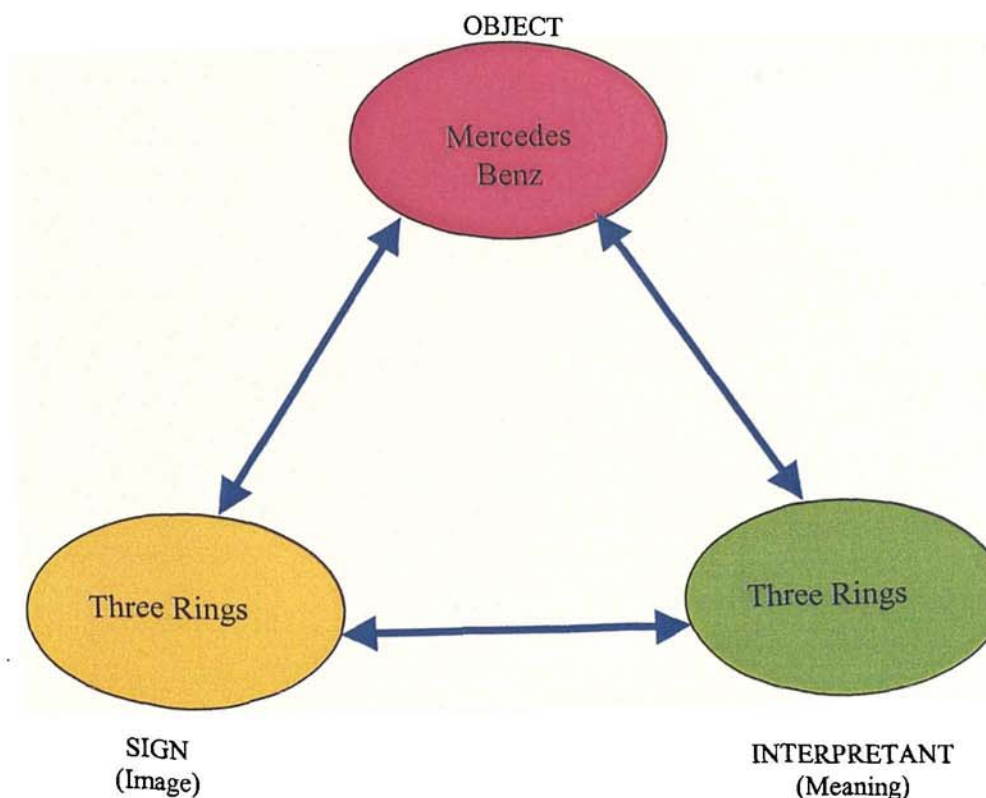
Figure 2.4 Object, Sign and Interpretation: Symbolism and Meaning

2.3.3. Brand as a Relationship

As mentioned above, the nature of the associations that consumers hold about brands is generally derived from the meanings that each brand creates or evokes in their minds. For instance, stronger brands may consistently evoke a rich array of favourable meanings and associations (Biel, 1993, p.72; Batra, Meyers and Aaker, 1996 p.320). These associations can be built around the rational aspects (i.e., aspects dealing with the functional attributes of a brand such as durability, speed, safety and price). A brand's associations could also be built to appeal to emotional elements, thus evoking a psychological association (Riezebos, 1994, p.25). Each of these may in turn contribute to different aspects of consumers' memory. The rational information and cognitive sense may help in brand risk assessment, but the emotional part may trigger the affective parts of the memory.

De Chernatony and Dall'Olmo Riley (1998) goes further to say that brand is sometimes defined from this perspective as a relationship (e.g. Aaker, 1996; Ambler, 1992; 1996; Plummer, 1985) in which all the feelings, imagery, thoughts, usage memory, colours and smell form the basis upon which the consumer mentally thinks of the brand as a person. The characteristics that evoke a brand in consumers' minds are then used to define brand personality and form the basis upon which they think of a brand and determine how they relate with it (See for instance Jennifer Aaker, 1994). For instance, certain brands are associated with users who choose to portray themselves with the specific connotations and personality that a brand conveys. This sometimes provides an avenue for self-expression, particularly in a fast-paced post-modern society. Consumers seem to have an eye for the future, and nostalgia for the past, in which the brand helps to establish the user's expression of self and also serves as a link with a past self. For instance, Harley Davidson motorbikes and punks/hell's angels-type of people epitomise this combination of past/future integration.

As argued in the literature (see for instance, Batra et al, 1996), the compatibility between consumer and brand in such a relationship depends on how they characterise each other. Human beings may describe someone as 'warm', 'lively', 'amusing', 'feminine' or 'sophisticated' and use such descriptions to form judgements about one

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another. Findings from empirical research on symbolism also provide evidence that in brand perception consumers do transfer this type of personality assessment to brands (e.g., Aaker, 1997; Osselaer and Alba, 2000). However, this does not totally capture the essence or the basis for defining a whole brand.

2.3.4. Brand as Risk Reducer

Risk reduction is probably one of the most important factors that consumers face in many buying situations. The level of risk that consumers are exposed to also differs from one market to the other. For instance, the level of risk in the fast moving consumer goods market may be less life threatening than flying in a malfunctioning aeroplane. Yet this difference in consequences may not reduce the sense of mistrust that a consumer has about a particular item. Bowbrick (1992) opined that risk has two important elements that are relevant to consumer consideration. These are: the likelihood that a product will not perform as expected, and the effect of such non-performance to them. Consumers are, therefore, sensitive to any potential risk they may be exposing themselves to in buying a product. A brand helps consumers to reduce the level of risk they are exposed to when purchasing an unknown commodity. Of course, this does not completely eliminate risk that sometimes occurs during the production and distribution process.

The point then is that in making a purchase, the buyer relies on the brand to guard against the risk of making a wrong choice at an inappropriate cost. The risk of the latter is not defined in terms of monetary value alone. It also includes the time and search effort, as well as risk that may be encountered due to the usage of the unwanted brand. These may include physical risks such as monetary loss, health and personal injury. It may also be an emotional or psychological risk such as damaging one's personal standing among friends and family, and loss or damage to an item of sentimental value. With increasing functional parity and the sheer proliferation of brands, consumers find it easier to interpret the benefit which a familiar brand offers them, and feel more confident in their purchase without having to make extensive risk analysis (Batra, 1996).

Explaining brand as a risk reducer recognises that consumer perception of risk can be changed in several ways; for instance, by providing detailed information about a particular brand, that brand becomes the basis for making a more informed choice. Information that a particular brand is not made from genetically modified food, or that it contains no added artificial or additive chemicals, may change consumer perception of a brand. Marketing strategies for risk reduction such as guarantees or warranty also serves as a perceptual risk reducer even in the absence of any objective changes in a brand. Consumers may resort to buying the same brand repeatedly, thereby expressing their confidence in the purchase decision (Aaker, 1991; Riezebos, 1994). Figure 2.5, adapted from Roselius (1971) and Solomon (2002), depicts possible sources of risks that consumers may want to avoid.
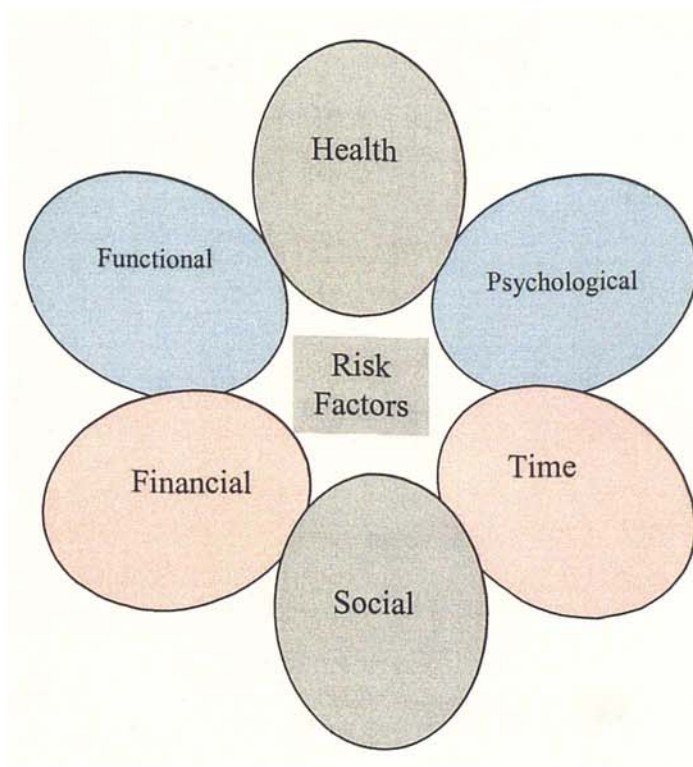
Figure 2.5 Possible Sources of Risk for Consumer

2.3.5. Specific definition of brand for this thesis

It is accurate to say that many people know what a brand is because they can immediately come up with an example of a typical brand. In terms of definition however, it is difficult, given the discussion above, to have one all encompassing definition that will satisfactorily explain the concept of brand. Kapferer (2001) observed that the inability to come up with a singular definition reflects the complexity that is inherent in any attempt to define a concept, which in reality may mean different things to many people. Kapferer (2001) went further that:

> It is as if any definition that came to mind would not be complete. Some people talk about the name by which a product is known, others about added value, image, expectation, values, still others about the differentiating mark of the product and consumer badge. In fact they are all right in their own way –a brand is all of these things simultaneously. (Kapferer, 2001, p.3.)

In the light of the complexity that has been discussed above, one could agree with Kapferer that the reality of modern brand makes it impossible to ascertain that a singular definition can capture all types of brand in their different guises. One may not be able to reduce all its parts to one all encompassing definition. Building on the issues discussed above, a specific definition of brand is offered to reflect the particular approach of the research reported in this thesis. Hence, a brand is defined in terms of its perceptual intangible elements as much as its tangible aspects. Following Murphy (1990, p.4), this thesis defines brand as *a blend of attributes, both tangible and intangible, which are relevant and appealing, and which meaningfully and appropriately distinguish one brand's uniqueness from another.* How then could a firm develop a brand with these attributes? The next section explores this process by examining some of the basic instruments of branding.

2.4. BRANDING INSTRUMENTS

Branding instruments are those features deployed in the process of developing and selecting brand names, brand marks and other tactical features in supporting and implementing branding strategy. These instruments include features that enhance brands (e.g., features such as brand name, logo, copyright, and registered design). The instruments may be the symbolic, graphic, or the legal elements from which brand

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reality is constructed. These instruments are central to brand management for two reasons. First, branding instruments are the tactical tools of the trade with which branding strategy can be put into operation (Murphy, 1992). Secondly, they serve as an outright embellishment that distinguishes one brand from another and protects a brand from infringement by counterfeiters and 'me-too' brands.

Each brand instrument is briefly examined below in relation to its role in branding strategy and success. Each one of these instruments, apart from advertising, is a legal entity recognised for specific types of products, services and ideas. For instance, copyright is usually awarded for literary works such as books, articles, pictures and art objects. A patent is usually awarded for innovative activities relating to mechanical, electrical, digital, chemical or biological inventions. Registered design, on the other hand, is usually reserved for art-based ideas such as designs used for wallpapers, ceramic and cutlery items, carpets and other items. The specific usage and role of these six branding instruments is depicted in Table 2.1.

Instrument	Example of role in branding	Specific usage
Trademark	Specification of ownership, legal protection, identification	Guard against counterfeit, reinforce first user's claim
Brand name	Associative link for other instruments of branding	A readily available 'folder' for the consumer to store known facts about a brand
Patent	Legal ownership of scientific, biological, bio-genetic, digital, mechanical ideas over a period of time	Recognition of invention and innovation and the appropriation of gains accruing from them over a specific period of time
Copyright	Physical expression of creative effort particularly in literary, dramatic, musical and artistic works, sound recordings, films and broadcasting artwork	Provide legal protection and distinctive specification of ownership
Registered design	Symbols, logo, patterns, marks, configuration, shape and ornamentation	Provide external cue to reinforce image and uniqueness
Advertising/ brand communication	Brand communication including general forms of communication, co-branding and brand bundling	Informing, persuading, reminding by creating awareness

Table 2.1. Types and Roles of Branding Instruments

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2.4.1. Copyright and Trade Mark

Copyright is a legal seal that confers legal ownership right to authors of creative work such as written, artistic or literary works. Copyrights also give exclusive publication, production or sales rights to the creators of artistic, literary, dramatic, or musical works. Examples of this include articles, books, drawings, maps, photographs and musical compositions.

The brand mark is one the earliest forms of competition with which merchants, farmers and producers distinguished their product from competitors' products on the one hand, and counterfeiters' products, on the other. This form of competition has been in use since pre-industrial societies (Howard, 1977, p.5). Brand mark, then, forms the basis of familiarity that determines the pattern and quality of exchange between the buyer and the seller. The earliest signs of brand evolved in the medieval guilds of craftsmen who put a trademark on their products to protect themselves and consumers against articles of inferior quality (Murphy, 1992a).

A trademark is a specific name or mark that is legally protected through registration with the patent and trademark office in a particular country. Trademark forms the basis of legal protection upon which a brand's legal entity is based. Trademarks, copyright and registered design are legal representations of brands that are the basis upon which brand owners can protect their brands from 'look-alikes' and counterfeiters. They guard the brand from possible encroachment by counterfeiters and 'me-too' copies which attempt to cash in on a brand's goodwill and reputation. Counterfeiting is an area of great importance. It is a criminal offence under Section 92 of the Trademarks Act 1994 in the UK.

While retailers do infringe on the Act, it is an offence for a person, without the consent of the trademark owner, to use signs that are identical to, or are likely to be mistaken for a registered mark. It is estimated that 6% of world trade involves counterfeited goods (Murphy and Hart, 1998). Also the creation of 'look-alike' products by retailers sometimes creates an infringement on a manufacturer's trademark. For instance, when Sainsbury launched its 'Classic Cola' with a Coke look-alike design and packaging, Coca- Cola quickly and effectively embarked

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on a legal move to stop Sainsbury from infringing on its brand. Sainsbury had to modify its brand in response to Coca-Cola's determination to wage a legal war to protect its brand. McVities also won a legal battle to protect its Penguin brand from ASDA's 'look-alike'. In both examples, it was the power of brand's visual imagery that spurned such imitation (Feldwick and Bonnal, 1994).

2.4.2. Registered Design: Logo, Symbols, Marks and Patterns

The registered design is a logo, symbol, mark or other pattern combination, which may be made up of letters, figures, colours, pictures, etc. For example: McDonald's 'arch', Nike's 'Swash mark', Mercedes Benz's 'three rings', and, the Olympics' colour and interwoven rings, are some of the most popular and protected brand marks. These are central to packaging and other extrinsic cues that a buyer could relate to in a brand (i.e., design, symbols and logos clearly identify the brand and reflect its uniqueness). For instance, Campbell's red can and Heinz's famous green labels are some examples of well-known labels and packaging. Cadbury's Dairy Milk also has a distinctive combination of different shades of purple that make it immediately recognisable. Brands in product categories such as perfume, luxury tea and coffee rely on exotic shapes and sizes of packaging as distinctive external cues. Packaging does have specific brand appeal in its own right. For instance, perfumes such as Faberge, Chanel, Lancome etc., are distinctive in their attractive packaging, and brands such as McDonald's, Nike, Mercedes Benz, etc., are immediately recognisable from their packaging and design.

Firms with worldwide brands, such as Coca-Cola, Microsoft, Rank Xerox, McDonalds and IBM, commit a large amount of funds to the legal protection of their registered design brand name in an effort to combat the activities of counterfeiters. The British Brands Group, a lobby organisation that represents the interests of brand owners, recently presented the results of a consumer survey in advance of the second reading of the 'Competition Bill' in the House of Commons. The report found that 42% of consumers thought that look-alike packaging might lead them to purchase the wrong product, while 32% thought that look-alike packaging indicated that both products are made by the same company (*Brand Strategy,* 1998, p. 2).

2.4.3. Patent

Patents are exclusive rights to a new and useful product, process, substance, or design. Obtaining a patent necessitates that an invention is new, useful and not *immediately* obvious. Patent varies from country to country, but there are many countries which operate the common law systems (e.g. UK, Australia, New Zealand) differently from the USA system. Although patent confers a property right to its owner, the ability of an owner to gain from its invention depends on its successful establishment of market presences. Branding represents an example of such market presence.

The role of branding in creating market presence for patent inventions is reflected in the Intel microprocessors brand. Perhaps the most effective branding effort of recent times is the Intel's branding of its Pentium microprocessor range. Intel's unique computer chips and microprocessors were previously named as 286, 386, 486. Even though Intel has numerous patents for each of its microprocessors, these names, which are based on a sequential series of upgrades, were being used by other manufacturers as a non-proprietary brand. A coherent branding strategy was launched to counteract such blatant infringement upon Intel's patent and to guard against turning the microprocessor into a generic product.

A clear cohesive branding policy was launched. Advertisement and corporate communication were used to familiarise consumers with the new brand. Strategic alliances with major bulk buyers such as IBM, Dell and Compaq were used to present the Pentium series. Since consumers were unaware of what a microprocessor was prior to the launch of Pentium as a brand, Intel's communication through major PC makers was one of the hallmarks of an assertive, cohesive and consistent implementation of a competitive policy of branding. Pentium processors were made relevant to users and their needs, by communicating through advertisements that the PC's capacity has continuously increased over the years. Clearly, it was differentiation, communication of brand relevance, and Intel's assertive management in creating high-level consumer awareness, that curbed the erosion of Intel's patent. This erosion represented a major threat in a rapidly changing product category. Intel forestalled the danger that had previously threatened others like Zips, Escalators and Aspiring: all major trademarks that have fallen victims to their own success.

2.4.4. Brand Name

The classical notion of brand as the mere naming of a functional product is now recognised as an inadequate depiction of the reality of what a brand represents to the consumer alone. This is because a name does not in itself connote the brand. There are fundamental differences between a brand and the name that embodies the essence of that brand. However, there is an inherent difficulty in any attempt to communicate the essence of a brand without a specifically established name with which to associate and classify the bundle of ideas and attributions that the brand is offering to its customer.

As brands compete with each other for consumers' attention and consideration, names represent core instruments that enable them to have a vocal representation of each brand. A brand name can be defined as the vocal part of a brand that can be spoken such as word, letter, number or any combination of these (e.g. Johnson and Johnson, DKNY, 3M, AA). Brand names act like a special:

> ... file folder in the mind, which can be filled with name-related facts and feelings. Without such a file readily accessible in memory, the facts and feelings become misfiled, and cannot be readily accessed when needed (Aaker, 1991,p.63).

This assertion aptly captures the symbiotic relationship between the brand and the brand name. Brand names are the potent and visible embodiments of what brands symbolise and are sometimes confused with the branding strategy itself. They are one of the 'most readily protected components of a brand' (Murphy, 1992) and the single most potent means of differentiating a brand from its competitors, imitators and substitutes. The name serves as the emotional curator of brand proposition to the consumers as well as the medium through which the manufacturer can communicate with them. Aaker (1991, p.63) eloquently defined the relationship between a brand and its name as that of a mutual dependence in which one lives on, or within, the other.

The importance of a name as an essential instrument of branding strategy can be retrospectively examined by looking at its impact upon those brands that were founded and named more than a century ago. One can then appreciate the impact of

the name in establishing the ideas and attributes a brand builds up as a result of its interaction and relationship with the general environment and with consumers in particular. A brand is more than the name that epitomises it. Kapferer (1997) bemoaned the practice in which brands are 'often examined through their component parts' as myopic. In agreement with Kapferer, my research expresses the view that the need to place branding within a scope that reflects its importance to both buyers and manufacturers necessitates a broader and integrated approach to the formulation, implementation and evaluation of branding strategy. The strength of this approach is well summarised by Gardner and Levy's (1955, p.35) assertion that:

> A brand name is more than the label employed to differentiate among the manufacturers of a product. It is a complex symbol that represents a variety of ideas and attributes. It tells the consumers many things, not only the way it sounds (and its literal meaning, if it has one) but more important, via the body of associations it has built up and acquired as a public object over a period of time

2.4.5. Advertising and Brand Communication

Advertising is any paid form of communication by an identifiable sponsor that promotes ideas, goods, or services (Burnett and Moriarty, 1998). It is regarded as one of the most important instruments of branding. Advertising tends to influence consumers' attitudes to brand. Advertising is also regarded as a major (see for instance Aaker, 1996) determinant of consumer perception of brand. As an instrument of branding, the role of advertising includes that of informing and making value propositions to consumers about a brand. Advertising also serves as a means of creating and increasing brand awareness. In fact, various empirical studies (e.g. Aaker & Biel, 1993; Byfield and Breese, 1994; Karla and Goodstein, 1998) report positive relationships between advertising and the strength of consumer brand attitude.

Doyle (1989) identified the function of advertisement as that of providing a means of enhancing the brand communication mix by speeding up the process of consumer brand awareness. Advertising facilitates brand attitude formation by generating interest in a brand. It communicates brand value propositions offered to the consumer (Aaker, 1996; Ambler, 1996) by linking ideas and attributes to the brand. This linkage is crucial to the relationship between brand and consumer, because it is the ability of

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the brand to communicate ideas and attributes effectively that influences consumer brand attitude formation. Adverts may also function as perceptual stimuli for appealing to a specific aspect of consumers' taste and their notion of self-value.

Although brand usage experience also influences consumer brand attitude, research on consumer learning suggests that thematic advertising and other marketing communication messages do affect what consumers learn from usage experience (Hoch and Deighton, 1989; Tybout and Scott, 1983) and similarity of features (Tversky, 1977). Figure 2.6 depicts the advertising role in the brand consumer relationship.
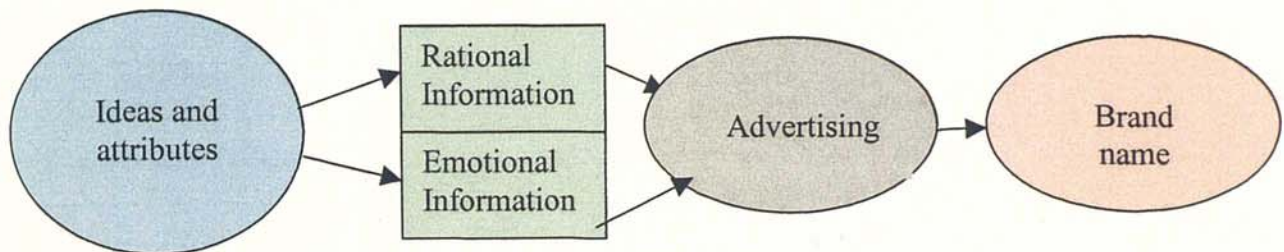
Figure 2.6 Linking Brand with Brand Propositions through Advertising

The cost of advertising as reflected in the huge budget required to execute a successful campaign underlies the need for brand to justify the spiralling cost of advertising. This need actually influenced the initial works on brand equity as the advertising community sought to identify the contribution of advertising to the financial performance of firms through branding (see for instance, Barwise, 1993). In the current climate, media fragmentation has led to the need to examine advertising effectiveness and its organisation in relation to the rest of marketing communication. This issue clearly linked brand advertising to other forms of marketing communication.

In economic terms, advertising serves as a signalling cue to expose unrecognised benefits and value to the consumer. In many industries, "signal of values are as important as the actual value created in determining realized differentiation" (Porter,

1985, p.39). This idea is expressed further by Penrose (1995, p.81) as follows:

> [When] one considers the efficiency with which market specialists using psychological and sociological information and techniques developed in universities and elsewhere, are learning to influence consumers...one almost wonders [if] in time the whole of the economists' theory of the market will not have to be completely reversed.

One could surmise that consumers' acceptance of the ideas and attributes that a brand represents determines the success of firms in a competitive environment. Consumers may not know a brand unless it is favourably presented to them as a credible and satisfying idea for whatever needs and wants the brand is meant to serve. Advertising communicates the existence of a brand, adding information to what is already known, or suggesting a new application. It therefore enables consumers to know, remember and select a brand that fulfils their needs and wants; reflects an individual's reality and their notion of self worth.

The preceding arguments emphasise that advertising is crucial to the brand consumer relationship. However, advertising is also an essential part of integrated marketing communication. Integrated marketing communication (IMC) is defined as:

> A concept of marketing communication planning that recognizes the added value of a comprehensive plan that evaluates the strategic roles of a variety of communications disciplines—for example, general advertising, direct response, sales promotion, and public relations—and combines these disciplines to provide clarity, consistency, and maximum communications' impact (through the seamless integration of discrete messages). (Batra, Meyer and Aaker, 1996, p. 71).

Given the linkage of individual elements within IMC with brand, there is a recent argument that the whole of integrated marketing communication strategy should effectively revolve around the brand itself. For instance, Schultz (1998) argued that an effective marketing communication should revolve around brand because:

> If we consider what the various communication elements can or will do singly or in combination to increase or enhance brand value to all parties, then integration becomes normal...The integrating element has been there all along. It's the brand, and it seems to me the sooner we start thinking about brand communication rather than the various functions, the faster we will be able to really integrate the firm and all the diverse elements (Schultz, 1998, p.9)

IMC facilitates the communication of consistent ideas and attributes of a brand as the key output of a firm's economic activity. Therefore, a strong and consistent message is imperative for a brand to effectively communicate with the consumers. Integrated communication also reinforces other extrinsic cues such as packaging, colours and price. These external cues influence consumer attitudes towards brands. Brand communication also reinforces distinctiveness and reduces product parity perception among brands. By communicating this distinctiveness, the brand's uniqueness and points of differentiation are highlighted by attaching specific information to the brand.

In conclusion, this section examines various instruments that enable and facilitate the implementation of branding strategy. The implication of the foregoing discussion on the instruments of branding is that they are all important to the process of creating and nurturing a brand. Trademark and patent protection ensures that only those with rights to a particular trademark benefit from it and that third parties such as counterfeiters and those 'passing-off' with me-too brands do not infringe upon those rights. Brand communication is espoused as an important aspect of facilitating and maintaining consumer relationship with a brand. It is also explained as an important element in clarifying and aiding the consumer brand attitude formation process. Finally, the need for consistency and integration among these instruments is suggested as an important factor as to why these instruments are worthy of examination in their own right.

2.5. BENEFITS OF BRANDING STRATEGY

In discussing the benefits of branding strategy, it is prudent to distinguish between its benefits to firms and its benefits to consumers. I will discuss the nature of benefits that both consumers and firms in turn derive from brands. While I do not wish to suggest that the benefits discussed below are the only benefits of branding strategy to both consumer and firms, they are some of the most important ones. The benefits discussed here also represent those that provide a profound linkage between the meaning of brand and the implication of brand definition for both consumers and the brand owners. The benefits of brands to consumers and manufacturers are examined in turn below.

2.5.1. Benefits of Brand to Consumer

Brands serve a number of functions for the consumer. They provide a strong assurance of quality and reliability, thereby reducing various types of risks that consumers may be exposed to in buying an unknown commodity. Apart from these functional roles, brands also play a number of psychological roles in their relationship with the consumer. Brands also enable the consumer to shop with confidence and specify unerringly which brand matches their personal wants, needs and expectations. Furthermore, brands serve as a specific indicator or 'route map' that facilitates their decision making process in the face of a huge number of ranges and alternatives available in a competitive market. These benefits are integrated and discussed under three key headings in this thesis. These are: brand as an expression of self, risk reducer and as a heuristic or simplifier that enables them to make simple rules of thumb on why, how and when to purchase a particular brand.

2.5.1.1.   Brand as an Expression of Self

In the global economy of post-modern societies, consumption activity is not merely a fulfilment of want and need; it is also an expression of self in which brands seem to serve as iconic representations of consumer values and an image of self. This role of brand as an embodiment of self represents a crucial link between a firm and the consumer, for whom a firm must create value in order to maintain its competitiveness and profitability. Brands are increasingly important as the link that hooks the product and services in the consumer's mind. However, a brand with a large share of mind does not necessarily translate into a share of the market (see for instance, Trout and Ries, 1972; Trout, 1999). A large share of mind is a trait that is common to strong and successful brands. This represents a crucial source of future economic income for the firm.

2.5.1.2.   Brand as Risk Reducer

Elsewhere above (section 2.4.4.) an argument was presented that the brand name serves as the medium through which a brand's value propositions are presented to the consumer. The name of a brand could summarise the totality of information that a buyer has about a brand. It serves as a reminder of what is stored at both the conscious and subconscious level. In this sense, brand acts as a shorthand device that enables the

quick recall of information that sums up most of what the consumer knows and has experienced about the brand. This serves to speed up the purchase decision and reduce the risk of making the wrong decision. The consequences of 'bad buying' may not only translate as economic loss but may also be accompanied with psychological loss. This is particularly important, as the consumer seems to have a distinctive way in which a branded article may be used to express one's self. For instance, a favourite dress washed with a bad detergent could create an unimaginable distress beyond any possible physical damage to the clothing item. The consequences of such a loss may be greater for the brand, particularly as the consumer tends to let it be known to many people when such a disaster occurs. Table 2.2 which is adapted from Solomon (2001, p.267), depicts five types of perceived risks, buyer types most sensitive to them, and purchases that are most sensitive to the risks.

TYPES OF PERCEIVED RISKS	BUYERS MOST SENSITIVE TO RISK	PURCHASES MOST SENSITIVE TO RISK
Monetary Risk	Risk capital consists of money and property. Those with relatively little income and wealth are most vulnerable.	High-ticket items that require substantial expenditures are most subject to this form of risk.
Functional Risk	Risk capital consists of alternative means of performing the function or meeting the need. Practical consumers are most sensitive.	Products or services whose purchase and use requires the buyer's exclusive commitment are most sensitive.
Physical Risk	Risk capital consists of physical vigour, health and vitality. Those who are elderly, frail, or in ill health are most vulnerable.	Mechanical or electrical goods (e.g. vehicle or flammables), drugs and medical treatment, and food and beverages are most sensitive
Social Risk	Risk capital consists of self-esteem and self-confidence. Those who are insecure and uncertain are most sensitive.	Socially visible or symbolic goods, such as clothes, jewellery, cars, homes, or sports equipment are most subject to social risk.
Psycho logical Risk	Risk capital consists of affiliations and status. Those lacking self-respect or attractiveness to peers are most sensitive	Expensive personal luxuries that may engender guilt; durables and services whose use demands self-discipline or sacrifice are most sensitive

Table 2.2 Five Types of Perceived Risks and those most Sensitive to Them.

2.5.1.3.   Brand as Heuristic Mental Shortcuts

An underlying assumption as to why consumers seek to reduce risks in buying is that each choice involves both positive and negative consequences for them. Consumers, therefore, seek to resolve the conflict between benefits, gains and risks of a purchase decision. Consumer behaviour research suggests that buyers solve this problem through integration processes for evaluating choice alternatives. These are formal integration strategies and heuristic procedures (Peter et al, 1999; Srinivasan and Ratchford, 1991). Formal integration strategies involve compensatory and non-compensatory models. However, Solomon (2002) suggested that people do not

actually perform complex mental calculations each time they have to make a purchase decision. Instead they are more likely to employ a heuristics procedure as a simple evaluation procedure in making a purchase decision. Heuristic problem solving involves using simple rules of thumb rather than any highly formal rules. A heuristics process facilitates problem solving through our process of using some dimensions that are known to us, as substitutes for inferring various others (Srinivasan and Ratchford, 1991). This serves as a shortcut to more extended information solving that leads to more speedy decisions (Solomon, 2002). Peter et al (1999) observed further that:

> It seems that consumers rather build up integration processes in such a way that they invoke a series of simple, flexible rules and combine them to an integration process tailored to the specific situations. (Peter et al, 1999 p.153).

These simple rules are those that consumers formulate based on things such as product signal, market beliefs, country of origin and brand.

Brand functions as heuristic for the consumer in making purchase decisions. People form preferences for a favourite brand based on previously learned information from various sources. This helps in facilitating the process of making a choice each time consumers need to buy a product. A brand name may serve as heuristic for what consumers know about the company that manufactured it, the nature of the product, the differential or uniqueness of the brand and the benefits that the brand offers them.

2.5.2 Benefits of Branding to the Firm

Branding confers many advantages on firms. Firstly, brand enables its owner to communicate with the consumer directly. It is a fact that consumers never really have direct dealing with brand manufacturers because their purchases are made through the retail and distribution channels. However, brand facilitates and creates awareness of its owner in the public mind as an embodiment of a firm's output. By facilitating direct communication between firms and consumer, brands "reach over the shoulder of the retailer" (Murphy and Hart, 1998). In a situation where a brand does not exist, retailers would have to determine a purchasing agenda and products would be commodities across categories.

Due to the fact that brands have the ability to provide uniqueness, they also facilitate the process of value negotiation between a firm and its consumer. This is because a brand enables its owner to assess a consumer's acceptability of the value of a firm's offering through repeat purchase. In a situation where consumers are not delighted by what a brand offers they simply choose alternative competitors, thereby signalling to the brand owners that its offer no longer provides the same level of value as its competitors. Brand, therefore, may facilitate the development of consumers who persistently purchase a brand over time. Over time, brands can also *"become a sort of annuity for their owners"* (Murphy, 1992, p.186), as emotional attachment and simplicity of making a regular purchase acts as a reliable source of future demand. Such dependable level of demand may facilitate and improve the economic impact of a brand on its owner which is manifested through future cash flow.

Finally, in a global economy in which interdependent, societal and ethical issues have brought the issue of corporate governance into the forefront, brand is a focal point of discussion and decision making on corporate responsibility. This is particularly relevant in light of brands such as Gap, Nike, Marks and Spencer among others facing the onslaught of societal displeasure from pressure groups and the general public at large, because of the perceived role that their brands play in many third world countries. In light of the preceding analysis, the benefits of branding to the firm are discussed under two main headings. These are, the strategic and the managerial benefits of branding to its owners.

2.5.2.1. Strategic Benefits of Branding to the Firm

Strategic benefits include the ability of a consumer to specifically identify with a brand and transfer their judgement about such a brand to the firm itself. This ability to extend brand related attitudinal perception to the brand itself represents one of the key strategic advantages to the firm. The strategic use of branding for competitive manoeuvring and signalling (Mintzberg, Quinn and Ghoshal, 1999; Porter, 1985; Trout and Ries, 1972) is also a key advantage of branding. Branding enables firms to achieve this through successful marketing strategy designed to support and nurture a brand. A successful brand in the market in turn facilitates the firm's ability to maintain an effective market presence. With such presence, innovative and creative

opportunities are better explored with a presence that is previously fixed in consumers' minds.

An example that should explain this better is in the UK retail banking and personal finance sector where the emergence of the Internet as an alternative channel of transaction to the traditional high street branches signalled a rush to create Internet brands for financial services. The reality of a 'crowded' marketing place where the volume of high quality services and products increased everyday meant that market pioneers such as Egg® financial service (owned by Prudential) was able to establish itself in peoples' minds first. In this regard, one of the fundamental functions of brands is the provision of identifications which simplifies the thought process that consumers need to go through in making a purchase decision.

The consequences of the effective use of the brand in competitive positioning plays a strategic role in competitive activities because it creates a barrier which forces new entrants to incur the huge investment required to endow a product with the unique associations, meanings and personality which differentiate it from competitors. The cost of overcoming customer loyalty (cf. Porter, 1979, 1994; Rumelt, 1997) is also an added barrier with which any would be competitors have to contend; in fact, empirical research shows that attracting first time buyers costs between 5-6 times more than strengthening an existing customer base (Peter, Olson and Grunet, 1999, p.321). Therefore, customer loyalty provides predictability that reduces the elasticity of demand. The inability of competitors to duplicate the overall impression and reputation (Grant, 1997) that a brand connotes in customers' minds is a powerful means of securing competitive advantage. This is because it effectively denies the consideration spot to the competitors. The Lex column in the *Financial Times* of 7 June 1989, succinctly surmised on this by observing that:

> The price paid by BSN for Nabisco Europe revives issues dormant since the Rowntree deal. Perhaps the Europe-wide consolidation of the food industry is relatively reality after all. Perhaps too the yawning gap between stock market and industry valuation of brands is overdue. BSN seems to be paying 27 times prospective earnings, more even than Nestlé paid for Rowntree, while United Biscuits - the closest parallel to Nabisco Europe... But like Nestlé BSN is paying twice: once to get the brands, and again to deny them to others.

Both the strategic importance of brand as a value creator and a means of creating

sustainable advantage are highlighted in the Lex column's observation. The case of Buitoni (Kapferer, 2001 p.382) that was sold for £100 million in 1985 exemplifies an instance in which BSN failed to utilise the opportunity of buying Buitoni because of the brand's prevailing economic performance and uncertain liability guarantee. The buyer, Carlos de Benedetti, however, was able to look beyond the immediate to what could be done with the Buitoni brand name. Three years later, Buitoni was again sold to BSN's rival Nestlé group for £800 million, 35 times its reported profit. Nestlé, like de Benedetti, recognised the strategic importance of the brand and how it could be put to a competitive use by exploiting and extending its strong brand name to embrace more than 100 products as an umbrella brand for ready-cooked meals. Brands become profitable after their name has been established. This is only possible because of the confidence and financial commitment made to build and enhance the market-based value with which consumers can identify. Clearly creating a successful brand requires a strategic investment.

2.5.2.2.   Managerial Benefit

The managerial benefit of branding may evolve from the strong market presence that a brand commands. Brand owners seek to extend the goodwill created by a brand in the consumer's mind to similar (or even different) product categories, particularly since everything people associate with a brand contributes to the commercial success of the firm. Managers are, therefore, well placed to build upon the goodwill that their existing brand commands in the market. This facilitates entry into a product sector that is different from the original sector associated with the earlier brand.

Managers can build upon the dominance and market presence of the 'primary' or parent brand to further strengthen the brand's market share as well as its competitive position. It is estimated that in 1988, up to 66% of successful new brands were line or brand extensions (Tauber, 1988; Aaker, 1990). Benefits may accrue due to decreased distribution costs and shared advertising. The parent brand may positively influence the image of the extended brand and vice versa. The risk of failure is also reduced when a successful brand is extended into a new product category or substitutes. Let us now consider some of the brand valuation approaches by which the benefits of

branding are measured.

2.6. BRAND VALUATION APPROACHES

There are different brand valuation methods, with each providing a unique brand value outcome. These methods can be categorised into different groups. For the purpose of simplifying the analysis in this thesis, they will be categorised into three groups. These are: the *Interbrand* method, the Barwise, et al (1989) approach, and those methods that are based on the evaluation of perceptual measures. These three are further examined below.

2.6.1. Interbrand's Approach to Brand Valuation

Interbrand is regarded as the premier brand valuation firm. It developed its brand valuation method with specific goals that serve as the basis for developing its valuation methodology. Its goals were, first, to identify an approach that combines the marketing, financial and legal aspects of a brand within its methodology. It also sought to follow fundamental accounting concepts within its approach. Thirdly, any methodology arrived at should be suitable for the regular revaluation of brands on a constant basis. The fourth goal is that its valuation method should be suitable for both acquired and home grown brands.

Interbrand's fundamental assumptions are based on a fundamental economic premise that the value of a brand is embedded in the economic return that a firm gains from it. Therefore, as in any other economic asset, brand value can be assumed to be the present worth of the benefits that will accrue in the future from a brand to its owner. In order to achieve these goals Interbrand's approach identified projected future earnings for the brand and the discount rate to adjust these earnings for inflation and risk (Birkin, 1994). Interbrand's method involves a two-step approach to its valuation method. First it identifies the actual earnings of a brand to reflect the accounting notion of 'true and fair value' and cash flow resulting from the brand earnings. The second step involves the capitalisation of the earnings by applying specific multiples to historic earnings.

Accountants have always tended to have a historical approach to their calculation (Baxter, 1993, p.1) as a means of maintaining objectivity. With these, *Interbrand* calculation reduces the possibility of adversely arriving at an unrepresentative profit for a particular period. Further factors were also taken into consideration in determining brand profits. These include elimination of private label production, profits and remuneration of capital. Brand earnings are therefore calculated by subtracting specific quantities from brands' sales. The quantities subtracted are:

- Costs of brand sales
- Marketing costs
- Variable and fixed overheads (including depreciation and central overhead allocation)
- Remuneration of capital charge calculated as a 5% to 10% rental charge on the replacement value of the capital employed in production
- Taxation

From this, *Interbrand* determines the profit attributable to the brand alone and adjusts the brand earnings.

Interbrand adjusts brand earnings using seven weighted dimensions to determine the strength of a brand. They conduct an in-depth assessment of brand strength through a detailed review of each brand. This review is based on a brand's positioning, the market in which the brand operates, the nature of competition, past performance, future plans, risks to the brand, and many others (Murphy, 1992). The strength of the brand is a composite of seven weighted factors, each of which is scored according to clearly established and consistent guidelines.

In fixing the multiples to be applied to the brand strength score, Murphy (1992, p.194) noted that the closest available analogy to the return from a notional perfect brand is the return from a risk-free investment. Murphy went further to say that the highest multiple that could be applied might vary from business to business and industry to industry. The brand strength score is then converted to an earnings multiple to be used against the brand related profits. Table 2.3 highlights the seven dimensions upon which the Interbrand measure of brand financial strength is based. The scores from these seven dimensions are expressed as a percentage figure. The percentage total is

known as the 'brand strength score'.

Dimensions	Maximum Score
1. *Leadership*. A brand that is a dominant force in its market or market sector with a strong market share is considered to be a more stable and valuable asset than a brand lower down the order. Brands that influence their market and resist competitive inroads score high on leadership.	25 points
2. *Geographic spread*. Brands having strong international acceptance and appeal are deemed stronger than national or regional brands. Significant investment will have been incurred in the geographic development of such brands, and they are less susceptible to competition; hence they are more robust and stable assets.	25 points
3. *Stability*. Long-established, successful brands with evidence of consumer loyalty, which have become part of the "fabric" of their markets are afforded a high score.	15 points
4. *Market*. Brands in markets such as food, drinks and publishing are in most (but not all) cases stronger than brands in technology-driven (electronics) or highly fashionable (apparel) industries since these markets are more vulnerable to technological or taste changes. A brand in a stable but growing market with strong entry barriers will thus score highly.	10 points
5. *Trend*. The overall long-term trend of a brand is a measure of its ability to remain contemporary and relevant to consumers and hence retain its value.	10 points
6. *Support*. Brands receiving consistent investment and focused support are viewed as having a stronger franchise than those in which there is only sporadic investment. The amount and quality of brand support are equally weighted.	10 points
7. *Protection*. The strength and breadth of the brand's trademark protection are critical in assessing its overall strength. If the legal basis of the brand is suspect, it may not be possible to apply a value to the brand at all.	5 points
Total	**100 points**

Table 2.3 Interbrand's Dimensions of Brand Strength

2.6.2. Separability and Brand Valuation

The Institute of Chartered Accountants in England and Wales (ICAEW) commissioned the London Business School to examine the underlying marketing and financial issues relating to the valuation of brands for balance sheet purposes. The ICAEW/London Business School report (Barwise, Higson, Likierman, and Marsh, 1989) provided the basis for another valuations approach to that of *Interbrand*. Following the valuation of RHM's brand by *Interbrand* in 1988, the report by ICAEW/LBS argued that:

> The present flexible position…is potentially corrosive to the whole basis of financial reporting and that to allow brands—whether acquired or home grown—to continue to be included in the balance sheet would be highly unwise (Barwise et al, 1989 p.32).

Barwise et al's report agreed that brand valuation may have an important role to play in brand management. However, they raised specific and identifiable objections to the valuation of brands for balance sheet purposes on several grounds. These objections were that:

- Balance sheets do not purport to be a statement of value
- There is no general agreement on valuation methods
- Brands may not be truly separable assets
- The precise asset being valued is uncertain
- The estimation and valuation of future profitability presents severe problems
- All brand valuations are necessarily partly subjective so are likely to fail accountants' test of 'reasonable certainty'

But the report led to a major debate on brand valuation for many years. While the Accounting Standard Committee (ASC) welcomed the above conclusions of the report, many brand owners and partners from many accounting firms disagreed with some of the conclusions of the ICAEW/LBS report. Although the report also met strong disagreement from academics and accounting firms, it is important to note that the Marketing Science Institute has adopted its general conclusions on brand equity and its valuation. Let us now consider the method proposed by Barwise et al. This method is based on the process of separability and valuation.

2.6.2.1.   The ICAEW/London Business School Method

The Institute of Chartered Accountants in England and Wales (ICAEW) commissioned the London Business School report on the accounting treatment of brand equity and the policy approach that ICAEW can adopt. The LBS finding was submitted and contained in Barwise, et al. (1989). Barwise et al., reported on a method based upon a sequential process of separability and valuation. The separability stage refers to the identification of a particular source of brand earning that can be isolated.   This isolated value is then used to establish brand earnings through discounted cash flow techniques or an earnings multiplier is applied. Possible brand earning isolation methods are premium price, royalty method and alternative return on assets.

2.6.2.2.   Separability Stage: Royalty and Return on Assets

A number of possible means of separating specific value associated with brands from other inputs were proposed by Barwise et al.   These include: calculating royalty payments by estimating the amount of royalty earnings that could be achieved by licensing out a brand; and, calculating an alternative return on assets by establishing capital involved in producing a brand. Earnings generated from this capital that are considered to be in excess of normal return are then used as the basis for brand valuation. The problem with both approaches revolves around the subjectivity involved in estimating and calculating possible amounts using these methods.

2.6.2.3.   Valuation Stage: Net Present Value and Discounted Cash Flow

Finding net present value involves discounting expected brand-related cash flows by calculating the discounted value it may generate in the future.   One shortcoming of this approach is the practical problem of establishing reliable cash flow estimates and identifying the appropriate discount rate (DCF). Discounted Cash Flow (DCF) is one of the most popular approaches to financial accounting performance evaluation.   In this approach, the value of a brand is determined on the basis of an estimated future earning.

Following the MSI's 1997 conference on measuring brand equity performance, Srivastava, Shervani and Fahey (1998) opined that this approach offers a more

market-based approach to brand valuation. This is because the conceptual assumption is based on the isolation and identification of incremental future earnings and capitalised incremental future earnings at a risk-adjusted cost of capital, in order to arrive at a net present value of a brand. The outcome of this estimation represents the worth attributable to a brand that its current owner may expect for the existing use (Haigh and Perrier, 1997).

The key weakness of this approach is still the separability issue. How can the brand performance be separated from other earnings that emanate from non-brand aspects of the firm's operations? Moreover, financial approaches do not guarantee an objective and verifiable estimation of a brand's future earnings. The tendency to overlook the synergistic effect between brand and possible future extension (cf. Aaker, 1996; Barwise, Higson, Likierman, and Marsh, 1990) when valuing brand is also a crucial shortcoming inherent in the financial method of estimation of brand performance.

2.6.2.4.   Significance of ICAEW/LBS Report

The Barwise et al's report is significant for two main reasons. First, following their findings that brand value does not have to be included in the balance sheet, a host of applications have been developed for brand valuation that have nothing to do with the balance sheet (Murphy, 1992). For instance, many firms (including advertising, accounting and brand consulting firms) now have their own in-house brand valuation methods (e.g. Millward Brown's *Brand Asset Valuator* available at: www.brandfinance.com/pdfs/research; Landor's *Brand Economics* and Arthur Anderson Brand Intangible Measures available at: www.legalmarketing.org/news). These non balance sheet applications play a valuable role in brand management and other areas such as valuation for brand licensing, merger and acquisition.

In fact, many more companies valued their brands for purposes such as internal accounting, mergers and acquisitions rather than for balance-sheet valuation purposes (Murphy 1992, p.185). Furthermore, Ambler (2000) found that 17% of large UK firms who employ marketing professionals incorporate brand equity valuations into their internal reporting systems (Ambler, 2000, p.5). The recent trend is for firms to report a range of measures of different aspects of brand performance and strength.

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This is to *move away from a single, inherently subjective valuation for each brand towards a range of measures of different aspects of brand strength and performance* (Ambler, Barwise and Higson, 2001, p.13). (See section **2.7** for further discussion on a range of market metrics).

Secondly, there is still no general agreement on a brand valuation method. However, the *Interbrand* approach is more widely used than others that are available in the market place. Fourteen years after the RHM valuation, the Marketing Science Institutes (MSI) and *Journal of Marketing* (JM) began linking the brand valuation approach to that of financial performance. In doing so, MSI is specifically focusing on fundamental approaches to traditional accounting systems that Barwise et al (1989) were trying to uphold. This is reflected in the MSI performance and firm value research that effectively assumed that brand valuations are necessarily partly subjective and need to be linked to 'relevant dependent variables such as net income, cash flow, ROI, ROA, gross marking and market capitalization', and so are likely to fail the accountants (see the call for papers at http://groups.yahoo.com/group/brandpractice/files/performmance.htm).

In conclusion, no single technique for evaluating brand value can adequately capture its essence. In reality, one should not expect a single technique for measuring brand value to adequately reflect the multiplicity of factors that makes a brand valuable to its owner, the customer, shareholder and others. For instance, from the perspective of the firm or the potential acquirer, elucidating brand value as depending on the current strength and future potentials of a brand is pertinent. Equally, gaining an understanding of the sources of such strength is important, but many of these sources are influenced by consumer perception and attitude. Furthermore, the elements that constitute the strength of a brand subsume so many factors. These include: the history of the brand, distribution channel, retailers, value to consumers, perceived quality, advertisement, brand association, etc. Many of these factors influence what makes a brand relevant to the consumer.

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2.7. NON-FINANCIAL ORIENTED MEASURES OF BRAND PERFORMANCE

There are various non-financial approaches to evaluating brand value. Concepts such as brand loyalty (e.g. Brown, 1953; Ehrenberg, 1966; Jacoby and Chestnut, 1977), customer satisfaction (Anderson and Narus, 1996) and brand equity (Aaker, 1991, 1996; Keller, 1993, 1998) are measures for gauging the effectiveness of branding strategy. One could infer further that because converting brand performance into financial terms depends on many factors (including the behaviour of the customer towards a brand), consumer perception is an important factor in any marketing metrics. Kokkinaki and Ambler (1999) classified such market metrics into six categories including one category for financial values (actual sales figure, profitability and gross margin). However, as brand value perception is essentially in peoples' heads, it cannot be measured in terms of specific monetary values. Therefore marketers use proxy measures of three types: inputs (marketing activities such as investment), outputs (i.e. customer behaviour such as market share) and intermediate measures (such as awareness, perceived quality etc). Ambler and Riley (2000) identified 19 market metrics that are widely used by firms for internal evaluation of marketing performance.

In another report by ICAEW and London Business School, Ambler, Barwise and Higson (2001) opined that measures of marketing performance are by implication those of brand performance. One could interpret the importance of this juxtaposition of brand and marketing performance on the basis that brand represents a key link between firms and its customer and other entities. Furthermore, brand is also an important marketing practice that facilitates the process of linking and establishing firms' output in the market place. Some widely used metrics reported by Ambler and Riley (2000) are depicted in Table 2.4.

Performance Category	Market Metrics
CONSUMER INTERMEDIATE	Awareness Perceived quality Consumer satisfaction Relevance to consumer Perceived differentiation Brand/product knowledge
Consumer Behaviour	Number of new customers Loyalty/retention Conversions
Trade Customer	Customer satisfaction Number of complaints
Relative to Competitor	Relative consumer satisfaction Perceived quality
Innovation	Number of new products Revenue of new products Margin of new products
Financial	Sales Gross margins Profitability

Table 2.4 Widely Used Market Metrics for Measuring Brand Performance

Behavioural measures of brand performance such as loyalty, customer satisfaction and consumer brand equity are indicators of brand performance in the *strategy context*. The significance of these measures stem from the expectations that a firm will prosper with a clear business model based on brand performance (Ambler and Kokkinaki, 1999). These measures form part of the quantification of both the objectives and the means to those objectives. They are strategic milestones by which progress can be assessed (Ambler et al, 2001, p.18). Given this importance they are likely to play a more significant role in the business policy of the firm.

Behavioural measures have significant implications for competitive policy such as branding for two reasons. First, the core of marketing activities arguably revolve around the brand (Baker, Hart, Black and Abdel-Mohsen, 1986). The success of a *product* is greatly dependent on the strength of a strong brand around which such a product can be effectively introduced to the market. The *channels* (representing a place in the second of marketing's four P's) of distribution, particularly retailers, demand a huge amount of exposure through advertisement as a pre-condition before a new product can be added to their existing lines. Advertisement and *promotional* activities are also directed at the brand while the *price* that a product can command in the market place is greatly influenced by the strength of the brand.

Of all the factors represented by Ambler and Riley (2000) only those that are directly relevant to consumer brand equity are discussed in this thesis. These are brand loyalty consumer satisfaction, and brand equity. Two key concepts of brand loyalty and customer satisfaction are discussed in this chapter while brand equity is one of the concepts discussed in chapter three.

2.7.1. Brand loyalty

Over several decades, many marketing practitioners and scholarly studies have centred on the topic of brand loyalty. Among these are the work of Copeland (1923), who hypothesised that consumers may have an extreme attitude which may have a strong effect on their behaviour towards a particular brand. Copeland refers to this phenomenon as *brand insistence*. Brand insistence is described in terms of recognition, preference and insistence. He suggests an operational criterion based on exclusive purchase criterion for measuring brand loyalty.

Others such as Brown (1952, 1969, 1972) and Jacoby and Chestnut (1978) have built upon and contributed to brand loyalty studies over the years. From consumer behaviour to marketing strategy, a lot of research has been done in the quest for a better understanding of consumers' repeat purchase behaviour. The reasons for this are not hard to comprehend. First, a high number of customers making regular purchases of a brand strengthen its market share and provide a stable growth for the

manufacturer. This reduces the associated marketing costs because it costs less to retain customers than to attract new ones. Also, the loyalty of existing customers hinders possible entry by competitors into the same customer base. It may also provide brand owners with crucial lead-time to respond to competitive actions. Hence, a brand with a high level of loyal customers makes marketing strategy more efficient (Jacoby and Chestnut, 1978, p.1).

The popularity of the concept of brand loyalty makes it seem deceptively simple, but it is a complex topic plagued by the debate of whether to conceptualise it as a cognitive or behavioural phenomenon. In an extensive review of over 300 publications on brand loyalty, Jacoby and Chestnut (1978) noted the general lack of conceptual agreement among researchers. This is made even more difficult by the confusion of empirical description with conceptual definitions. However, the fundamental issue is whether to conceptualise the phenomenon in terms of consumer behaviour (repeat purchase), or in terms of cognitive internal commitment to purchase and repurchase a particular brand.

The differing sides of the issue seem reconciled with Jacoby and Olson's (1978, p.80-81) definition of brand loyalty as:

> ...The (1) biased (i.e. non random), (2) behavioural response (i.e. purchase), (3) expressed over time, (4) by some decision-making unit (5) with respect to one or more alternative brands out of a set of such brands, and (6) is a function of psychological (decision making, evaluative) process.

This conceptual clarity diverted research efforts in a different direction culminating in areas such as store loyalty, information processing (Howard, 1977; Payne, 1976; Tybout and Scott, 1983) and brand attribute interdependencies (Aaker and Keller, 1990; Farquhar and Pratkanis, 1993).

Aaker (1991) proposed brand loyalty as a second order factor of brand equity. This is based on the premise that consumers' repeat purchase of a brand represents a strong preference for such a brand. This strong preference held by consumers amounts to positive brand equity. However, it is possible for someone to continually purchase for reasons of convenience. Reasons of convenience include situations such as close

proximity of outlet, non-availability of alternatives, persistent out-of stock situations and frequent promotional activities. All of these situations may not necessarily involve a customer having any strong preference for the brand being purchased. This behavioural sense of brand loyalty conforms with the "double jeopardy" phenomenon in which brands with large market shares on extensive trade/channel networks and promotional advertising are more likely to attract loyal customers. (I discuss the role of brand loyalty in brand equity further in section 3.5.2.2).

2.7.2. Customer Satisfaction

In discussing customer satisfaction with a purchase, three questions are of great importance. First is the question, what makes people want to buy a particular brand rather than its competitor? Secondly, what are people buying and, thirdly, what are they likely to buy in the future? These questions are important to a firm's competitiveness and even more crucial to its survival.

Consumer satisfaction is a starting point for answering the question of what makes people want to buy a particular brand repeatedly rather than its competitors. Customer satisfaction represents a person's feelings of pleasure or disappointment resulting from an actual comparison of a specific brand's perceived performance to the prior expectation of how such a brand would perform (Kotler, 1997, p.40; Andersen, Fornell and Lehmann, 1994)

Customer satisfaction is, therefore, a function of perceived performance and expectations (Fornell, 1992). If performance falls below expectations, it results in dissatisfaction. If performance matches with expectations, satisfaction is expected. And if the performance exceeds expectation, higher satisfaction and delight is experienced (Kotler, 1997). For a brand to have higher equity, it must satisfy customer expectations of it.

However, meeting customer expectations alone will not suffice as a basis for brand evaluation. Nor can customer satisfaction stand - alone as a measure of brand performance. A recent example that epitomises the danger of relying on customer

satisfaction is that of Levi Jeans. Levi 'suddenly' found itself out of favour with its core customer in the year 2000 because consumers no longer regarded its core brand - denim jeans- as a 'must have' brand, even though customers are still very satisfied with the brand itself. The trend moved away from jeans as a whole. With globalisation and the growth of the Internet, MTV and CNN, consumer trends move, not just locally or regionally but globally and with breathtaking speed. In other to match consumption norms, brands need to keep up-to-date through innovations and inventions. Satisfaction as a measure does not address this important issue.

A proactive identification of what people are buying requires knowing how customers form their expectation of brand. Their value perception, prior experience and the propositions that a brand offers influence how customers form their expectations. The hyper-competitive economic environment dictates that a brand must offer more perceived unique attributes at an appropriate value. Consumer brand equity measure is targeted more at the level of building value propositions to satisfy and delight the consumer. But while satisfaction is a primary requirement for building brand equity, satisfaction alone is not enough to create and sustain a relationship upon which competitive advantage can be built (Dower, 1996). Achieving customer satisfaction requires building a strong brand and making the brand relevant as consumption trend, innovative and competitive activity changes the nature of what makes the customer satisfied with the brand in the first instance.

2.8. CONCLUDING REMARKS

This chapter examined the nature of brand and its meaning by looking at its multifaceted conceptualisation in published literature. This analysis concludes that brand means different things to people who are involved with it because each person's relationship with a brand emanates from different parts of the whole brand. Therefore, defining the concept as a singular entity may alienate those who do not share the basis for such a definition. Following the analysis of the meaning of brand, the instruments of branding (those 'tools of the trade' that enable and facilitate firms' creation of a brand) were examined as important implements that facilitate the creation and nurturing of a brand.

In explaining that branding is a competitive strategy, the evaluation of its success as a business policy was analysed. This was done by assessing its strategic and managerial benefits to the firm as well as the benefits that the customer derives from buying a brand. The benefits derived by both brand owners and customers were explained as the basis for the success of any branding strategy. While both brand owner and customer gain benefits from branding strategy, their mutual benefits cannot be evaluated with the same measures. Hence, different measures of brand valuation were examined and their importance in the quest for appropriate evaluation of brand performance highlighted. These measures were divided into financial and non-financial oriented, to facilitate and simplify the discussion of the differences between them as well as the link that exists in their usage as marketing metrics.

In concluding the analysis of the concept of brand, it seems appropriate for one to surmise, in agreement with scholars such as de Chernatony (2001), Frank (2001) and Kapferer (2001, p.3) that a brand is a relationship, a thing of nuance and complexity, of irony and evasion. It is not some top-down affair, or message to be banged into consumers' heads. It is also a conversation, an ongoing dialogue between firms and the consumer.

REVIEW OF BRAND EQUITY LITERATURE

3.0. ORGANISATION

This chapter is divided into seven sections. Section **3.1** is a general introduction to the chapter. Section **3.2** outlines the historical development of consumer brand equity. This section examines the nature of the normative debate on the topic, and it also analyses the conceptual explanations offered for the concept in the literature. In section **3.3**, the nature and types of brand equity are examined. Section **3.4** examines the measurement approaches for CBE offered in the scholarly literature. Section **3.5** focuses on the issues of concept definition, determinant factors and empirical findings. Section **3.6** offers a summary of the review, highlighting the renewed interest in brand equity. Finally, **3.7** concludes on the need for a new approach to consumer brand equity.

3.1. INTRODUCTION

The topic of *Brand Equity* continues to receive considerable attention. In recent times, various scholars have been examining the topic as a consequence of branding strategy (Murphy and Hart, 1998; Schultz, 1999). Others have also been looking at its financial implication for firms (Ambler, Barwise, and Higson, 2001; Haigh, 1996; Kapferer, 2001). Researchers are also examining the role of *Brand Equity* in marketing communication (Keller, 2001; Schultz, 1999), and its consequences for building customer based equity (Keller, 2001a). These studies reveal a number of important findings from both empirical and normative perspectives.

3.2. BRAND EQUITY AS A SCHOLARLY TOPIC: AN OVERVIEW

Barwise (1993) traced the earliest usage of the *Brand Equity* (BE) construct[1] to its adoption by advertising practitioners in the USA. The concept of BE entered the mainstream of marketing research in the latter part of the 1980's (e.g. Tauber, 1988; Farquhar, 1989). The entrance of BE into the academic dictum was aided by the fact that the Marketing Science Institute designated the concept as an area of special research interest in the mid-1980's (Leuthersser, 1988). Others such as Murphy (1990), Aaker (1991) and Kapferer (1992) also published their works on the subject of brand and brand equity.

The emergence of brand equity in marketing literature is not coincidental. It is a reflection of the need for businesses to safeguard the accumulated investment they had made in pursuing branding strategy. After years of 'look-alike' and 'over-copying' by 'me-too' brands, brand parity eventually became a reality in many product categories. Saunders (1990) describes 'me-too' brands as those that were produced to copy innovative moves from competitors. Brand parity refers to consumers' belief that there are no significant differences among competing brands in the same product category (Agres and Dubitsky, 1996; Alsop, 1989).

One clear effect of 'me-too' brands is that consumers cease to perceive any clear-cut differences between competing brands, thus leading to a brand parity perception. Marketers have had to struggle with this implication for a long while. For instance, empirical research by Alsop (1989) found that 70% of consumers worldwide believe that brands from certain FMCG categories such as paper towels, soap and crisps are all 'alike'.

This consumer brand parity was compounded by the worldwide recession of the early 1980's that necessitated the need for re-appraising the brand management practices that were widespread before the stock market crash of 1987. The strong doubts

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[1] According to Kerlinger and Lee (2000, p.40) a construct is a concept. It has the added meaning, however, of a concept that was deliberately and consciously invented or adopted for a special scientific purpose.

expressed by consumers about the ability of large companies to produce quality brands have since been followed by the total quality orientation to reinforce consumers' trust in manufacturers' brands.

Furthermore, the enormous budget required for creating, launching and maintaining new brands and the limited chances of succeeding in the market place (Jones, 1989, p.4; Murphy, 1990, p.20) ensure the need for the evaluation of brand equity as a benchmark for assessing brand performance. Businesses were quick to choose the option of buying an existing brand and/or leveraging their strong brand via brand extension.

As extending an existing brand became a more secure means of reinforcing the company's brand portfolio, BE became more popular. The wave of acquisitions, mergers and take-over activities that followed, as companies jostled for position in readiness for the EU single market in 1992 (Kapferer, 1992, p. 9), confirmed brand equity as an established marketing topic. This further increased the need for the evaluation of consumer brand equity as a benchmark for assessing brand performance. A follow up conference on the issue of marketing performance by the influential Marketing Science Institute (MSI) in 1997 underscored brand performance measurement as an imperative for businesses. Instinctively, marketers are keen to exploit ways of leveraging consumer brand knowledge across different product categories.

Early studies on brand equity were exploratory in nature (Farquhar, 1989), reflecting the initial need for a conceptualisation of the concept. From this starting point scholarly works later emerged addressing both the conceptual and measurement issues. Meanwhile practitioners' market research concentrated on the development of proprietary in-house measures of brand equity for valuation purposes. These are such customised techniques of brand valuation as 'brand equity tracking' devised by consulting boutiques. Typically, these focused mostly on the operations associated with measurements designed to achieve a single monetary value. Notable among these are: Total Research's EquiTrend; Young and Rubican's Brand Asset™ Valuator, Interbrand's Brand Strength Monitor and Landor Brand Economics.

Although brand extension studies dominated the vast majority of BE research in the scholarly literature, a vibrant and provocative debate intensified across disciplines (see for instance, Allen, 1989; Barwise, et al, 1989, 1990; Baxter, 1993; Ehrenberg, 1993; Murphy, 1992). This debate influenced the nature of the normative debate on the topic of BE and research orientations.

3.2.1. The Normative Debate on Brand Equity

In common with any new field of study, there were initial doubts about the viability and the necessity for studying the construct of *Brand Equity*. Many regard the construct as indistinguishable from constructs like brand loyalty, which had been studied for the past thirty years. For instance, Barwise (1993) argued that brand equity should not, at that stage in its development, be regarded as distinct from that of brand loyalty. This position echoed a similar view by Ehrenberg (1993), that concepts such as BE (of which brand strength is a determinant factor) cannot be regarded as any meaningful concept for operational purposes.

In the same vein, but to a lesser extent, others expressed challenging and engaging views on BE. For instance, Feldwick (1996) critically appraised the concept of BE and concluded that factors such as brand image, strength and associations that tend to be treated as constituents of BE, have dissimilar components. Feldwick (1996) further opined that the differences between these various dimensions of brand equity present an operational problem that makes it difficult to accept BE as a singular concept for measurement purposes. Factors such as brand image and brand awareness should, therefore, be regarded as measures of differing phenomena rather than factors of BE.

The key contentions here are that BE would still have been researched if the term BE was never coined (Barwise, 1993, p.98). Ehrenberg viewed this lack of singular definition (Ehrenberg, Barnad and Scriven, 1997) as evidence that brand equity is not different from other well-established concepts such as brand loyalty and brand image. In scholarly terms, this represents a legitimate basis for doubting the viability of BE as a concept that can be objectively conceptualised, measured and distinctively demarcated within a particular body of knowledge. However, even if BE is difficult to define it

certainly has empirical manifestations in the market place. This empirical manifestation is apparent in consumers' fascination with certain brands as a reflection of 'self'. This fascination is translated into a strong preference and propensity to purchase.

The issues of the conceptual legitimacy of brand equity constitute a major challenge to a research of this type. Explanations and analysis as well as supportable empirical findings from areas such as brand image (e.g. Gallup, 1974; Oglivy, 1963; Joyce, 1963, 1971) and brand loyalty (Ehrenberg, 1971; Jacoby and Chestnut, 1978) point to promising new avenues of inquiry, and they provide more than usual background interest to this researcher.

3.2.2. Conceptualisations of Brand Equity in the Literature

In spite of the amount of research on BE within the past decade, defining the concept is still a contentious issue in marketing research. However, controversy over definition is not unique to brand equity. Other constructs such as brand loyalty (BL) generate controversial stands on the question of definition as well as on the relationship between the empirical and conceptual explanation for BL. The legacy of this BL controversy is evident in studies such as Ehrenberg (1988), Chestnut and Jacoby (1978) and Woodside and Clokey (1975). The problem of definitions is a problem that most marketing phenomena have in common with other concepts in the social sciences.

However, the lack of a single definition (whether operational or conceptual) does not, on its own, belie the reality of the impact of BE on businesses. This is because, as is often the case in social science, some concepts may be difficult to define because they represent empirical reality. Others may be difficult to define because currently available knowledge is not yet enough to 'typify' them. In the case of brand equity, however, the concept clearly manifests itself in reality. This is evidenced by the price that was paid to acquire well-known brands during the spate of mergers and acquisitions of the late 1980's. This generates the need for an explicitly scholarly analysis and research of the topic.

To facilitate an explicit reflective analysis of BE for the on-going investigation, this chapter examines the concept in terms of the various understandings of it in the literature. These understandings are categorised as conceptual, methodological, and the uncovering of the underlying factors for BE. Conceptual analysis explains the phenomena of BE in terms of other constructs which elaborate the interrelationships of BE with psychological notions such as consumer attitudes and perceptions. These relationships are imprecisely stated, as is typically the case in marketing and the social sciences (Churchill, 1995, p.525). This represents an attempt to encompass, in some symbolic form (usually language), the essence of what we mean when we speak about a particular concept (Jacoby and Chestnut, 1978, p.70), in this context the phenomenon of BE.

In this instance and at this earlier stage, conceptual definitions of BE are abstractions. These assumptions in turn inform theory, practice and the direction of knowledge, thereby supplying the foundation upon which analytical and insightful predictions can be made. These assumptions also inform the process of accumulating critical empirical findings about BE in a way that facilitates the communication and categorisation of the ideas behind the concept.

The conceptual framework advances hypotheses about the possible structure of BE and its dimensions. The relationship between these dimensions can only be determined through empirical research specifically designed to reliably identify and validate such structure (Pedhazur and Schmelkin, 1991). An operational definition, as an aid to constructing logical structure or establishing relationship, simply defines a concept in terms of the instrument or process used to measure it (Chestnut and Jacoby, 1978).

It is, therefore, logically valid to conclude, as do Chestnut and Jacoby (1978), that a singular definition can only be operational in nature — particularly in the early development stage of a concept. An operational definition of BE—and also of BL— is simply a detailed description of the procedures that are used to measure brand equity. As there are numerous ways of carrying out empirical research on BE, there will inevitably be differences in operational definitions. However, equating

operational definitions with conceptual abstraction inevitably creates confounding explanations. It also intensifies the apparent "weak intellectual foundations" (see, for instance, Doyle, 2000, front page folder and Grant, 1991, p.15) and the perceived lack of rigour in articulating what marketing stands for (Lynch, 1994). This also makes it difficult to explain the contributions of marketing to firms' profitability.

This juxtaposition of conceptual and empirical definitions confuses, rather than clarifies, the question of BE definition. It also generates a huge number of meanings for BE. The complexity that this creates for BE definition is matched only by researchers' disagreement as to what is the essence of BE and what constitutes the dimension upon which analytical measurement should be based. In reality, conceptual definitions of brand equity alone yield no data for verification and modelling, and operational definitions cannot exist without the inception of conceptual definitions. The apparent mutuality of the two definitional approaches necessitates that BE should be defined in abstraction, separate from the analytical procedure or instrument being used for its measurement.

3.2.3. Defining Brand Equity

There are many empirically identified underlying factors for BE in the literature. This reflects the findings from research activities that followed the MSI declaration of BE as a topic of special research interest in 1988 (e.g. Kapferer and Laurent, 1988; Leuthesser, 1988; Pecorella, 1988). An integrative framework linking the various constructs, facets and dimensions of brand equity is provided by Srivastava and Shocker (1991), who also opined that areas regarded as 'facets and dimensions' in brand equity are different but equally important issues requiring necessary focal and specific attention. Srivastava & Shocker (1991, p. iii) listed these facets and dimensions as:

(1) perceptual constructs (such as evoked set formation, information search, perceived quality and risk; (2) marketplace behaviours (brand loyalty, switching, willingness to pay price premiums, usage rates); (3) marketing strategies (e.g., brand extensions); (4) industry conditions (e.g. competitive intensity, stage of product life cycle; (5) performance measures (price and market share premiums, vulnerability); (6) financial valuation (e.g., the "value of a customer" given usage rates, price premiums, retention rates at the individual and segment levels, profitability and risk at the aggregate and market levels).

Others define brand equity by focusing on the specific link between brand, product, branding instruments, and firms' customer relationship. For instance, Aaker (1991, p.15) defines brand equity attributes, as "*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 and/or to that firm's customers*". Aaker (1996) further developed brand assets to include ten assets that are based on brand loyalty, name awareness, perceived quality, and brand associations. It also includes other brand assets like patents, trademarks and channel relationships. Table 3.1 presents some definitions of BE that stresses the value of brand to the firm.

Definitions	Authors
The value of a brand name is based primarily on its superior ability to generate cash flow compared to other brands in its market	Brasco (1988)
BE is incremental cash flow resulting from the product with the brand name versus that which would result without the brand name.	Shocker & Weitz (1988)
BE is a function of a brand's current and expected performance characteristics, and a brand's strengths and weaknesses	Mahajan et al., (1989)
The equity of a brand name is the value that is added by the name and rewarded in the market with better profit margins or market shares. It can be viewed by customers and channel members as both a financial asset and as a set of favorable associations and behaviors.	MSI (1989)
BE is a set of assets and liabilities linked to a brand by its name and symbol that add to or distract from the value provided by a product or service to a firm and /or to that firm's customers	Aaker (1991) p.15
The value of the incremental cash flows which accrue to a branded product over and above the cash flows which would result from the sale of a product with no brand name.	Simon and Sulivan (1993)

Table 3.1. Definitions of Brand Equity that Stress the Value of Brand to Firms

There are other factors identified as the basis for brand equity by other researchers, particularly in those earlier works (see for instance Aaker, 1991; Farquhar, 1989) where no specific distinctions were made between *brand equity* and *consumer brand equity*. However, brand equity can be defined from the perspective of the firm owning the brand, or from that of the customer whose relationship with the brand determines the nature and magnitude of brand equity accruing to the firm. From the firms' perspective, brand equity is defined as the incremental cash flow or other financial return generated by the specific use of a brand on a given product (Shocker and Weitz, 1988; Murphy, 1990; Kamakura and Russell 1993; Simon and Sullivan, 1993; Birkin, 1994). On the other hand, consumer brand equity is defined as the subjective preferences that a consumer has about a brand that cannot be explained by the objective or intrinsic content of a product alone (Srinivasan, 1979; Leuthesser 1988; Srivastava and Shocker, 1991; Aaker, 1991).

From the above exposition, a distinction is, therefore, made between *brand equity* as the financial implication of branding strategy for brand owners, and *consumer brand equity* as the customer perception that influences the propensity to purchase a particular brand. To this end, in section 3.3 the financial orientation dimensions of CBE will be examined. In section 3.4, an analysis from the consumers' perspective will be presented.

3.3. THE NATURE AND TYPES OF BRAND EQUITY RESEARCH

The nature of brand equity as a reflection of the financial implication of branding for brand owners is examined in this section. This analysis is conducted by looking at the different types of BE and issues of importance from each perspective. There are substantial numbers of normative as well as empirical research studies on brand equity. For the purpose of simplifying the analysis, BE research is grouped into two types. These are:

- Economics of brand orientation

- Brand value accounting

3.3.1. Brand Equity as Economic Value

The key objectives of research on the economic value of brand is perhaps the identification of the specific component of brand that represents the basis upon which consumers buy a brand as opposed to cheaper generic alternatives. The isolation of the impact of such a component on future revenue generation capacity for firms is also crucial. Based on this approach, Kamakura and Russell (1993), for instance, used scanner data to distinguish two components of brand equity which cannot be related to the physical attributes (or functional utility in the case of services) of the brand alone. These are quality perception (brand value) and brand associations (brand intangible value).

A similar approach is that of evaluating brand equity in terms of its individual contribution as an intangible asset to the firm. Research by Brasco (1988), Mahanjan,

Rao and Srivastava (1989), Shocker and Weitz (1988) and Simon and Sullivan (1993) are examples of this approach to BE research. A brand's economic value is said to be derivable as a consequence of current and estimated future consumer patronage, provided that the basis of a brand's appeal to consumers is maintained and constantly improved in order to keep up with such changes as taste, sizes, packaging and availability channels. In the long term, the cash flow from such sales is expected to be greater than that of unbranded or generic products. The longer the consumer loyalty can be sustained through cash flow that may not be generated by a generic product, the larger the brand equity attributable to the branded item (Shocker and Weitz, 1988).

However, the positive economic implication of branding strategy has quite often been called into question. For instance, following the 'Malboro Friday' events in April 1993, business analysts were quick to proclaim that the brand was dead, killed off by own labels and generic products that seemed to offer the same value for less money. However, the resurgence of brand as mentioned above in section 3.1 provides a positive argument for its economic impact on creating sustainable competitive advantage for the brand owner, while delivering differing types of value to its other stakeholders.

3.3.2.   Brand Accounting

Brand accounting research is the assessment of the economic value accruing to the firm that is attributable to branding strategy. The listing of such value for external accounting purposes is referred to as brand accounting (Allen, 1989; Barwise, Higson, Likierman and Marsh, 1989; Baxter, 1993). Many other researchers in accounting have commented on the need for a suitable accounting framework that is robust and capable enough to assess the effectiveness of brands as marketing assets (Birkin, 1989; Guilding, 1991; Guilding and Pike, 1994). Within this approach, different orientations have emerged. Table 3.2 highlights the basic category of research on BE relating to brand accounting.

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Financial accounting	Corporate accounting	Managerial accounting
Aaker and Jacobson, 1994; Ambler, Barwise and Higson 2001; Barwise et al., 1989; Baxter, 1993; Simon and Sullivan, 1993.	Mather and Peasnel, 1991; Andersen, 1992.	Allen, 1989; Farquhar and Ijiri, 1993; Guilding and Pike, 1991, 1994; Haigh, 1996; Kamakura and Russell, 1993

Table 3.2. Some Research From the Accounting Perspective

An important issue driving this line of research is the focus on the financial statements – the balance sheet — prepared by a firm, which were traditionally regarded as the only means of expressing and communicating a firm's underlying performance. As contained in balance sheets, such statements were primarily directed at an external audience and represented an important summary of tangible assets for the firm. However, this approach excludes other value-laden assets that are intangible in nature such as patent, trademark, brand name, etc. Although 'goodwill' is represented as a 'catchall' (see for instance Baxter, 1993) for some intangibles, it does not specify other sources of intangibles such as brand reputation and strategic relationship.

However, the role of this brand-based intangible is strategic to many firms' competitiveness. For instance, the triad of co-branding among Coca-Cola/ Macdonald/Disney World is legendary as an epitome of branding alliance. So also is that of Intel's Microprocessor brand Pentium in the PC/Laptop industry. Hence, the balance sheet as a basis for portraying a firm's resources does not address the underlying non-accounting — particularly branding — factors that actually drive a company's performance. Brand intangible assets represent one such underlying factor that the balance sheet as a financial statement for the company position does not accurately reflect. This inability to reflect the 'non-financial' determinant of corporate performance substantially undermines a firm's ability to effectively evaluate the outcome of a competitive strategy (Simmonds, 1986) such as branding.

3.3.2.1. Internal and External Accounting

In an internal accounting framework, the assessment of the economic worth of brands to firms has been modelled within two perspectives: those that are asset-based and those that are market-based. The emphasis of asset-based marketing is on the effective deployment of corporate assets to anticipate and satisfy consumer wants through branding activities. Intangible assets are strategically placed and presented as major assets, which are as valuable as the company's tangible assets. Guilding (1991) described asset-based marketing as the effective and sustainable use of corporate assets to further enhance and improve the firm's sustainable competitive advantage. Guilding and Pike (1990, 1994) represents one of the earlier published empirical works on brand asset valuation within the management accounting perspective. Their work looked at the internal accounting implications of brand valuation and their behavioural and organisation implications.

Research from the external accounting area can be divided into two distinctive sub-streams. First, there are those that centre on the balance sheet representation of brand intangible assets and its relation to existing means of identifying similar non-brand-based intangibles such as company reputations and patent rights. Following the ICAEW/London Business School's report (Barwise et al., 1989), the issue of separability and objectivity particularly dominated the research on the internal and strategic assessment of marketing assets.

Secondly, following the brand valuation debate (particularly in the UK), some of the research centred mostly on the accounting approach to brand assets. This generated numerous normative papers on what constitutes brand value (Arthur Andersen & Co, 1992) and its relationship with 'goodwill' (Baxter, 1993). Accounting frameworks evaluating brand intangibles (ASB, 1989, 1995a,b, 1996 and Power, 1990) are examples of key studies in this area. The impact of the Accounting Standard Board's 1998 promulgation on goodwill and intangible assets (ASB 1998) and the International Accounting Standards 38 and 36 on the same issue effectively concluded more than a decade of debate on brand in the balance sheet. This gave renewed impetus to brand valuation research in an effort to standardise techniques for

measuring brand intangible assets beyond the traditional accrued accounting framework for assessing brand's competitive performance. The actual valuation process provides an opportunity for internal assessment that yields brand information and a thorough means of assessing the strength, equity and reputation of a brand.

Other studies are Farquhar and Ijiri (1993), Marther and Peasnell (1991) and Simon and Sullivan (1993). Common to this group is the appraisal of the financial worth of the brand to its owner as the basis for conceptualising brand equity. For instance, Farquhar and Ijiri (1993) developed an approach based on a "momentum accounting" model. They proposed that the accounting system should focus attention on changes that occur from period to period as opposed to the normal practice of quarterly sales figures. Momentum accounting emphasises the need to reflect periodic and cumulative changes in sales volume, under a framework, which accounts for the value of brand in the long-term.

Simon and Sullivan's (1993) empirical research set out to convert the accounting concept of goodwill into a measurable way of presenting a firm's brand equity. Mather and Peasnell's (1991) study on the economic effects of brand capitalisation of brand value has capital accounting as its orientation. They found empirical support for their hypothesis that companies valuing brands have higher gearing ratios prior to brand capitalisation than similar companies who do not value their brands. The immediate impact of brand capitalisation is to reduce levels of book gearing. This type of research serves as the basis for assessing mergers and acquisitions, taxation, price negotiation and strategic alliance. It also serves as a management information tool as well as the basis for determining strategic investment. Simon & Sullivan (1993) and Farquhar & Ijiri (1993) proposed measurements based on the incremental cash flow that accrues to the firm as a direct output of the branding strategy. The methods proposed do not take into account the consumer attitudinal dimension of brand equity, for instance, brand awareness, perception and association.

Although attitudinal dimensions are not easily quantifiable, they are fundamental characteristics that give meaning to a brand and represent value to the customer. The importance of these qualitative variables is encapsulated in the imagery, symbolism

and meanings connected with brands. Levy (1973) eloquently dealt with these qualitative attributes and accentuated the fact that:

> ...action in the market place is based on impressions and interpretations that people derive from their experience of a broader sort than that which relates to the object they buy or sell. They cannot learn all the facts available and they cannot keep in mind all those they do learn. In addition, there are various influences pressing them to have one opinion or another about the product, service, and company issue.(p.1136)

These are not included in the financial accounting oriented models. Yet, an important implication of branding is that economic value cannot be oblivious to the reality of brands because the uniqueness and differentiation between brands is achieved mostly through consumer subjective evaluation of brands (Oldroyd, 1994).

3.4. EMPIRICAL MEASUREMENT OF BRAND EQUITY

Beyond the different approaches to brand equity conceptualisation discussed above, published work also provides a variety of techniques for measuring BE. This is in the light of the fact that the need to devise an appropriate and objective measurement for BE has become the Holy Grail in BE research. Behind this goal is the need to understand and identify sources of BE and translate them into a financial form that better reflects the competitive advantage accumulated as a result of branding strategy. Yovovich (1988) noted the difficulty in finding a satisfactory method to this problem of measurement and suggested that this is attributable principally to the difficulty of estimating the future economic earnings due to brand asset under market conditions. A substantial amount of the empirical research on BE is experimental in nature (e.g. Aaker and Keller, 1990), and strict control must be kept over many variables. However, many such extraneous variables either have a moderating effect or exercise greater influence on the market condition under which brand equity is built. Figure 3.1 depicts an integrative model of key dimensions identified from selected research on BE.
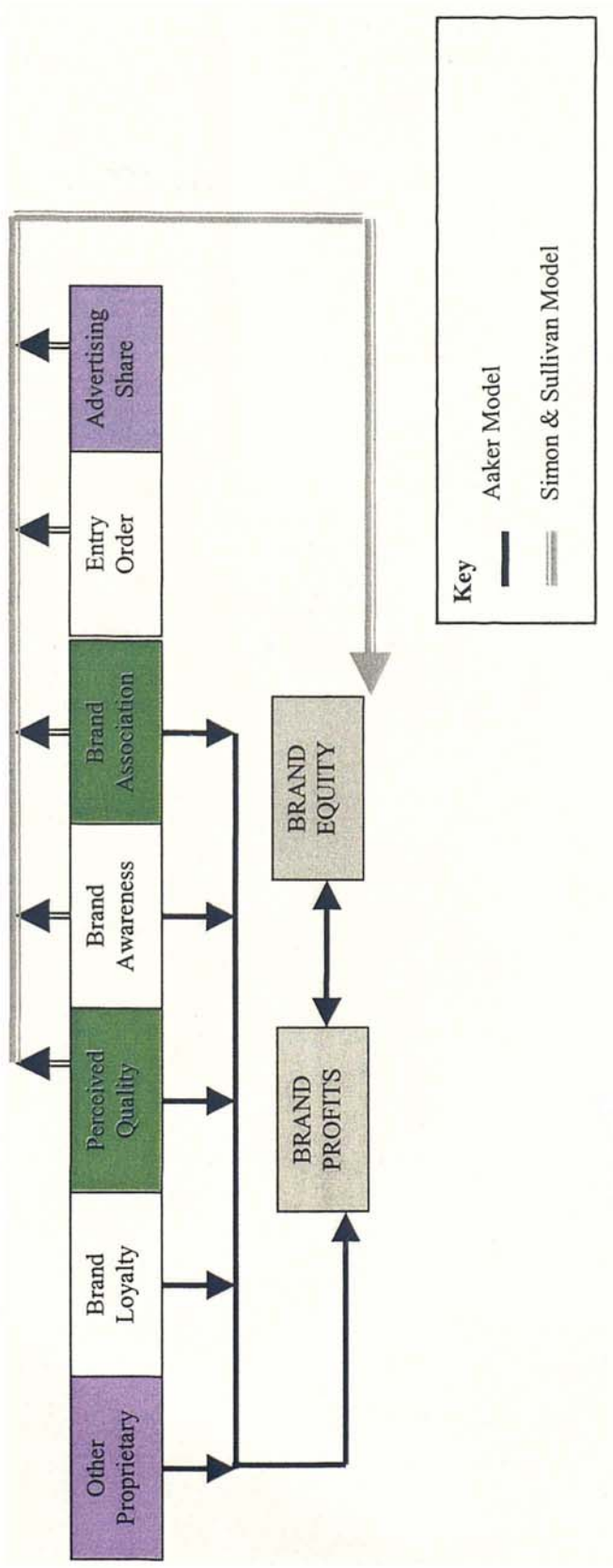
Figure 3.1 Integrated Model of Brand Equity Dimensions Identified from Two Key Studies

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Other researchers approached the measurement strategy in a different light. For instance, Park and Srinivasan (1994) and Simon and Sullivan (1993) both used the survey approach. Based upon one or the other of these approaches, several authors have proposed insightful methods for calculating a brand's equity (see for instance, Green and Srinivasan, 1990; Simon and Sullivan, 1993; Swait et al., 1993; Park and Srinivasan, 1994).

Using a single-source scanner panel data, Kamakura and Russell (1993) estimate segment level brand preference by: i) isolating the effect of both short-term price promotion and advertisement as residuals from a regression equation; and, ii) estimating brand equity by relating the outcome of the first measure to objectively measured product attributes. Kamakura & Russell (1993) used the logit model to estimate BE by adjusting the effects of short-term advertising and price promotions. They obtained a segment level brand equity estimate as residuals from a regression equation in which segment level price-adjusted brand preferences are fitted to objectively measured product attributes.

This approach has been hailed as a positive contribution to the search for an appropriate measurement technique for brand equity (see, for instance, Park and Srinivasan, 1994). The attractiveness of this method is that the computation of BE is based on actual consumer choices in the market place. This makes it more objective than a survey-based method because evaluation is based on real-world data as opposed to a questionnaire survey or laboratory experiments (Barwise, 1993).

However, as Park & Srinivasan (1994) pointed out, a computation method that relies on estimation from residuals in a regression method tends to understate the actual variation of equities across brands. For instance, if the number of brands is the same as the number of attributes considered, the equities obtained will be zero. The limitation of their work is that it seems to provide a segment level estimate of brand equity (Park and Srinivasan, 1994). Computing brand equity as residual in a regression equation may understate the actual variation of equities across brands.

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Such a low amount of variance may be explained due to the high number of qualitative dimensions of brand equity (Blackston, 1995). It is these dimensions with which brand is endowed which gives meaning to brands in the consumer's mind. Table 3.3 highlights selected empirical works on brand equity with specific research propositions.

Research	Key Construct	Sample Frame	Method	Analysis	Propositions
Aaker & Keller, (1990)	Brand Extension	Business student	Experimental design with	Factorial with two levels of analysis	Attitude towards extension is higher when there is a perception of fit between parent brand and the new extension
Blackston (1992)	Consumer brand relationship	Consumer/ Shoppers	Scanner data	Cluster analysis	Consumer and brand are equal partners in symbiotic relationship. This relationship is defined as the interaction between consumers' attitudes towards the brand, and the brand's attitudes towards the consumer. The success of the relationship depends on the consumers' perceptions of the brand's attitudes, hence the basis of meaningful brand's messages.
Bousch & Loken, (1991)	Brand extension	University students	Experimental design	Univariate and multivariate analysis of variance	Consumer evaluation of brand extensions was influenced by the similarity between the current line and the new lines as well as the variation among the breath of current brand.
Carpenter and Nakamoto, (1989)	Brand perceptual position and competitive and the effect of pioneering advantage	MBA students	Experiment	Factorial analysis	When preferences are well defined, and consumers are unknowledgeable about brands, sequential exposure to information about different brands produces differential learning a bout brands as a function of order of entry. Consequent learning about brands degreases with order of entry
Krishman, (1996)	Memory associations: consumer-	Business school students	Survey using Landor index	Data analyzed using ANOVA model	Consumer association differences are consistent with external equity indicators and suggest that difference

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					between brands, within and across product categories.
	based brand equity perspective				
Rangaswamy et al., (1993)	Brand equity and the brand extension	Graduate and undergraduate business students	Survey design	Analysis of variance interpret the conjoint and extension data	Hypothesised that consumer utility for a brand consists of three components and the extendibility of a brand name is limited by how closely the brand name interacts with the physical product attributes in consumers' utility for the brand in the parent category. If consumers prefer two brands equally, but the utility for one brand is partly due to the interaction of the brand name and physical attributes, then that brand name will have a lower value in distant extensions compared to the other brand that does not exhibit these interactions. Overall, the results support the study's model and suggest that in order to maximise future extendibility, a brand should try to enhance the value to consumers of characteristics associated with its brand name such as quality, style, durability and reputation that are not product specific.
Park and Srinivasan, (1994)	Brand equity and its extendibility	Consumers and medical experts	Survey-design	Logit parameter estimate	Of the two components of brand equity, the non-attribute-based component appears to play a more dominant role in determining a brand's equity.

Table 3.3. Selected Empirical Work with Propositions Relevant to the Current Research

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3.5. CONSUMER BRAND EQUITY

This section examines the nature of brand equity from the perspective of the buyer. It examines the concept as *Consumer Brand Equity*, by looking at its conceptual definition. The section also analyses empirical findings and determinant factors for the concept.

3.5.1. The Nature and Definitions of Consumer Brand Equity

By its nature, CBE is a conglomeration of 'unique' market-based attributes that enable a brand to hold a favourable perceptual position in comparison to its competitors. The basis of such uniqueness goes well beyond the functional attributes of a brand. This is particularly so as technological development and innovation in manufacturing drives the improvement in the intrinsic attributes of brands. Consumers are, therefore, quick to notice the general increase in the 'quality' of available brands in virtually all product categories, particularly within the FMCG sector. Within this context, the consumer-brand relationship can be explained as dependent on a mutual and interactive relationship between the *consumer's attitude* towards the brand and the *brand's attitude* towards the consumer. This dual relationship is reinforced by the mutuality of specific brand attributes such as brand image, added value and perceived quality.

A different emphasis is placed on these attributes by research studies such as those of Aaker (1991), de Chernatony and MacDonald (1992), and Riezebos (1994). They approach the topic by examining elements of brand equity such as brand added value, brand loyalty, perceived quality and consumer attitude towards brand.

More specifically, they approach CBE in terms of the consumers' perceptual process that influences brand purchase decision-making. There are a number of researches reflecting the fundamental perceptual factors that researchers considered to be of importance to CBE. For instance, Louviere and Johnson (1988) measured CBE with consumers evaluating the combinations of specific product features and brand names. With this approach brand name represents the subjective element that is still

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dependent upon the objective factors. Therefore, it may not actually reveal the subjective evaluation as the basis for consumer preference itself. Table 3.4 highlights some of the definitions of brand equity from the perspective of the consumer.

Definitions	Author (s)
"...the added value that a brand endowed a product".	Farquhar (1989, RC. 7)
"...is directly or indirectly based upon brand associations that exist in consumer memory (these associations can be influenced by the firm's marketing and, in particular branding strategies)".	Aaker & Keller (1990, p.3)
"...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 and/or to that firm's customers".	Aaker (1991, p.15)
"The differential effect that brand knowledge has on consumer response to the marketing of that brand".	Keller (1998, p. 45)
"...measures that isolate the component of quality perceptions that cannot be directly attributed to the physical product".	Kamakura & Russell (1993, p.20)
"...a residual value in the form of favorable impressions, attitudinal dispositions and behavioral predictions among all those who are exposed to the marketing activities related to the brand including present consumers, potential consumers, as well as channel members and other influences in the buying process".	Rangswany, et al. (1993, p.63)
"is reflected by the brand attitude based on beliefs about positive product attributes and favourable consequences of brand use".	Peter, Olson and Grunert (1999, p.124)
"The value of a brand's overall strength in the market"	Perreault and McCarthy (2000, p.192)

Table 3.4 Brand Equity Definitions from the Consumer Perspective

Park and Srinivasan's (1994) research was based on estimating the overall preference of consumers for a brand which is not inferred from objective attributes. Consumer brand equity was estimated by comparing consumers' stated intended behaviour towards a brand with the actual outcome of the conjoint analysis. This approach is based on the overall consumer preference.

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Edel and Moore (1993) approached their empirical research on consumer brand equity as the linking effect of advertising. This enables consumers to link their feelings about a brand, store such feelings in their memory, and then retrieve the feelings when required. Their research presented propositions that advertising enables consumers to recall everything they know about a brand. This in turn influences their attitude towards such a brand. Using analysis of variance to analyse their data, their work concluded that advertising induced feelings that consumers stored in memory, and that these induced feelings generate a subjective influence on their attitudes towards a brand.

Other studies such as those of Jennifer Aaker (1997) and Blackston (1995) conclude that the development of a successful brand and the magnitude of consumer brand equity are dependent upon the meaning and symbolism that brand personality conveys to the consumer. A brand can be made meaningful to consumers; however, it is when such meaning resonates with consumers that a brand conveys the essence upon which a positive and distinctive advantage can be conferred on a particular brand relative to its competitors. When the new meaning embodied by the brand becomes relevant to the consumer (see for instance Agres and Dubitsky, 1996) the brand is said to have a positive equity higher than its competitors. Some of these key factors are discussed below.

3.5.2. Underlying Factors for Consumer Brand Equity

A number of key factors are identified by research findings in the literature as having determining influences on CBE. There is consensus that factors such as perceived quality, brand added value, brand awareness, brand knowledge and brand associations are sources of CBE. Aaker (1991) identified five elements that influence consumer perception and affect and determine the nature of subjective equity of a brand. The specific ones relating to consumer brand equity are perceived quality, brand image, brand added value, immaterial associations and brand awareness. In the same vein, Keller (1993) presents a conceptual model of consumer perception of brand equity based on their knowledge of such a brand. According to Keller, customer brand

equity occurs when "the consumer is familiar with the brand and holds some favourable, strong and unique brand associations in memory" (Keller, 1993, p.1).

3.5.2.1. Perceived Quality

The role of consumer perceived quality (PQ) in business performance has been widely discussed in the normative literature. Support for the positive effects of perceived quality are also evident in empirical studies such as Jacobson and Aaker (1987), Buzell and Gale (1987) and Parasusaman, Zeithaml and Berry (1985). The role of product quality is the single most important factor affecting business performance. This is because of the relative importance that consumers attach to quality as a global evaluative factor for brand. Although quality assurance underpins perceived quality, there are differences between the actual 'objective' quality inherent in a brand, and consumers' 'subjectively' perceived quality. Aaker (1991), delineates objective quality into three categories:

- Objective – the extent to which the product actually delivers superior service;

- Product-based quality – nature and quantity of ingredients, features or services included; and,

- Manufacturing quality - conformance to specification, such as zero defect goal or various institutional standards e.g. British Standard Index (BSI) and European Standard.

A brand may have an actual objective quality that is different from that perceived by consumers. However, the objective quality of a brand is difficult to measure. This is particularly so because such measures require expert and (sometimes) scientific knowledge of a brand's composition. These are measures which consumers may not have.

Garvin (1987) proposes seven criteria which objective quality must satisfy: reliability, serviceability, durability, performance, features, conformance to established standards and aesthetics. One can understand the difficulties that consumers may face in comparing these criteria between brands.

Perceived quality on the other hand is a subjective assessment based on the assumed effects of quality-based properties on the whole brand. Krishnan and Zeithaml (1993) define perceived quality as *the consumer's judgement about a product's overall excellence or superiority.* (p. 144). Earlier studies by Zeithaml (1988) observed that perceived quality represents a higher level of abstraction, rather than a concrete attribute. Perceived quality can, therefore, be regarded as consumers' evaluative relativistic judgement on a brand in comparison with its competitor. As such, the judgement may vary between consumers. This variance will be dependent on factors such as: the purpose to be fulfilled by the item, and its value when compared to other alternatives.

3.5.2.2.   Brand Loyalty II

As already discussed in section 2.6.3, although the question of what makes people want to buy a particular brand rather than its competitor is important, that of what people are buying and what they are likely to buy is even more crucial to the survival of a firm. This is because consumer trends now move, not just locally or regionally, but globally, and with breathtaking speed. For instance, the Levi Straus company recently admitted that consumers no longer regard its core brand of denim jeans as a 'must have' brand. Within a relatively short period of time, the company lost almost a fourth of its market share in jeans. Finding a timely and effective means of anticipating and influencing changing consumer norms goes a long way in answering the above questions, because it infers that firms are able to draw lessons from measures of brand performance that are central to effective formulation of branding strategy.

Brand loyalty is closely related to brand equity and is regarded as an important underlying factor that determines the magnitude of a brand's equity (Aaker, 1991, 1996). One should, however, emphasise that brand loyalty is more of a determinant factor for brand valuation because of its roles as: (i) a manifestation of consumer brand equity, and (ii) as one of the many advantages of creating positive brand image.

As a behavioural measure for the financial value of a brand, BL is an important basis for assessing brand performance. Brand loyalty represents one of the key measures that brand owners must have in their repertoire. However, focusing on BL measures alone does not provide managers with a means of knowing why a brand is important to a consumer. Consequently, it does not provide a means of identifying possible sources of future preference, nor does it enhance the consumer norm formation necessary for brand renewal as competitive activities erode the distinctive advantage a brand may possess.

3.5.2.3.   Brand Added Value

Several authors have examined and defined added value in economic (White, 1966; Gabor, 1977) and marketing terms (Riezebos 1994; Wood, 1999). Added value can be explained as a psychologically rooted (or identity-rooted) object (or need) that provides self-gratification and reinforces behaviour (White, 1966). Such value may include an experience of the specific physical aspect of a brand or those non-physical aspects of a good that are based on the image of the brand that the consumer has in memory. This may also include economic or utility considerations. The consumer may, therefore, construct their reality from the combined effect of the physical and non-functional part of the brand. Hence, the notion of added value as connoting non-functional values alone (e.g. Riezebos, 1994, p. 2) seems to be an over-simplification of the combined effect of consumer evaluation of both the physical and non-physical attributes of a brand. This is more so as consumers actively evaluate both the functional and non-functional parts of brands to determine the minimal value requirement for a brand to compete in its product category.

3.5.2.4.   Brand Intangible Value and Brand Value Measure

There are various other measures of BE from the consumer perspective. These include those that are based on derivation of specific utility value that consumers gain from using a brand. Using Nielsen scanner data to determine brand value (BV) and performance ratings available from Consumer Reports, Kamakura and Russell (1993) isolated measures of brand intangible value (BIV). In doing this, Kamakura and

Russell broke BE down into two measures of brand value (BV): perceived quality and brand intangible value (BIV). BIV is a measure that isolates those components of consumer quality perception that cannot be directly attributed to the actual physical product itself. Kamakura and Russell derived a measure of consumer choice model based on the following formula:

$$U_{KJ} = \alpha_{SJ} + \beta_S \rho_{KJ} + \tau_S a_{KJ} + e_{kj}$$

According to this formula, the utility of consumer k to brand j (U_{KJ}) is equal to the utility that is intrinsic to the brand for consumer segment S (α_{SJ}), plus the net price after promotional discounts (ρ_{KJ}) plus the influence of short-term advertising (a_{KJ}), plus an error component (e_{kj}). The price sensitivity parameter of segment s is indicated as β_s where τ_S represents the advertising sensitivity parameter of segment s. Brand Value (BV) for brand j is calculated using the formula shown below, where f_s stands for the relative size of segments:

$$BV_J = \sum f_s \alpha_{sj}$$

According to this formula, BV is based on the perception of physical features, but a distortion of that may arise due to the influence of long-term advertising. Therefore BV is equal to the sum of a brand's tangible value (BTV) and a brand's intangible value (BIV). Of major importance in Kamakura and Russell's findings is the extent to which perceived quality influences the market share of brand. This is commensurate with findings by others such as Aaker and Jacobson (1994) and Aaker and Keller (1990). However, the shortcoming of this particular approach lies in its conceptualisation. This is because the notion that consumer quality perception (as separate from the physical product itself) can be readily differentiated does not resonate with the idea of a brand as an embodiment of both functional and non-functional utility.

3.5.2.5.   Brand Strength and Brand Value

Brand strength and brand value are two inter-related constructs. In financial terms, brand strength includes those factors that influence continuing consumer patronage and future sources of earnings. Interbrand's identification of brand strength as an anchor concept for brand performance influences its popularity as a financial measure

of brand performance. Brand value in financial terms refers to an absolute value attributable to a particular brand. Conceptually, this involves two key steps. First, identifying and isolating the incremental future earnings and cash flows attributable to a brand in comparison with its unbranded counterpart; and second, capitalising the incremental earnings and cash flows at risk-adjusted cost of capital gives a net present brand value (Kerin and Sethuraman, 1998).

In this sense, brand strength on its own is a dimension of CBE while brand value is the financial reward of brand managers' ability to strategically harness the influences that a brand has in the market place to achieve competitive advantage. In discussing these concepts as dimensions of brand equity, Feldwick (1996) acknowledged the similarity between them as distinctive first order concepts rather than specific factors of brand equity.

Brand strength is sometimes viewed as a first order factor synonymous with brand equity rather than a factor of BE. In fact, *Interbrand-Sorrel* and *Financial World* based their measure of brand financial value on brand strength. According to *Interbrand*, brand strength is more appropriate as a behavioural measure of brand performance from the perspective of the brand owner than of the consumer.

3.5.2.6.   Brand Immaterial Associations

Using a survey technique, Park and Srinivasan (1994) developed a scaling instrument for measuring consumer brand equity. Their procedure involves obtaining the individual consumers' overall brand preference as well as an individual preference rate on multiple levels of attributes. Brand equity is measured as the difference between the individual consumer's overall brand preference and the multi-attributed preference rating. Both measures of overall preference rating and multi-attribute were scaled to cents or dollars. By subtracting one from another, a measure of consumer brand equity is obtained in terms of cents. Using a conjoint analysis framework, they modelled consumer preference on objective attribute measures as an additive utility function. The formula representing objective measures is given below.

$$u(o)_{ij} = \sum_{P=1}^{q-1} f_{ip}(o_{jp}) - w_{iq}o_{jq}$$

Price expressed in cents u_{ij} and w_{iq} denotes the importance of the weight that individuals attach to the price attribute. By analysing brand equity in terms of overall perception and attribute preference, they also related the attribute-based component to the differences between subjectively perceived components of a brand. In common with other brand equity conceptualisations (e.g. Aaker, 1991; Keller, 1993), brand associations underlie the subjective attribute in Park and Srinivasan's study.

Park and Srinivasan's use of a survey method provided a measure of brand equity at the individual level. In addition to providing an indication of the sources of brand equity in terms of its attribute and non-attribute-based components, it also enables brand managers to assess the impact of brand equity on a brand's performance. However, the limitations of their study include the actual conceptualisation of brand equity. For instance the general approach based on brand added value may have been appropriate at the time their research was conducted. However, it is clear that using added value as the basis for assessing brand value does not adequately reflect the nature of brand equity. Other limitations are methodological in nature, including the measurement errors and shortcomings inherent in any endeavour to obtain objective measures of brand attributes.

3.6. THE NEED FOR A RESEARCH ON CONSUMER BRAND EQUITY

The renewed surge of interest in branding practices (despite several pronouncements on the death of the brand in the mid 1990's) re-ignited both academic and practitioners' interest in brand value measurement. This interest intensified as a result of flux in the market place. The 90's brought a turbulent market environment which was characterised by sustained economic buoyancy (particularly in Western economies), globalisation, industry consolidation, and intense competition among fewer larger firms (Webster, 2002). Firms, therefore, concentrate their efforts on building both product and corporate brands as a means of delivering value to the consumer and to the brand owners.

The 'new' focus on customer value as the driver of profitability and, ultimately, shareholder value (Doyle, 2000; Srivastava, Shervani and Fahey, 1999) increased the interest in branding thereby propelling its importance to the top management agenda. Although the financial impact of brand on company assets has been recognised for quite some time, there is also the renewed interest in the concept of brand equity as a strategic asset. While this interest represents a positive development for brand management, "*more emphasis was placed on their value on the auction block, less on the need to invest in them to maintain and build value for the future*" (Webster, 2002, p.23). It is this need to build value for the future that presents challenges for research in this area.

In building value for the future, one needs to distinguish those factors that facilitate the development of brands in the late 1980's to early 1990's from *those that could propel brand further in the light of a challenging environment*. Brand, in common with other management practices, reflects the current state of the market which is generally in a state of constant change as a result of evolving environmental factors. Hence, the relationship between brand owner as the creator of brand, the consumer as its custodian (Frank, 2001), and determinants of brand success in the market place, is more profound than ever before. It is, therefore, logical to expect that the subject of brand valuation will continue to reflect this inherent underlying mechanism through which brands provide differing but interdependent value for their owner and the consumer.

3.6.1. Summary on Brand Equity

Brand equity is the evaluation of the value of brand to the firms. A number of measures designed to elicit this were based on notions such as customer satisfaction, brand loyalty, brand strength and perceived quality. These factors among others represent some of the key influences on consumers. They are also factors which facilitate economic gain and underpin the financial strength of a brand.

However, empirical discrepancies and the flux in the general environment has cast doubt on the ability of these factors to influence brand value. For instance, the ability

of brand to command premium price is under serious doubt. As the pressure on price grows, brands' ability to command premium price diminishes in proportion. Therefore, the argument that the premium price represents the acid test of a brand's worth (see, for instance, ICAEW 2001; Mullen and Mainz, 1989) does not seem to be valid. The inability of many brands (e.g. Kellogg's, Marks and Spencer, and many products within the Procter and Gamble portfolio) to sustain premium price in the face of fierce competition has shown that a brand's ability to command premium price is not a 'given' basis for determining its equity.

Developments in marketing (e.g., the mounting pressures of global competition and the growth of mega retailers such as Warl-Mart in the US, Tesco in the UK and Carrefour in France) have intensified the pressure on price premium. Other factors such as price transparency enabled by the e-commerce (Webster, 2002), and the battle for sales volume and market share, have shown that *premium profit*, rather than *price*, should represent the basis for expected gain for a strong brand. It is, therefore, tenable to appraise brand equity as the accumulation of economic return, rather than by factors based on price fuelled by sales promotions and frequent buyer programme. One may, therefore, argue that the accumulation of a well-defined consumer value that enables a brand to command continual patronage in the market place represents its key sources of *premium profit*.

3.6.2. Summary on Consumer Brand Equity

Consumer brand equity refers to the means of evaluating value to the consumer. Since CBE underpins the value of a brand, there is the need to incorporate those measures that influence the consumers' determination of the value of a brand. In summarising that BE is the evaluation of the financial value of a brand, it is worth reiterating that BE depends on consumer patronage of the brand. The need for a long-term measure of CBE in terms of the determinants of its value to the consumer is therefore an important consideration in brand equity. However, factors that measure consumer brand equity should be able to address how a brand can continually provide value to the consumer. Existing measures for consumer brand equity are those based on specific factors such as brand awareness, perceived quality (Aaker, 1991; Kimani

and Zeithaml, 1993), brand knowledge (Keller, 1998), brand identity (Kapferer, 2001). Other measures such as consumer *utility*, which is not explained by functional attributes (Swait, et al, 1993), provide sound understanding of some of the determinants of consumer brand equity.

The business environment prevailing at the time when earlier measures of consumer based brand equity were proposed has changed dramatically. For instance changes such as technological, rapid innovation and cultural norms influence the nature of consumer brand equity in a different way to that prevailing in the 1980's and early 1990's when many of the existing measures were designed.

The question is that of how a brand can provide continual value to the consumer in the face of such changes. Another question that ought to be addressed is that of how a brand can maintain and renew the value it provides to the consumer in the light of changing events that may erode such value. These are important issues which existing empirical research does not seem to address.

3.7. CONCLUDING REMARKS

Published studies on brand equity, an area of growth since the mid 1980's, further received an upsurge in the late 1990's as the changes within the general environment strengthened the need for firms to brand their offerings. This is in the light of the massive choice available in a global market as well as the pressure on price as mega retailers emerged from key markets in Western economies. If brand means different things, it is appropriate for one to assume that it also provides different types of value to brand owners and consumers. This logic provided the basis for examining the empirical work by dividing it into the two categories of brand equity and consumer brand equity. Both areas were examined, but with the primary purpose of identifying the underlying factors that influence consumer brand equity in particular. Findings from this show that several factors influencing brand equity are espoused in the earlier literature. These include factors such as perceived quality, brand image, and brand loyalty, the added value that a brand provides among others.

However, these factors do not adequately explain consumers' preference for brand in an environment where consumer norms are rapidly changing. For instance, the difficulty experienced by Marks & Spencer's (M&S) brand in the UK between 1998 and 2001 was a reflection of the fact that the brand lost touch with consumer preferences. This eventually affected the image of M&S as consumers were able to judge its value against competing brands such as Next. M&S could not match the new expectations of its customers, nor was able to attract new customers. Hence, the market concluded that the M&S brand was no longer relevant for its core market.

Clearly, consumers are looking for a few clear signals of quality, distinctiveness and difference (e.g. Solomon and Stuart, 2000) and relevancy of offerings to their needs and wants. But while concepts such as perceived quality and brand image serve as signals of distinctiveness (Riezebos, 1994), consumers are ready to abandon one brand in favour of another that provides relevancy. It therefore seems that these factors in themselves are no longer adequate to confer distinctiveness and difference on a brand (see for instance, Wood, 1999). It is the content or core value that consumers derive from a brand that plays an important role in their consumption activities. These core values also influence their buying behaviour.

Given the importance of brand in a global economy, it is important to understand consumers and their changing needs in order to create continual brand value for them. In order for a brand to anticipate and mould consumer value perception fresh ideas on brand preference formation are important. Since the economic value of brands to consumers fluctuates just as the business environment itself, an effective measure of CBE must have a built-in projective means of anticipating a future basis for consumer brand value evaluation. Anticipating the future sources of brand value for the consumer requires an understanding of the basis upon which they assess the value that a brand provides for them. Hence, there is the need to focus on those changing consumer attitudes and preferences that are likely to inform the future value of brands.

Simply put, although the literature reviews in this chapter identified important factors of brand equity, few actually incorporate the changing norms of consumers into their measures of consumer brand equity. In the light of the need for more emphasis on

how to build consumer value (see for instance, Webster, 2002), it is appropriate to focus this research on consumer brand equity.

CONCEPTUAL DEVELOPMENT OF CONSUMER BRAND EQUITY

4.0. ORGANISATION

Following the review of published literature in chapters two and three this chapter presents a conceptual framework for consumer brand equity (CBE). The chapter is divided into five sections. Section **4.1** is an introduction to the chapter while **4.2** discusses the impetus for re-conceptualising the concept. Section **4.3** offers a conceptual explanation for this investigation by looking at the nature of the phenomenon of CBE. Section **4.4** explains CBE and defines the research constructs examined in this study. In **4.5**, the structure of CBE is examined by discussing key propositions relating to its underlying factors. Section **4.6** centres on three further propositions that explain the consequences of CBE and its effect on consumer brand value perception. Section **4.7** presents the research hypotheses developed from the propositions discussed earlier in the chapter. The chapter concludes in **4.8**.

4.1. INTRODUCTION

This chapter presents a theoretical analysis of consumer brand equity (CBE). It suggests a conceptual framework for CBE, and it also develops propositions for the research hypothesis. The outline of the research propositions relates specific factors to CBE. The second part of the propositions relates the impact of CBE to consumers' brand value perception. But first, distinction is made between *brand equity* and *consumer brand equity*.

From the customer perspectives, BE entails a set of attributes that influence consumer choice (see chapter three). This broad definition of BE defines the construct in terms of both tangible and intangible attributes that influence consumer choice. In addition

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to the functional benefits provided by the product, it also reflects the *totality* of what a brand signals to the consumer (see, for instance, Aaker, 1996; Carpenter et al, 1997; Farquhar, 1989; Kerin and Peterson, 2001).

However, as the nature and determinants of the brand/consumer relationship evolves, understanding of the values sought by the consumer also changes. These changes show that the consumer/brand relationship is particularly influenced by technology and competitive activities. Both of these have an effect on consumption norms as well as certain criteria by which consumers evaluate brand value. As the criteria for evaluating brand value changes this is affecting the nature of factors that determine their preferences for a brand in the market place. For instance, the level of 'quality' – objective quality- that consumers seek seems to rise with technology and manufacturing innovations. But the importance of quality as a criterion for brand selection recedes as product quality improves (Dawar, 1998). Hence consumer reliance on tangible attributes as the basis for brand evaluation has receded considerably.

It is increasingly the case that consumers evaluate brand in terms of its subjective and intangible factors beyond its objectively perceived value (see, for instance, Lemon, Rust and Zeithaml, 2001). The accession of subjective factors as the key basis for consumer brand evaluation is apparent in market reality. However, this crucial role of subjective factors is not reflected in the conceptualisation of BE in general. This necessitates the need for reconceptualising BE as it relates to consumer brand equity. CBE, therefore, is a deliberate attempt to separate specific drivers of consumer brand equity in more narrow terms.

The need for reconceptualising is reflected in Drucker's point on why many superstar firms run into crisis:

> The root cause of nearly every one of these crises is not that things are being done poorly. It is not even that the wrong things are being done. Indeed, in most cases, the right things are being done-but fruitlessly. What accounts for this apparent paradox? The assumptions on which the organization has been built and is being run no longer fit reality. These assumptions that shape any organization's behavior, dictate its decisions about what to do and what not to do, and define what the organization

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considers meaningful results. These assumptions are about markets. *They are about identifying customers and... their values and behavior.* These assumptions are about what a company gets paid for: They are what I call company's theory of the business. (Drucker, 1994, p.3)

4.2. RECONCEPTUALISING CONSUMER BRAND EQUITY

Customer based brand equity is traditionally conceptualised in terms of the cognitive elements that inform brand awareness (e.g., knowledge as in Keller, 1993), and cognitive associations with the brand (e.g., perception of quality as in Aaker, 1991, 1996). The second approach to the conceptualisation of brand equity is based on information processing (see, for instance, Erdem and Swait, 1998). This research approached the issue by combining the information economy perspective on brand equity with that of self-perception theory (Bem, 1972) to conceptualise CBE (see section 4.3.1).

The perspective adopted in this investigation is important for the following reasons. First, this research defines consumer brand equity in terms of the subjective attributes of a brand (section 4.2.1). This is in contrast to the established traditions that define customer brand equity very broadly to include both functional and subjective utility attributes that influence consumer choice. Secondly, several of the erstwhile conceptualisations relied upon functional aspects of brands such as quality and durability. Yet, it has become clear that these factors are no longer as important as they were a decade ago. For instance, because of information availability, competitive erosion and consumer learning, consumers now have a greater ability to evaluate and compare the objective quality of brands as a minimal requirement for buying consideration—rather than the bases for making a purchase decision.

Of course, most consumers have scant knowledge to assess the intrinsic worth of a brand. This is because such knowledge may require extensive technical and scientific knowledge that most us may not possess. Even where consumers have such knowledge, it may not be possible to have a scientific knowledge for everything that they consume. For instance, each individual consumer cannot be expected to understand the aerodynamic composition and the efficiency of each aircraft that they

have to fly on. However, there are standards for judging the quality of what one buys in many product categories.

The availability of detailed information from sources such as the Internet and consumer organisations like *Which* in the UK facilitate comparative quality assessment. Furthermore, among themselves, competitors are like the 'watchdogs' of the quality and standard of each other's brand. For instance, when Unilever launched Persil's Power in the UK in 1994, Procter and Gamble (manufacturer of Persil's arch rival Ariel) quickly denounced the brand as 'rogue' powder. Also, continental chocolate manufacturers 'denounced' Cadburys and other UK chocolates as 'inferior' because they were diluted with more vegetable fat than their continental rivals.

Of course, when asked about their brand buying behaviour, consumers *still* talk about functional values such as price, quality and durability, etc., as the bases for their purchase decisions. This, as an empirical research by Levy (1999, p.204) concludes, is more a reflection of what the consumer thinks the researcher wants them to say. This is because these factors are regarded as sensible traditional values that inform people's buying decision. An assumption of intrinsic consideration as the key influence on brand purchase represents a legacy of classical economics theory in which man is regarded as a rational decision maker. In reality, consumers (and they often express this) realise that subjective factors are more pertinent and legitimate influences on their decision-making (Levy, 1999). These subjective factors are reflected in real-life buying habits (particularly in Western economies).

The fact that objective quality is an underlying driver of perceived quality is axiomatic in marketing literature (e.g. Garvin, 1987 and Riezebos, 1994). This has further implications for the re-examination of perceived quality as a key driver of brand equity. Increasing technological innovations enable firms to improve upon the quality of their brands in relation to product function and manufacturer capability. The effect of this is that objective quality has increased comparatively over the last decade. And as the means of production becomes evermore sophisticated, functional parity among brands increases.

As a result of objective quality parity across sectors, consumer brand decision became less dependent upon quality assessment. Subjective informational attributions became an important basis for brand selection. Besides, if consumer brand purchase were strongly based on quality, durability and other intrinsic attributes, functional equivalence among brands would seem to be the sole basis for brand purchasing. Were this to be the case, consumers would either practice single brand purchase, or make buying decisions indifferently with approximately equal consideration among competing brands. Consequently, one would expect the market share of competing brands within a product category to be of equal size (Foxall, 1999).

Yet, this is not the situation in numerous product categories, particularly in fast moving consumer goods (fmcg), intellectual property and software brands. In these categories, the number one brands command a huge share of the market over their nearest competitors. Examples of this market reality include: Coca-Cola, Cadbury's Dairy Milk (fmcg); Microsoft office in comparison to IBM's OS2 (software brands); Intel Pentium in comparison to Sun Micro System's RISC (Reduce Instruction Set Computing).

Based on the key issues elucidated above, this research rejects the view that quality is the key driver of CBE. Equally, brand added value as a factor on its own no longer seems to endow a brand with competitive advantage. This is particularly so for two reasons as the intensity of competitive activities erodes any limited advantages that are gained through minor innovations.

The question now is this: what factors are the drivers of CBE in a fiercely competitive market with rapid changes in technology and consumer norms? Empirical evidence pointing in the direction of reconceptualisation has concentrated on these issues for a while now. For instance studies such as Aaker and Keller (1990), Glazer, Kahn and Moore (1991), Herr, Farquhar and Russell (1993), Carpenter et al (1997), all provide convincing evidence that can no longer be ignored in the conceptualisation of CBE. These empirical studies find that, contrary to earlier conceptualisations that consumers compare and select brands on the basis of the product's objective value and functionality inherent in a brand, it is in fact the subjective connotations of a

brand that consumers use to make purchase decisions. These can be surmised as indicating that functional typicality, when defined as the level of similarity inherent in a product segment, does not seem to be the appropriate explanation for consumer preference for a brand over its competitors.

Further empirical evidence such as that provided by Farquhar and Pratkanis (1993) suggests that it is actually the effect of branding activities designed to build a favourable impression for the brand that determines the subjective attributes upon which consumer brand preference is based. In other words, consumer behaviour itself is influenced by the aggregation of branding activities such as advertising, pricing, and sponsorship in conjunction with social norms within the society and vice versa.

Clearly, consumers play a central role in the successful implementation of brand strategy. This is because people attribute meaning and values to a brand (through various branding activities) that enable them to structure their lives, their social relationships and their personal rituals. Brand in any information economy becomes an expression of self. Brands such as Harley-Davidson, Nike, Benetton and Gap are examples of value expressing brands whose meanings are socially constructed. Brands' subjective attributions such as image, warranties, symbol and logo become gestalt upon which consumer brand decision-making is based. This gestalt guides consumers in making sense of numerous brands amidst the information overload endemic in prevailing Western economies.

4.2.1. Defining Consumer Brand Equity

Following the above discussions, the differences between CBE and BE concepts can be elaborated. BE is a broader definition that represents both the firm's evaluation of the brand as well as consumers' evaluation of it. From the firm's perspective, brand equity is the incremental cash flow or other financial return generated as a result of the branding strategy pursued by a firm (see for instance Shocker and Weitz, 1988; Aaker, 1991; Kamakura and Russell, 1993). From the consumers' perspective BE tends to be defined as the value added by the brand to the product or the utility preferences not explained by the objectively measured product attributes (Aaker, 1991; Keller, 1993; Park and Srinivasan, 1994). The concept of BE tends to be

broadly defined to reflect the assessment of value to both firm and consumer. In this thesis, CBE is used as a specific construct to define *consumers' subjective and non-functional intangible assessment of the brand beyond its objectively perceived tangible value.*

Following this definition of CBE a theoretical explanation of the construct is offered, and its components will also be explained in specific research propositions.

4.3. THEORETICAL EXPLANATION

A theoretical construct offers an explanation for the presence and nature of a particular phenomenon. In explaining the theoretical underpinnings of CBE, the objective is to provide specific abstractions to justify the presence and nature of *consumer brand equity*. These abstractions further serve as the bases for developing the explanatory propositions that are reduced to testable hypotheses about the underlying structure of CBE.

As a primary objective of this research is the clarification of CBE, it is important to give an explicit and rigorous explanation of how consumers determine the worth of brand. In particular, specific issues that consumers consider in determining differences, and sources of superiority among brands, are explained as underlying factors in CBE formation. The relationship between the network of factors and their properties are also identified. Research hypotheses are developed in line with this conceptualisation.

A theoretical explanation offers an abstractive judgement for characterising and describing the nature and compositions of CBE. Several perspectives on how brand attributes influence the consumer attitude and preference for a particular brand (rather than its competitor in the same product category) are considered in relation to their suitability and comprehensiveness of explanation for CBE.

Following the above explanation of consumer decision-making, consumer brand equity formation can be discussed in terms of how consumers' attitudes determine

their preferences for a particular brand among a range of competing brands. In relation to this, properties of both cognitive and affective aspects of brand as an attitudinal object are examined. Krech, et al (1982) define attitude as a person's enduring favourable or unfavourable

> ... set of beliefs and associated feelings about an object or situation that predisposes the individual to behave in particular ways toward the object or situation (1982, p.697).

Following Krech's et al definition, an attitude can then be explained as a lasting feeling that tends to endure over time. Attitude, by nature, also endures over a relatively long period of time. Consumers have attitude objects; "from very product specific behaviours to more general consumption-related behaviours" (Solomon, 2002, p.198). According to Katz (1960), attitudes exist because they serve some function for the individual. They are, therefore, determined by a person's motives. For instance, consumers who expect to confront a similar situation several times are more likely to start forming attitudes in anticipation of such an event. By nature, attitude tends to be enduring. This is because once an attitude is developed for a particular object or situation it tends to endure over a long period of time.

Katz (1960) identified four functions of attitude as: (i) utilitarian, (ii) ego-defensive, (iii) knowledge, and, (iv) value-expressive function. The utilitarian function of attitudes is associated with the basic principles of reward and punishment. One may therefore develop some attitude towards a particular brand on the basis of whether it provides pleasure or pain. Ego-defensive attitudes are formed to protect the person from external threats or internal feelings. For example, a product that promises to facilitate the projection of "macho" images such as those depicted in Marlboro cigarettes may be appealing to a male's masculinity. Recently, Lynx with its range of men's perfume and deodorants is stressing the consequences of being caught with armpit odour in public. The knowledge functions of attitude help to provide order, structure and meaning where there is an ambiguous situation or a new product. The value-expressive function of attitudes enables the consumer to express their self-concept. The consumer forms an attitude towards a brand not because of its objective composition from which they can benefit, but because of what a brand says about an individual consumer.

Of course an attitude can serve more than one function—even though in many instances there is one dominant function identifiable with individual behaviour. Of these four functions of attitude identified by Katz (1960), the value-expressive aspect is very relevant to the examination of how consumers are drawn to an array of brands to express themselves. It is this value-expressive aspect of attitude that this thesis will focus upon later in this chapter.

In modelling attitude, there is a consensus in the literature that attitude has three components (see, for instance, Peter, Olson and Grunert 1999; Solomon, 2002). These are modelled as consisting of: (i) cognitive or rational element; (ii) affective feelings; and (iii) actual behaviour. The cognitive aspects of attitude may elicit corresponding beliefs about a brand. The *cognitive* part is the perceptual information acquired from different sources. Information can emanate from internal knowledge, past usage, or external knowledge through word of mouth recommendation. Integrated brand communication is also an important source among those that are encapsulated by *brand history*.

The consumer brand equity formation process is influenced and created by *cognitive* and *affective* dispositions, which determine preference and buying behaviour. This predisposes consumers to take certain actions that may lead to purchase or non-purchase behaviour. This cognitive aspect is reflected in brand history - a summation involving several information gathering processes—which are arrived at as a result of prior learning. The affective aspect is reinforced through both historical connotations and brand image (Carpenter et al, 1997).

The affective component of attitude captures the consumer's emotions or feelings toward a particular brand. Its evaluative nature determines individual's assessment of a brand in terms of favourable perception of superiority that may lead to consumer *insistence* on a brand.

The conative aspect of attitude deals with the psychological processes. It includes the desires, instincts and volitions that lead to purposeful action. This aspect is, therefore, concerned with the likelihood of actions that a particular consumer may take with

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respect to a brand. Consumers may act in a positive or negative way towards a brand. Although actual behaviour may result from conative intentions, this cannot be assumed. Nevertheless, recent empirical research (e.g. Sengupta, 1998), found that consumers who responded positively towards an intention to buy statement for a brand (such as "I will buy it") seem to be more likely to actually make a purchase of that particular brand. Clearly, the relationship between attitude and intention is quite complex because there are various intervening reasons that may prevent a positive attitude being translated into preference and intention to buy.

How then do we form attitudes? The consistency principle of attitude opines that attitudes are formed in terms of how they fit with other related attitudes already held by the consumer. This process is examined in the light of self-perception theory in the next section.

4.3.1. Consumer Brand Equity Formation

Information processing models propound that attitude formation involves the aggregation of the internal information about an object that is available to an individual at the time of judgement (Howard, 1977). This emphasises individual *cognitive* knowledge as opposed to heuristic processes that may not eliminate some of the risks involved in making purchase decisions. (See for instance Tybout and Scott, 1983).

Information processing models differ in form and underlying assumptions. However, two prominent models in the literature on consumer psychology are: (i) self-perception theory on the basis of individual or other people's behaviour (e.g. self-perception model Bem, 1972; and reasoned action Fishbein and Ajtzen, 1975); (ii) cognitive or rational theory.

The self-perception theory explains that consumers may deploy self-perception to construct the meaning of a brand and their attitude to such a brand. This seems the case in instances where consumers' internal knowledge about a brand is "weak, ambiguous, or un-interpretable" (Bem 1972, p.15). In a situation where intrinsic knowledge about a particular brand is unavailable or unknown to consumers, attitudes

may be based upon observation of prior behaviour towards a specific action and circumstances resulting in them behaving in such a way. Self-perception theory suggests that individual behaviour towards brand is a function of learning from one's own prior behaviour or other people's behaviour. For example, consumers may recall why they opted for a particular brand of boxed chocolate when they last purchased one. They may then consider the consequences of such decision as a means of making a purchase decision the next time they need to buy boxed chocolate. Based on their own individual experience with a brand of boxed chocolate, they may also make suggestions to others as to the desirability and value of buying the brand in question. Equally, consumers may take recommendations from trusted sources of opinion (Solomon et al, 1999) as the basis for making a purchase.

The second information processing theory, on the other hand, suggests that consumer behaviour is an outcome of intra-personal information processing. Consumer decision-making is understood as a problem-solving process in which the sequence of activities and its outcome essentially depends on the buyer's rational, goal-directed processing of information. This rational intra-personal information-processing model deemed to underpin observed purchase action is epitomised by Fishbein & Ajzen's (1975, 1985), theory of reasoned action. Brand choice within this theory is seen as a sequential process of cognitive and emotional considerations that precede and influence purchase or no purchase outcome.

While there are points of differences between these theories, they are neither mutually exclusive nor incommensurable. Self-perception emphasises individual learning (i.e. internalised knowledge about a brand through trial and word of mouth) as a heuristic discovery process. The other theory emphasises cognitive information processing. But learning entails the prior gathering of information. I hasten to say that this is not a suggestion that these two theories can replace one another as a whole. The key argument here is that these two theories reinforce each other.

Both theories do not seem incompatible if one considers that the rational decision made by the consumer is based on consideration of subjective factors, rather than an objective assessment of the intrinsic composition of a brand. This is more so in the

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fmcg category where brand purchase decisions involve less extensive consideration for alternatives and it may not necessarily involve active information processing. This minimal need for consideration requires a low level of involvement (see for instance, Solomon, 2002), therefore, one should expect a low level of information processing in brand purchase within this sector.

Information processing does take place. The information consumers process is no longer based on issues such as reliability and functionality because these are determined by the nature of the competitive environment dictating that the onus is on competing brands to advance these factors as the minimum requirement for competition. This thesis suggests that brands provide consumers with the means of expressing their notion of self. They are therefore evaluating their preference for each brand on the basis of its personal appropriateness and gratification that fits their notion of individual self.

Self-perception assumes personal learning from prior purchases as well as learning from numerous other sources. Brand purchase, therefore, implies corresponding dispositions as long as the behaviour is not influenced by external or situational factors, such as, point of purchase inducement, sales offer, out of stock availability and promotional events. In Western economies where consumption activities are highly developed, it is difficult to imagine an entirely 'new' product that does not have marketing activities around it. Marketing activities designed to support the brand (such as sponsorship, advertising and packaging) introduce external sources of influence to purchasing situations. Therefore, environmental influences are also important factors that predispose buyers towards a particular course of action in respect of their brand purchase decision. Between these two models an emerging orientation is that consumers process brand information, but only use such information to discern the *relevance* of a brand to their own life. Figure 4.1, adapted from Hoch and Deighton (1989), depicts the theoretical foundation from which the CBE formation process is adapted. This is explained further in section 4.3.2.
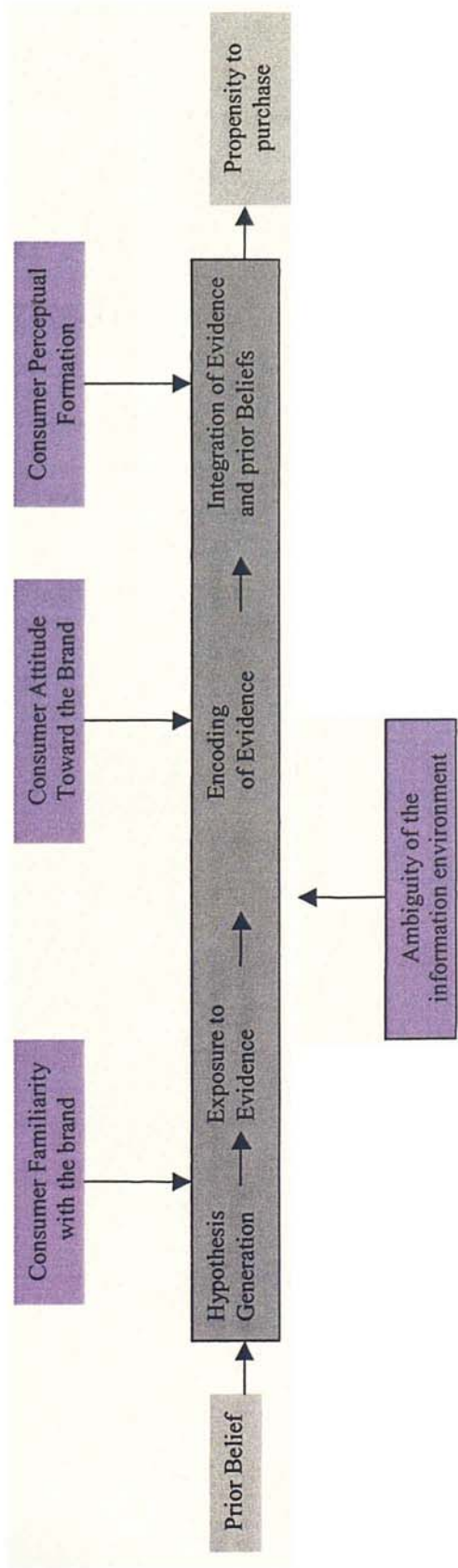
Figure 4.1. Theoretical Foundation for CBE formation Process (Adapted from Hoch and Deighton 1989)

4.3.2 Explaining Consumer Brand Equity and Its Consequences

As consumers, we have different attitudes towards the objects and things we consume. These attitudes influence our perception and behaviour towards such objects. An object toward which an attitude is expressed can be interpreted broadly to include specific consumption related concepts such as product, product category and brand. Furthermore, as a learned predisposition, attitudes also have a motivational quality.

The motivational aspect of attitudes influences consumers to behave in a particular way towards brands. Consumers' attitude, in turn, may propel them towards a particular behaviour or repel them from a particular behaviour. While attitudes do not automatically lead to behaviour, they are relatively consistent with the behaviour that they reflect (Solomon, 2000). Attitudes are also affected by situations. For instance, price, and out of stock situations may have an impact on consumer behaviour towards a particular brand. When consumer brand attitude is favourable, this influences their preference for a brand, resulting in positive consumer brand equity.

This research suggests that consumer brand attitudes are preceded by particular beliefs that determine their evaluation of brand related attributes. These attributes can be categorised into subjective and objective attributes.

Objective attributes are those features of a brand that can be linked with the intrinsic and product based parts of the brand (see figure 2.2). Objective attributes include those that are determined by the efficacy of specific material such as the chemical and biological composition with which a product is made.

Subjective attributes, on the other hand, are associations derived from the non-functional features of brands. These attributes are based on the evaluation of abstractive ideas such as those representing what we think are important, and those that we strive to achieve. They are derived from individual and societal value assumptions. These subjective value assumptions are influenced by attitudes. They are taken for granted beliefs about the relative desirability of certain competing *values* that may not bear any relationship with objective reality. Values, as we will use the

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term in this thesis, are ideas that someone thinks are worthwhile to which one assigns some level of importance (Browne and Keeley, 2001, p.62).

Hoch and Deighton's model (depicted in figure 4.1) serves as the basis for explaining the CBE formation process. The model explains that the prior beliefs held by consumers inform their initial evaluation of brands. Consumers also seek supporting beliefs from other sources such as those derived from word of mouth, testimonial appraisals from credible sources and specific marketing activities. This combination of supporting evidence and marketing activities designed to differentiate the brand reinforces consumer brand preference formation.

Subjective attributes that relate to emotional issues serve as cues that influence beliefs about a brand. This is more likely to be so in product classes where consumers cannot effectively evaluate the intrinsic attributes of the brand. When this is the case, various subjective beliefs that consumers have about brands are summarised as evocative sets. These evocative sets determine consumer preferences among competing brands.

Subjective attributes, therefore, serve as a summary for evaluating brands within the same product class. When large numbers of brands within the same product category become available to consumers, competition and consumer choice become differentiated on subjective features (Agres and Dubitsky, 1996). In such instances, individual brand evaluation is focused on symbolic and abstract features.

Symbolic and abstract features serve as encoding evidence for consumer brand attitudes that determine the magnitude of CBE. The magnitude of CBE in turn determines consumers' propensity to purchase a brand. One can explain the role of CBE in influencing propensity to purchase as a consequence of consumers' tendency to associate specific value that they find desirable in a brand with higher CBE. This is better illustrated with examples.

The first example is a situation where two different brands competing in the same product category have the same objective characteristics. If the CBE of brand A is

greater than the CBE of brand B, the consumer perceived value (CPV) of brand A will be greater than that of brand B.

But if the objective characteristics of brand C are higher than those of brand D, and the CBE of brand D is higher than that of brand C, then the consumer perceived value of brand D will be greater than that of brand C.

The structural relationship between consumer subjective attitudinal belief, preference and value perception is further examined by looking at factors that may influence CBE and the consequences of CBE. This structural relationship is depicted in Figure 4.2.
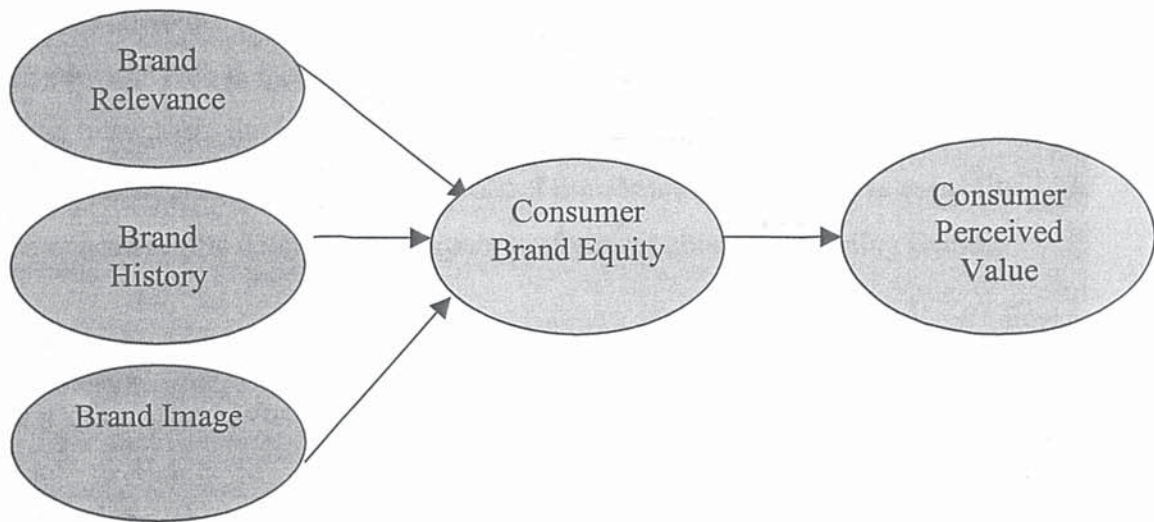
Figure 4.2. Conceptual Framework for Consumer Brand Equity

In presenting the conceptual definition for CBE, the role of consumers' notion of self and the relevancy of a brand to their need for expressing such self were emphasised as having greater influence on consumers' attribution of superiority to a brand. The conceptual explanation for this is centred on a network of factors that may affect consumer evaluation of the value derived from a specific brand. However, brand may accumulate goodwill as a result of consumers' positive (or negative) perception of the differential and unique effect of *superiority attribution*. The attribution that consumers have about brands may be real or something imagined. It may also be the consumer's historical experience that influences preference formation.

Although *Value* derivation takes place during the consumption process, the consumers' evaluations leading to their perception of brands' worth starts earlier, albeit implicitly. Through the process of knowing, receiving and experiencing the brand, the consumer evaluates what a brand has to offer them. Through this, they may attach appropriate value as they deem fit to various brand cues, the totality of which informs their perception of the brand. Consumers also assess brand as an inclusive part of the *total perceived value*. This value is assessed in terms of its subjective worth of a brand to them.

Brand cues are usually created through various marketing activities that are designed to develop brand presence. These activities are also designed to foster favourable attitudes to the brand. The sequences of associative variables (such as brand familiarity, brand awareness and knowledge) are strategically designed to positively influence consumers' consideration of the brand and their choice making process. What is being offered to consumers may not necessarily be physical (i.e. objective or intrinsic). It need not be purely subjective either (extrinsic in nature). Rather, it is the combination of the physical actuality of the brand with subjective attributes that the consumer may refer to when deliberating and making a decision about a brand.

Influencing, however, is not quite simply a matter of informing people about the brand's intrinsic or extrinsic values. Since consumers are not merely recipients of advertising and other communicative messages, both the communicator and the audience are involved in the processes of creating and perceiving the reality from which value is derived. Value may be derived from key interrelated areas of consumer experience. These are the cultural definition of the generic product category, the image of the brand and the physical property of the product itself (cf. Newman, 1966, p.11). As a result of the linkage among these factors, Newman opined that consumers' experience of value is more than an economic decision. It depends on the extent to which a brand "fits appropriately into the total life style of the consumer" (Newman, 1966, p.11). The view of a brand that the consumer has may be based upon the appropriate fits that it has in their life. Such impressions held by consumers may not necessarily correspond to the objective reality of the brand.

The objective reality of a brand is in terms of its intrinsic functional compositions such as those reported by a scientific expert or verifying institutions like *Which* in the UK, the British Standard (BS), and European Standard institutions. One could conclude that the success or failure of a brand is only partially dictated by the actual physical characteristics of the brand. The next section examines the structure of CBE.

4.4. THE CONCEPTS OF *BRAND EQUITY* AND *CONSUMER BRAND EQUITY*

The branding process is said to facilitate the creation of subjective brand attributes that are meaningful to consumers (see chapter two). These subjective attributes— rather than objective attributes—symbolise the reality of brands for consumers. They also form the bases of consumers' evaluations of brands, thereby determining brand purchase decisions. Subjective brand attributes therefore, embody the *value* that consumers look for in maintaining their relationships with brands. The concept of CBE captures the evaluation of *behaviour economic* value that consumers expect to gain from a brand. On the other hand, *BE* captures the *financial economic* benefits that may accrue to firms as a result of pursuing branding as a competitive strategy (see sections 3.2, 3.4).

When one is examining the concept of brand in terms of its value to the firm, the concept of *BE* is more appropriate as the basis for such examination (see section 3.3.1). This importance of BE as economic property to the firm is epitomised in an example sited by Rangaswamy, Burke and Oliva (1993) that:

> A Coca-Cola executive once commented that if the company were to lose all of its production-related assets in a disaster, the company would have little difficulty in raising enough capital to rebuild its factories. By contrast, however, if all consumers were to have a sudden lapse of memory and forget everything related to Coca-Cola, the company would go out of business. It is precisely the well-established representation for Coca-Cola in the minds of consumers and the trade that provides equity for the brand name Coke (p. 63).

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From this perspective BE captures the economic gain and the financial equity that accrues as a result of a firm's pursuance of branding strategy. Brands therefore serve as the epitome of value that link the firm and the consumer in such relationships. What the firm gains through branding is determined by how well a brand's value reflects consumers' expected gains. Such consumer gains determine the economic return for the firm (i.e., BE).

The foregoing highlights the role of brand as an economic property for a firm. However, the measures that firms use in determining the value of their brand may not coincide with the basis on which consumers determine their own preferences. It is clear that the consequences of consumer evaluation of a brand—positive or negative—dictates the brand owners gain (i.e., BE).

From the perspective of the consumer, the value of a brand is dependent on their perceptions of that brand and what the brand stands for in their minds. Consumers evaluate brand value by comparing the alternatives that are available to them.

Consumer brand equity is therefore a function of consumers' perception of brands. It is the subjective and symbolic attributes of brands that influence consumers' propensity to purchase brands. This implies that brands embody certain benefits and values that cannot be attributable to the intrinsic parts of brands. These associated benefits and values provide the basis for consumers' attitudes towards a brand, their preference formation, and they also influence purchase decision-making. The claim that consumer preference for a brand cannot always be explained by intrinsic attributes is now axiomatic in branding research (see, for instance, Aaker and Keller, 1990; Carpenter, et al., 1997; Swait, et.al., 1993; Lemon, Rust and Zeithaml, 2001).

The fundamental difference between BE and CBE is that consumers' assessment of brand value is based on the subjective assessment of perceptual and attitudinal factors. CBE measures are therefore based on subjective factors that capture these attitudinal and perceptual variables. In adopting the construct of CBE, the aim is to distinguish the perceptual (or subjective) evaluations of a brand from its functional or objective evaluations.

4.4.1. Consumer Brand Equity: Antecedents

Consumer brand equity is the result of the comparison of a subjective evaluation of a brand's *relevance*, its *history* and its *image* to those of its competitors.

4.4.1.1. **Brand Relevance**: In discussing brand relevance, it is important to explain that consumers purchase brands that have direct bearings on their individual notion of self. Objects, including brands, are relevant to the extent that they are meaningful to an individual's notion of his or herself. (See 2.3.3). Certainly, if a brand is not personally appropriate and appealing to a consumer, she is not likely to purchase such a brand (irrespective of the image and other appealing subjective attributes it may have).

A brand that lacks personal relevancy is neither going to attract nor keep its existing customers (Agres and Dubitsky, 1996). The recent mass exodus of Marks and Spencers' customers in the UK, and those of Gap customers in the UK and in the US, clearly illustrate the importance of relevancy in keeping and attracting customers. This is precisely why Millard Drexler, the President of Gap, observed that "when we get the product right, we'll get the customers back"[1].

Brand relevance can therefore be defined as *the appropriateness of an offer that motivates consumers to behave or engage in effortful purchase decision-making towards a brand*. This notion is discussed in detail in section 4.5.1.

4.4.1.2. **Brand History**: Brand history is the specific account of a brand that a consumer has acquired over a period of time. Consumers acquire historical facts about brands through several sources. These include the brand usage experience of an individual consumer and/or the experiences of others that an individual consumer has learnt about through word of mouth and shared usage experiences. The factual items that make up a brand's history are also acquired from various other sources. These include: newspapers, radio, television news, documentaries, brand supports and product information (Stevens, 1981), company news and health reports.

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[1] Millard Drexler quoted in *Metro* , Thursday, February 28, 2002, p.33.

In a recent study, Hankinson (2001) found that historical facts associated with a brand are also more likely to remind consumers of the brand than any other associations. Brand history, particularly those that are associated with known facts about a brand, influences consumer perceptions. This suggests that the effect of brand history on consumer brand equity is quite strong because consumers acquire historical accounts of a brand, over a relatively long period of time. As a consequence, such associations are more deeply engrained than images induced by marketing activities (Hankinson, 2001).

Brand heritage is another construct that is closely related to brand history. Heritage connotes something of great value and importance. The significance of heritage may be minimal because consumers often make decisions on the basis of meaningless bits and pieces that do not amount to "history" (Carpenter Nakamoto, 1989). Furthermore, the specific aspect of brand history that seems to influence the subjective evaluation of brands is that which evokes enduring associations in consumers' memory. Therefore, brand history represents a more appropriate construct for this particular study. Of course, in projects where BE rather than CBE is the focus, brand heritage may be a better indicator of value. This research is, however, more interested in CBE.

In this study, brand history is therefore defined as *specific historic features, accounts and experiences of a brand that consumers have acquired over a period of time, and which influence their perception of such brand.*

4.4.1.3. **Brand Image:** An image of a brand is a subset of associations that reflect what a brand stands for and how favourably the consumer views a brand. Brand image as a construct is closely related to brand personality. Brand strategic personality is sometimes used as synonymous with brand image (see, for instance, Upshaw, 1995). Plummer (1985) indicates that brand personality comprises of specific associations with particular characters, symbols, and types of users. When brand personality is used in this sense, it connotes the outward visible representation of the brand.

Through such personality, brands can be seen as young or old, masculine or feminine, aggressive or introverted (Batra, Myers and Aaker 1996). Such personality is then used as an analogy for determining the individual personality attributions such as 'warmth' 'sophistication' 'excitement' 'prestige' 'competence' (Jennifer Aaker, 1994).

Brand image and brand personality are related concepts but they are not the same. Brand image is derived from the subjective views that consumers assimilated from different brand attributes and the consequences of using a brand. Brand personality, on the other hand, tends to be derived from *associations with particular characters, symbols, endorsers, lifestyles, and types of users* (Batra et al, 1996, p.321).

Another construct that is related to brand image is that of *brand identity*. As we will see below (see section 4.5.3), brand identity is more appropriate when one is discussing BE rather than CBE.

Brand image is therefore defined as *those subjective perceptions that consumers hold about a brand that influences their evaluation of a brand.*

4.5. THE STRUCTURE OF CONSUMER BRAND EQUITY MODEL

An integration of modified models of self-perception (Bem, 1972) with that of theory of reasoned action (Fishbein and Ajtzen, 1975) is used to explain the key concepts relating to consumer value perception. The self-perception model views individual actions in terms of the previous exposures from which consumers have learnt. The building blocks of the consumer brand equity model are factors that may facilitate positive ascription of values to a brand. These building blocks are further explained as the basis of the research propositions of this study.

Integrative structure explains the characteristics of, and the conceptual relationship between the constructs within the CBE network. This structure offers a simple way of

making logical sense of the relationships between several concepts that have been identified as important in addressing the challenges of measuring, explaining and testing hypotheses relating to *consumer brand equity*.

There are quite a number of different views on what constitutes *consumer brand equity*. For instance, Keller and Sood conceptualise CBE as the 'differential effect of brand knowledge on consumer response to the marketing of the brand' (Keller and Sood, 1995, p.19). (This conceptualisation is in line with the views of many others. Some of these were discussed in sections 3.4 and 4.1.1 above.)

Some view CBE as an embodiment of various perceptual views that the consumer has about brands (e.g. Aaker, 1991, 1996). Others maintain that it is the knowledge a consumer has about the brand that informs what she *feels* about it (e.g. Keller, 1993, 1998). In this thesis, the contention is that it is the unique effect of the perception of brand value that influences consumers' attitude towards brands. It is also this unique effect that determines the consumer's evaluation of brands' value when they are making a decision about the brand in actual purchase situations.

4.5.1. Brand Relevance

The concept of brand relevance refers to the extent to which a brand has a direct and positive bearing (with significant consequences or implications) on consumers. Such a brand is said to offer consumers some kind of unique attributes that make it relevant to them. Uniqueness is a fundamental aspect of what a brand must offer for it to be *"distinctive...and appealing to consumers"* (Murphy, 1992, p.3). It is due to this perception of distinctive appeal that a brand gains competitive advantage. But consumers may perceive a brand as being distinctive without being able to understand its relevance to their individual needs. A distinctive but non-relevant brand may not be able to survive for long in the market place. Hence, *"the primary challenge is to show how brands can be important in the lives of the consumers"* (Agres and Dubitsky, 1996, p.24).

By anticipating, moulding (Penrose, 1995) and influencing the ever changing consumer norms, a brand can become *relevant*, not only to consumers' needs and

wants (section 4.4), but also as a symbolic icon that matches consumers' expression of 'self'. This concept of self is crucial to the relevancy of a brand to the consumer. The concept of self refers to the belief that a consumer holds about his or her own attributes, and how he or she thinks others view these attributes (Hoyer and MacInnis, 2001; Solomon, 2002). This notion of self influences consumers' evaluation of those personal qualities that make them who they are. It also guides consumer behaviour in three ways. First, it influences the consumption goals and objectives of consumers. To accomplish their objectives, consumers may engage in behaviour that is relevant to them, and certain brands are believed to be beneficial in enabling this. Secondly, consumers' functional, symbolic or hedonistic needs (such as those posited in Maslow's hierarchy of needs *) might influence the relevancy of a brand to them. For instance, instead of its functional composition, symbolic needs may influence the preference for a particular brand. This is particularly so in a situation where very visible consumption may take place. Finally, consumers may be influenced to behave in a way that is consistent with the values and beliefs they deem to be important.

The three fundamental premises of goals, needs and values underlies consumers' determination of 'self' in Western economies. The symbolic interactionist perspectives on the notion of self, implies that each one of us actually has many selves. For instance, there is the *actual* and *ideal* self of a person. An *ideal self* represents a person's conception of how he or she would like to be. An *actual self* presents the more realistic appraisal of the qualities that a person has or does not have (see, for instance, Rosenberg, 1979; Sirgy 1982).

There is also the combination of a person's self that is in-between the *actual* and *ideal* self, giving rise to a kind of *dual* or Jekyl and Hyde person. One can also talk about another self, one in which the consumer may emphasise only one part of the two 'selves', by ignoring one or the other selves that make an *individual unique*.

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* Maslow (1970) formulated a hierarchy of biogenic and psychogenic needs in which levels of motives are specified. These needs are motivated by physiological, safety, belongingness, ego and self actualisation needs.

In Western economies, the *ideal* self is partly modelled by elements of a consumer's culture such as those constructed around specific heroes, dignitaries and celebrities. Examples of these would include: those depicted in the news (e.g. the late Diana, Princess of Wales); and celebrity endorsers such as Michael Jordan for Nike; and, Sarah, Duchess of York for Weight Watcher and Wedgwood. These and many others serve as a model of appearance, achievement or appropriate consumption.

In a conscious or un-conscious process of adopting the appearance of these role models, different sets of brands are required as props to play each role. Consumers may purchase brands believed to be instrumental in helping them to achieve the goal of matching the type of 'self' they wish to emphasise. Some brands are chosen because they are perceived to be a reflection of *actual self*, whereas others are used to help in reflecting the value that is connoted in the *ideal self*.

Although most people experience a discrepancy between their real and ideal self, the magnitude of the discrepancy varies among people. In a situation where the gap is high, people may be influenced by marketing communications that are based on fantasy (Harrison, Fioravanti and Lazzari, 1983). One could assert credibly that many brands are successful because they appeal to consumers' fantasies. Fantasy is defined as a self-induced swing in consciousness, which is sometimes a way of compensating for a lack of external stimulation or of escaping from problems in the real world (see, for instance, Steven and Rhue, 1985).

Marketing strategies designed to reflect consumers' fantasy allow us to stretch our vision of self by placing us in unfamiliar or exciting situations. They may also permit us to "try on" interesting or provocative roles. Two examples should make this point clearer. First, an advert for Bachelor's super noodle that was released in 2000 showed a man of about 30 years old 'cooking' a pot of bachelor's super noodle. This was intended to give him the appearance of a good cook—possibly that of a cook who is as good as the woman who lived in the same house. His vision of himself as a good cook led him to try on the woman's clothing in the washing basket in the kitchen. Dressed as a woman, he was dancing to the tune of, *I am every woman, it's all in me!* Then, his friends walked in. The next sequence showed his friends shocked to see him

in drag, while he looked embarrassed and confused. In a moment, the friends also ransacked the basket, dressed like women, and they joined him in dancing to the tune. The second example is that observed by consumers' appetite for makeover, such as those found on the health and beauty counter.

Furthermore, the cycle of influence (i.e. among brand, consumer and the market) is constantly changing in a competitive economy. This change is facilitated by information technology. Technology facilitates online makeovers or the virtual experimentation that enables the consumer to try on an item before buying. (Examples of these include that of *Cosmopolitan's* at www.virtualmakeover.com and that of Rayban sunglasses at www.rayban.com). These influences, which facilitate consumers' expression of self, also create new changes in people's expression of their self. These changes are demonstrated by the new brands they buy to express their new selves.

One consequence of this is that a brand that is relevant to consumers today may no longer be so tomorrow. This is because consumption norms, fashion and technology constantly change the nature of what competitors are offering. These changes also bring about corresponding changes in the nature of what consumers are willing to buy. Influenced by both technological innovation and highly developed consumption norms, the consumer-brand relationship is ever evolving.

In these circumstances, relevance becomes a significant issue for brands. It should be noted, however, that due to the nature of the markets, what the consumers 'want' may not be apparent to consumers themselves until it is actually made *relevant* to them (i.e., the consumer). This leads to the following proposition:

Proposition 1: The relevance of a brand has a significant impact on consumers' attitudes towards competing brands in a product category.

Personal relevancy is an important factor in consumers' assessment of the value of a brand. Consumers inductively learn that different parts of the self can be expressed by a constellation of personal rituals and activities. These constellations define the roles

consumers want to adopt at a particular time. For instance, a respectable city executive woman can become a *femme fattale*, while a priest can also become a 'hell's angel' in the evening. Different brands could facilitate the transformation from one role to the other. For instance, brands such as Harley Davidson and various products branded on its extended name would fulfil the role of a 'Hell's Angel' for the city slicker. We may, therefore, conclude as follows: the extent to which a brand is relevant to an individual is commensurate with the extent to which it has significant bearing on their expression of self (see, for instance, MacInnis and Hoyer, 2001). It is this notion of "fit" between a brand, on the one hand, and the goals, needs and values of the consumer, on the other hand that epitomises the importance of brand relevance.

4.5.2. Brand History

Brand history embodies the variety of associations that the individual consumer may have learnt about a brand from various sources. These associations are those which influence the perceptual preference for the brand, and they are reflected in consumer evaluation of brands' value. These associations may be acquired through usage, experience, word-of-mouth, marketing communications or other factors. A brand's history is not stagnant; rather, it is renewed continuously through the accumulation of further enhancements of perceivable values.

Although consumers may believe that the positive assumptions connoted by a brand yesterday will be similar to those it connotes today, this is not necessarily so. Penrose (1995, p.116) aptly adds that whenever a firm's brand is associated with previous products offered by that firm, a linkage is created. This is usually through innovative improvement such as a 'new' and improved product that has a bearing on consumers' recollection of the brand's predecessor.

Brand history, therefore, represents an important issue in consumers' assessment of risk. Issues of reliability, 'bond' likeness, etc., are also important issues that a brand history may affect. It should be noted, however, that brand history is not necessarily about the chronological ordering of events. Rather, it is about the collective actions that a firm takes in relation to the brand. For instance, things like support, innovation, packaging and specific brand building are integrative activities that the consumer

associates with the brand. Hence, brands that have a cohesive approach to their communication strategy are more likely to enhance its consumer brand equity. This explanation led to the second proposition that:

Proposition 2: Brand history has a significant impact on consumers' attitudes toward competing brands in a product category.

Pioneering a product category represents an important factor that can enhance consumer attitude towards a brand. Such pioneering advantage is an important factor that may influence brand history. Such historical association may accord significant positive value perception to a brand. This may occur as a result of three key processes.

First, brands that are pioneers in their category tend to be well associated with such a category. Consequently, in a situation where a brand has strong and consistent marketing support, that brand may continually retain a top of the mind awareness. This may lead to a situation where they become exemplar brands in their product category.

Secondly, a brand that has a positive history may benefit from such association in the consumer's mind. These positive historical associations with a brand also influence consumer brand attitude formation.

Finally, a brand's history may accord it the privilege of defining the criteria that should be used to evaluate all other brands in its category. In this situation, Carpenter and Nakamoto (1989) shows that brand history affects (i) consumer formation of ideal preference points, and (ii) the establishment of attributes upon which brand evaluation is based. Such evaluation may not be based on the 'objective' attributes of the brand, but on its historical order of entry into the market (Carpenter, et al, 1997).

4.5.3. Brand Image

Consumers may acquire many associations with a brand over time. It is on the basis of these associations that they form an image of what the brand means and stands for.

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These may be associations with qualities, with individual people or with kinds of people. For instance, the association of Michael Jordan with Nike helped to fix the image of the Nike brand in people's minds as leisure wear, rather than just sports wear, despite its strong associations with sporting events. Joyce hypothesised this representation as brand image and defined it as:

> ...the set of associations, which a brand has acquired for an individual.
> (Joyce 1963, p.45)

Brand image can be explained as the acquired representations that an individual has attributed to a brand. These representations contribute to consumers' evaluation of the worth of a brand to them.

An image may comprise of more than these beliefs and evaluations that directly relate to the brand. One could include idiosyncratic factors like individual feelings, impressions, associations and usage experiences as some of the many factors that affect brand image. The image of a brand that consumers have is closely linked with how relevant the brand is to them. For instance, the total product sector of a brand may have a negative image, e.g., chocolate in terms of healthy living for adults and the negative nutritional value associated with it for children. Yet an individual brand could exhibit a high level of brand image as a distinctive representation of the esteem it commands in consumers' minds.

While prevailing theoretical explanations conceptualise brand image as a complex combination of tangible and intangible product attributes, this study explains brand image from an interpretative (Cornelissen, 2000; Moingeon and Ramanantsoa, 1997) and symbolic (Levy, 1997) representation perspective. Symbolic interpretative representations may emanate from several sources. These sources may functionally compose of brand identity features such as: (i) the brand name (and possibly the company name); (ii) jingles from advertising, sponsorships and other forms of integrated communication; (iii) retail outlet; (iv) price; (v) packaging; (vi) physical and general appearance of a brand and the attributes of the product itself; and (vii) the actual experience of using the brand. However, these functional elements represent a

descriptive list of things that may help consumers to remember specific aspects of a brand. Brand identity represents schematic representations linked to a brand.

Following Kapferer (1997, p. 91), brand identity can also be described as the common elements sending a single message amid the wide variety of slogans from other competing brands. Kapferer presents a model of brand identity that is based on the fundamental components that specify the brand's meaning, aim and self-image. The components are a brand's physique, personality, culture, relationship, reflection and self-image. In short, brand identity represents the input with which an organisation infuses a brand. Brand identity may also be reinforced by various other brand communication elements. While brand identity may include all input, the brand image that consumers perceive may not represent all the associations linked to such input. The brand image that consumers perceive may be formed from those parts of brand identity that are salient and meaningful to their interpretation. Brand image is the end product of consumers transposing their desires on to such an identity representation in order to satisfy their value expectations. This relationship between brand identity as organisational input and brand image as consumer perception of such input is depicted in figure 4.3.

Brand Positioning Attributes
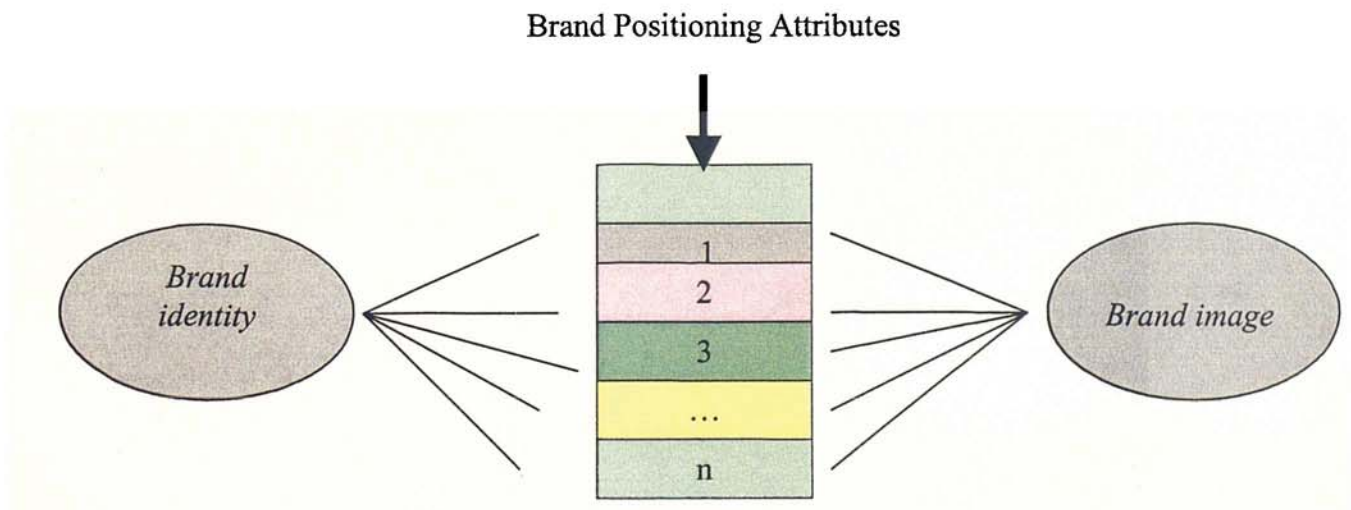
Figure 4.3 Lens Model Reflecting Identity via Brand Positioning Attributes and Brand Image as Perceptual Interpretations of the Attributes. (Based on Dudycha and Naylor, 1966, adapted from Riezebos, 1994)

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Sometimes, a particular character, symbol, lifestyle or personality may provide an endorsement image for a brand (Batra, Myers and Aaker, 2000). The level of compatibility between the image of a brand as a surrogate for consumers' own self image determines the level of perceptual superiority attribution with which consumers may endow a brand. It is the ability of a brand to communicate brand features that closely matches consumers' expectation and self-image. By understanding consumer brand image and how it relates to consumers' own image, firms are able to enhance and maximise the image of their brand to consumers.

Kapferer (1992, p.11) asserts that it is actually the management of meanings and identity that distinguishes brands from each other. The assumption here is that if brand identity is "correctly managed, and importantly managed over time, in the context of brand portfolio... then the rest will follow" (Kapferer, 1992, p.11). Clearly Kapferer's distinction captures the point that a brand embodies identifiable propositions that consumers accept as the basis for preferring a particular brand. However, because it is up to the consumer to interpret brand identity as a signal that matches their expectations, one should claim that it is actually brand image that consumers rely on in their purchase decision.

It is very clear that people do not always perceive what the firm wants them to perceive. For instance, a brand image may become stale or outdated and this may lead to negative associations. A negative association in turn may lead to a situation where consumers have a different image of a brand from that expected by the brand owner. This is because people tend to interpret the individual facets of brand identity by summing them up as a combined representation of the whole brand. This is precisely why the success or failure of a brand is not merely dependent upon its intrinsic composition; it also explains why perception is often the basis for consumer ability to identify with a brand. Häagen-Dazs, a US based luxury ice-cream brand, encountered this situation in Europe. Consumers in Europe saw it as an expensive treat that does not necessarily taste better than mid-range alternatives such as Ben and Jerry ice cream (Beck, 1998).

In identifying with a brand, consumers make it theirs by creating a meaning for it. This new meaning is based on what the brand represents to them. It is this capacity to infuse brands with identities that are perceivably relevant to a disparate number of individuals that makes brand image an important factor in consumer brand equity. Brand image and brand identity, therefore, represent two different sides of the same coin. Brand identity may be an appropriate basis for infusing a brand with meanings. But it is the perception of what such an identity connotes in consumers' minds (i.e. its imagery, symbolism and representation in their memory) that creates uniqueness for the people to whom the brand must be made relevant if it is to succeed in the market place.

Brand image, or how others see and interpret the cues emanating from a brand, represents an outside-in perspective. A brand may play upon this outside-in image and adopt it as its own by directing marketing activities to enhance this perception. The Harley Davidson brand is a very good example of a brand that has been able to leverage its outside-in image to revive and strengthen the brand across different product ranges. A gap may exist between the desired images that the brand owner expected (or the way the brand is perceived by the target segment) and the actual image perceivable by the consumer. Such gaps may be positive or negative. If the gap is in favour of the brand, communication has an important role to play in the reconciliation process. If the gap is negative, then the brand's concept must be revised (Lambin, 2000, p.231). A gap may also occur between the desired image and the reality of the brand (that is, its know-how, its value propositions or its communication). It is the credibility of the position strategy that is at stake here. An image that the consumer holds of a brand is a crucial factor in consumers' evaluation of what a brand is worth to them and, invariably, the equity of such brand. It is the externally perceivable image that is of greater influence in consumer brand equity.

Proposition 3: The image of a brand has an impact on consumers' attitudes toward competing brands in a product category.

Given these distinctive differences between brand image and brand identity, brand image is preferred as the appropriate concept for this project. Brand image captures

the receptive side of identity because consumer interpretations of the brand influence the image they have about a brand. Through brand identity, firms can contribute to the strength of brand image. When looking at *consumer brand equity,* it is more appropriate to look at brand image as the *output* (or external) perception of *identity.*

Brand image represents consumers' assessment of a set of expectations raised by objective and subjective value propositions. Accepting that brand, like individuals, possesses an image that may be influenced by non-rational considerations in conjunction with rational influences creates the basis for examining the role of brand image in consumer brand equity.

In making a case for brand identity rather than brand image, Kapferer (1992, p.35) opines that "image is only a measure of what has been received and decoded" as opposed to the basic uniqueness that brand offers. Here lies the distinctiveness of brand image. Identity is that with which businesses infuse their brand. Brand image is the way in which consumers interpret such identifying factors. It is what consumers can remember about various instruments of brand, the association they make between these identifying input cues, and the image they consequently formulate about a brand.

4.6. CONSUMER PERCEIVED VALUE: CONSEQUENCES OF CONSUMER BRAND EQUITY

This section develops the research propositions further by examining their consequences of CBE. The central argument is that CBE facilitates and enables consumers to assess the value of competing brands. In turn their value perception determines their evaluation of different brands in a product category. Consequently, this influences consumer purchase decision. Given the importance of consumer perception of value, this research examines the notion of value in detail. To achieve this, the thesis looked at the notion of value by comparing its economic definition with its psychological definition. Three propositions derived from the discussion on the central theme of this section are explained below.

4.6.1. The Influence of Consumer Brand Equity on Brand Value Perception

From a neoclassical economic perspective, value can be defined as "utility that an individual economics agent (it could be person or it could be firm) gets out of consuming a given quantity of economic good" (Walras 1984, quoted in Boisot 2001, p.75). According to this definition, consumer value determination rests on utility factors such as price and quality. It also claims that functional benefit represents the basis for consumer purchase. The key determinants of value become the 'objective' utility that someone derived from consuming a particular item.

Empirical research such as those by Lancaster (1991); Watkins (1987), disagreed with this notion of value as 'functional benefit' only. They argued that interpreting value as being based upon objective function alone is unrealistic. This is because, in practice, it failed to embrace the subjective elements of value (Boisot, 2001) which empirical research (such as those by Bowbrick, (1992), Lancaster, (1991) and Watkins (1987) have shown to be an important basis for consumer value determination.

Others such as Hunt (2000) define value as the sum total of *"all benefits that consumers perceive they will receive if they accept a particular firm's market offering"* (p.32). Consumer behaviourists also argued that consumer evaluation of value is heterogeneous. Hence, consumers' value preferences are based on evaluation of the bundle of attributes and the experience the consumer seeks from the brand. Value preferences are not merely based on the utilitarian function that a brand may perform.

Following White, (1966, p. 91) this thesis defines value as a psychologically rooted need that provides self-gratification. In this sense *value* can be described as a representation of important, abstract life goals that consumers are trying to achieve (see for instance, Peter et al, 1999). Value also represents a belief that some condition or object is preferable to its alternative or opposite (Rook and Levy, 1999, p.171; Solomon, 2002). This follows from the argument above (section 4.4.1) that an evaluation of brands is made on the basis of their relevance to the consumer's ideal self.

Attributes such as 'luck' or miracle 'ingredients' may also influence brand purchase. Other brands are bought for their 'beauty', 'style' flavour' or social acceptability (Bowbrick, 1992). Brands may also successfully differentiate themselves by building irrelevant attributes that play no part in creating meaningful benefit (see, for instance, Carpenter, et al, 1994). Some examples should make this point clearer. Alberto Culver shampoo differentiates itself by adding silk to the brand. The consumer seems to accept the implication that one's hair will be silky. However, the company admitted that silk does not do anything for hair (*Adweek*, 1986, p.18). A brand such as Clairol Herbal Essence is also differentiating itself on the basis that it is made with mountain fresh mineral water. While these soft attributes cannot be measured objectively, they are as real and relevant to the consumer as any objective measure of value determination. This leads to the fourth research proposition that:

Proposition 4: Consumer brand equity exerts different levels of consumer perceived brand value on individual brands.

4.6.2. Differences in The Level of Perceived Brand Value

In section 4.4.1, this thesis maintained that brand relevance is important for consumers in their evaluation of brand value and that such value determines the magnitude of CBE for a brand. This argument rests on the premise that consumers are actively involved in a dynamic process of constructing their reality and notion of individual self. A sense of brand appropriateness to consumers' way of life or the fit of it with their notion of self may influence their perception of value. Hence, the consumer selects specific aspects of a brand that they feel best represents their ideal self. The consumer constructs patterns that suit their individual self from various brand communication elements and stimuli that are embodied by a brand. White (1966) asserts that the pattern that consumers construct from various brand communications may be of negative value. These do not grant them any gratification to assert their ideal self. But patterns may also be positive in nature and bring gratification that reinforces the consumer's self. Rothbard captures the significant implication of the above discussion as follows:

> Here again, it is very important to recognize that what is significant for human action is not the physical property of a good, but the evaluation of the good by the actor. Thus, physically there may be no discernible

difference between one pound of butter and another, or one cow and another. But if the actor chooses to evaluate them differently, they are no longer part of the supply of the same good. (Rothbard 1962, p.19)

In agreement with Rothbard's assertion, one could conclude that the most relevant conceptualisation of value that is economically relevant is that which the consumer adopts. Those factors that influence consumer evaluation of a brand –negatively or positively—as discussed above, represent the equity of the brands under consideration. The positive or negative brand equity attributable by consumers to each brand in their consideration list influences the perceived value of each brand. This informed the fifth proposition for this research.

Proposition 5: Consumer brand equity influences consumers' perception of value among competing brands in a product category.

4.6.3. Consumer Value Perception Influences Purchase Decision

Consumers are presumed to have basic needs. These needs underpin their want for a particular product and preference for a certain brand above others that could fulfil this basic need. Consumers may have similar needs that a posse of brands from the same product category can fulfil. However, each consumer is an individual whose idea of what constitutes value strongly depends on its psychological composition, irrespective of the objective contents of brands they are considering. Brand appeals to this divergence and numerous subjective attributes in the consumer. It is also the subjective attributes that influence their purchase decision. This explanation informs proposition six for this thesis.

Proposition 6: Consumer perceived value influences brand purchase decision.

4.6.4. Conclusion on Research Propositions

One central claim of this chapter is that consumer self-worth may be elevated through the act of purchasing a brand that is relevant to them. This is particularly so in Western economies where abundance is evident. Brands enable consumers to express their own individual value-system. Empirical findings to support this stance are

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reported by Bearden, Netermeyer and Teel (1989) and Kahle (1995). Consumer individualism is further reported in a popular campaign for Sprite, which dwelt on this theme by proclaiming that, "image is nothing. Obey your thirst". Of course one may argue that the Sprite image is appealing to the functional elements of a brand. But there are quite a number of other quench thirsting drinks that will serve the same function as Sprite. One may then look to the subjective elements of what Sprite stands for, as its distinguishing factor.

The subjective values of different consumers influence their value perceptions in different ways. Consequently different consumers' evaluations reflect their individual self. These value perceptions determine the market position of brands. For instance, consumers' perception of a high level of discrepancy in the types of value that competing brands provide may result in the identification of previously unidentified need. On the other hand, the perception that a brand is moderately discrepant may result in a differentiated position (Sujan and Bettman, 1989, p. 454). In both instances, this may result in a perception of superiority for the brand concerned.

This is particularly relevant in a situation where value refers to the psychological benefits that consumers perceive they will receive if they accept a particular firm's market offering. Consumers may, therefore, conclude that their evaluation criteria accord a particular brand with a favourable stance. This may in turn lead to attribution of favourable gratification to a brand in comparison to its competitors. This makes a favourably considered brand more valuable than another brand. Consumers may then assign a judgement of superiority to their favourite brand relative to its competitors. They may then translate this into an evaluative decision-making judgement that the brand is worth more than any other brands. This may influence their propensity to purchase such a brand.

4.7. FORMULATING RESEARCH HYPOTHESES

Following the propositions developed in sections 4.5 and 4.6, specific hypotheses were formulated to translate our propositions into operational terms. These were formulated as alternative hypotheses and outlined as follows:

Hypothesis 1, which refers to the effect of brand relevance on consumer attitudes towards brands and their evaluation of competing brands in a product category (i.e. proposition 1), is as follows:

> *Brand relevance will have a significant impact on consumer attitudes towards competing brands in a product category.*

Hypothesis 2, which refers to the effect of brand history on consumer attitudes towards brands and their evaluation of competing brands in a product category (i.e. proposition 2), is as follows:

> *Brand history will have a significant impact on consumer attitudes towards competing brands in a product category*

Hypothesis 3, which refers to the effect of brand image on consumer attitudes towards brands and their evaluation of competing brands in a product category (i.e. proposition 3), is as follows:

> *Brand image will have a significant impact on consumer attitudes towards competing brands in a product category.*

Hypothesis 4 refers to the effect of differing levels of consumer perceived value on the brand equity of individual brands competing in a product category (i.e. proposition 4). This hypothesis is as follows:

> *Consumer perceived value will exact different levels of consumer brand equity on individual brands.*

Hypothesis 5 refers to the effect of differing levels of consumer brand equity on the individual brands competing in a product category (i.e. proposition 5). This hypothesis is as follows:

Consumer brand equity will influence the consumer perceived value of competing brands in a product category.

Hypothesis 6 refers to the effect of consumer perceived value on consumer brand purchase decision (i.e. proposition 6). This hypothesis is as follows:

Consumer perceived value will influence brand purchase decision.

The research constructs identified in the hypotheses above were defined in section 4.3 and 4.4, and these constructs, as defined, will be measured in chapter six. However, before measuring these constructs, we will briefly explain the process for evaluating our hypotheses.

4.7.1. Evaluating The Research Hypotheses and Baseline Null Model Hypothesis

In evaluating the six alternative hypotheses that we have formulated for our research, the intention is to bring statistical evidence to bear on the hypotheses. Therefore, our statistical test will look at the probability that there is no relationship between the antecedent factors for CBE and the consequences of CBE. If the result is statistically significant, then the *null hypotheses* will be rejected and we will accept the alternative hypotheses outlined in section 4.7.

Having stated our research hypotheses in section 4.7, it is worth noting the distinction between our research hypotheses outlined in that section and that of the baseline or *null model* hypothesis, which is the one that is traditionally used in SEM. In substantive hypothesis testing procedures, the "null hypothesis can be rejected or accepted depending on the results of a test of statistical significance" (Hair et al, 1998,

p. 329). In contrast, in baseline null model, the aim is *not to reject* the null model. This is because the *null* model is hypothesised to be the simplest model that can be theoretically justified. The most common example is a single construct model related to all indicators with no measurement error (Hair et al, 1998, 582).

As already stated, in evaluating the baseline *null model* hypothesis, the aim is *not to reject* the null model. This is because "a null hypothesis that a model fits exactly in some population is known *a priori* to be false" (Diamantopoulos and Siaguaw, 2000, p.86). Therefore, in testing the model hypothesis, we will be assessing the degree or lack of fit of the model. This is done by using the chi-square statistic, the relevant degrees of freedom calculated as $\frac{1}{2} \kappa (\kappa +1) - t$, where k = number of observed variables and t = number of parameters to be estimated (Jöreskog and Sörbom, 1996).

To recap, the first aspect of our research focuses on propositions 1, 2 and 3, which are formulated as operational hypotheses 1, 2 and 3. The question to be answered with these hypotheses is: *what are the antecedent factors that influence consumer evaluation of a brand?* In the second aspect of our investigation, propositions 4, 5 and 6 are formulated into operational hypotheses 4, 5 and 6. Having identified the underlying factors that influence consumer brand equity evaluation, hypotheses 4, 5 and 6 focused on answering the question: *what are the consequences of consumer brand equity on consumer value perception?*

In the following chapter, the focus is on the method of the empirical study that was designed to test these hypotheses.

4.8. CONCLUDING REMARKS

This chapter justified the need for reconceptualising CBE. The chapter then advanced theoretical explanations for the phenomenon of CBE. These theoretical explanations laid the ground for the six research propositions discussed in the chapter. Three of these propositions explained different antecedent factors that may influence CBE. The fourth proposition explains that consumer brand equity exerts different levels of consumer perceived brand value on individual brands. Two other propositions discussed the consequences of CBE for consumer value perception, brand consideration in a product category and purchase decision-making. The key themes of the chapter were (i) brand equity represents the codification and abstraction of psychological benefits that enables consumers to evaluate a brand; and (ii) consumer value perception is very much influenced by perceptions of individual self and the degree to which a brand appropriately reflects these perceptions of self.

CHAPTER FIVE

METHODOLOGICAL FRAMEWORK

5.0. ORGANISATION

This chapter provides an overview of the method used to investigate the research reported in this thesis. The overview includes specific issues such as the nature of the research, research design, the development of the research instrument and data collection. It also entails the operational process of the main study and data analysis.

The chapter is divided into eight main sections. Section **5.1** is a brief introduction to the nature of the investigation, the expected outcomes of the investigation, and how this expectation influenced the research approach. Section **5.2** offers a brief overview of the focus group discussions conducted. Section **5.3** provides the research design by discussing the research population, the sampling frame and the product market for the investigation. The discussion in **5.4** centres on the practical details involved with the development of the research instrument. Section **5.5** discusses the fieldwork for the main study conducted. A discussion of the data analysis technique is given in section **5.6**. The main survey is reported in **5.7**, and the chapter concludes in **5.8**.

5.1. INTRODUCTION

The previous chapter explained the conceptual framework that underpins this research. The primary investigation that stems from the propositions discussed in that chapter involves the determination of the antecedents and consequences of CBE. This chapter outlines the nature of the empirical phase of this investigation. It outlines the nature of the investigation, the design and the information that will be needed to answer the research questions. The chapter will outline the process of developing the research instrument in order to ensure that my research hypotheses are assessed validly and reliably.

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A general overview of chapter five is depicted in figure **5.1**.
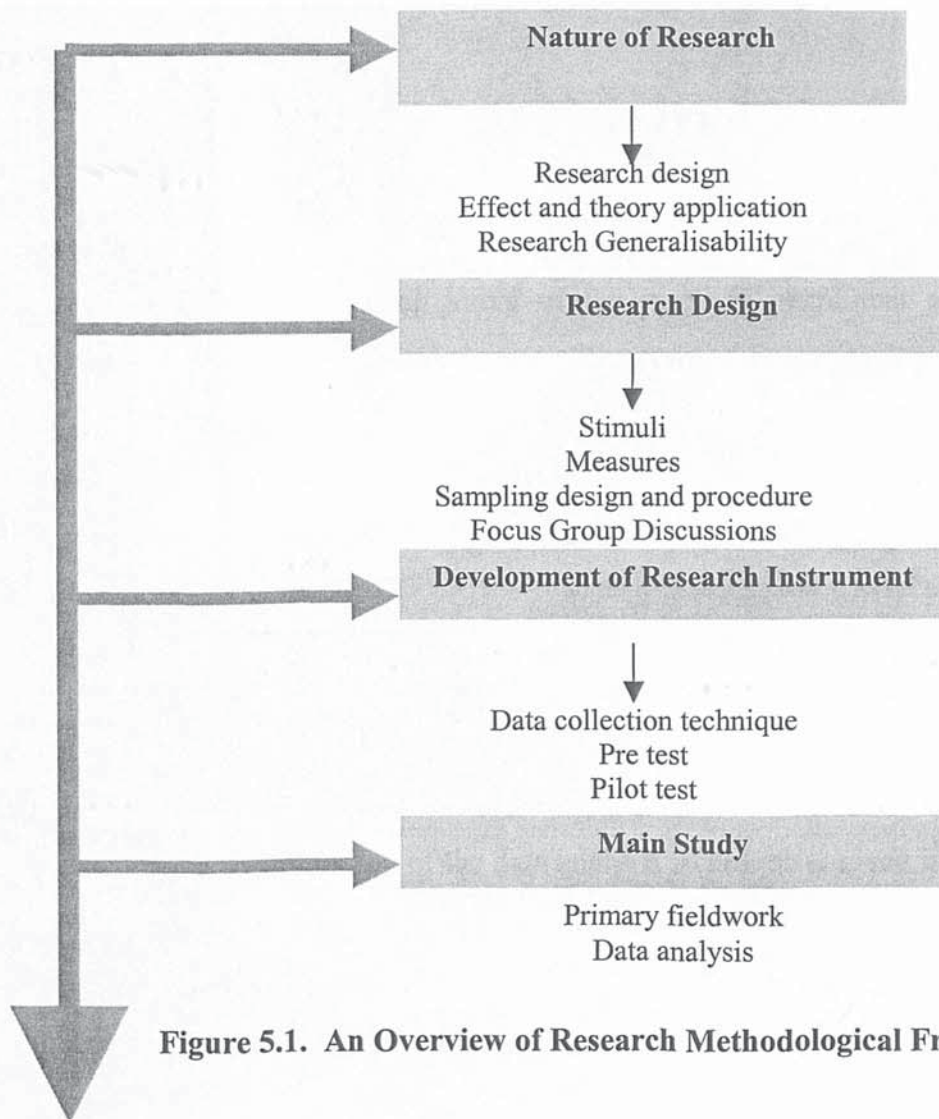
Figure 5.1. **An Overview of Research Methodological Framework**

5.1.1 Research Approach

This section is an evaluation of the nature of the specific methodology for assessing the research proposal. The section will also justify the appropriateness of the research technique I have adopted, and it will also explain the expected outcome of the research in terms of its overall contribution to knowledge.

Approaches to research investigation can be classified into three categories: the explorative, the descriptive and the causal. These three techniques are distinct from each other. However, the differences between them may not always be as great as their categorisation implies (Kumar, Aaker, and Day 1999; Lehman, Gupta and Steckel, 1998; Pedhazur and Schmelkin, 1991). In fact, there are some definite similarities and inter-connections among the three research techniques. For instance, while exploratory research can be carried out on its own, descriptive research can be a dimension of either explorative or causal research. This is in the sense that descriptive and exploratory research may form the starting node of causal or experimental research. Equally, causal research can be exploratory in nature.

5.1.2 The Nature of this Research

This research is exploratory in nature. Explorative research involves seeking insights into the general nature of a problem. An exploratory study is particularly helpful in breaking broad general problems into smaller, more precise sub-problems in the form of hypotheses and propositions. It may also involve looking at possible alternative explanations within competing ideas and variables (Churchill, 1999; Krueger and Casey, 2000). When exploratory technique is used for a study, its main objective is that of offering conceptual explanation through empirical testing. This objective is to be contrasted with that in which one seeks specific generalisable findings (Churchill, 1999; Kumar et al, 1999).

Exploratory techniques may also be effective for conducting research into an existing concept from which a 'new' conceptualisation is emerging. An initial clarifying study in the form of focus group discussions was carried out as part of this investigation. The purpose of this was that of exploring the concept of consumer brand so as to effect a 'new' conceptualisation of the concept. The outcome of this will be reported in section 5.2.1.

The explanation offered above led to two important considerations. Firstly, a technique that facilitated "a theory and application investigation" was deemed

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appropriate for this research. As a theory application investigation, this research examined the empirical reality of CBE. The purpose of this was to subject the proposals presented in chapter four to a falsification process. Falsification would either confirm or reject the validity of these proposals.

Secondly, this investigation needed to adopt a technique that would facilitate the observation of chronological occurrences. This order of occurrence is important in any 'cause and effect' research because one event cannot be considered the 'cause' of another if it occurs after the other event. For instance, consumers' attitude towards a brand is influenced by *learned* events that preceded consumers' favourable or unfavourable predisposition. Such learning has a direct effect on their brand attitude formation. Brand attitudes in turn reinforce consumer preferences for a certain brand rather than its competitors. This process of attitude, preference and expected future behaviour may occur in a particular order of occurrence. This order of occurrence is important to this investigation. The order of occurrence is important because:

> By definition, an effect cannot be produced by an event that occurs only after the effect has taken place. However, it is possible for each term in the relationships to be both a "cause" and an "effect" of the other term. (Selltiz, Wrightman and Cook, 1976, p.85)

In the case of this investigation, the consideration is of specific factors that may influence consumer attitude and preference for a brand and their perception of brand value. The two considerations (namely: (i) designing theory application research, and (ii) the need to observe the sequence of occurrence of variables) influence the determination of the approach to this investigation. Techniques for investigating 'cause and effect' will therefore be considered to determine their appropriateness.

5.1.3 'Causal' Research: The Approach to the Current Investigation

A causal research is concerned with the determination of the cause and effect relationships that may exist between variables. An investigation conducted with a causal technique assumes foreknowledge of certain relevant variables. It also assumes that one can hypothesise a known type of relationship between variables (see, for

instance, Kerlinger and Lee 2000; Lehman, Guptal and Steckel 1998). In causal research, the central issue is to isolate the 'cause' and to determine the influence of this 'cause' in bringing about the 'effect'. Therefore, one is essentially evaluating whether one variable determines the value of other variables, thereby confirming or disproving the hypothesised relationships.

Causal research involves two levels of classification: *manifest* variables and *latent* variables (Cook and Campbell, 1979). These are seen as a means of monitoring specific patterns of occurrences (manifest) that could help in the comprehension of what could be one of the probable or likely causal connections (latent). In the context of this investigation this relationship is depicted in Figure 5.2.
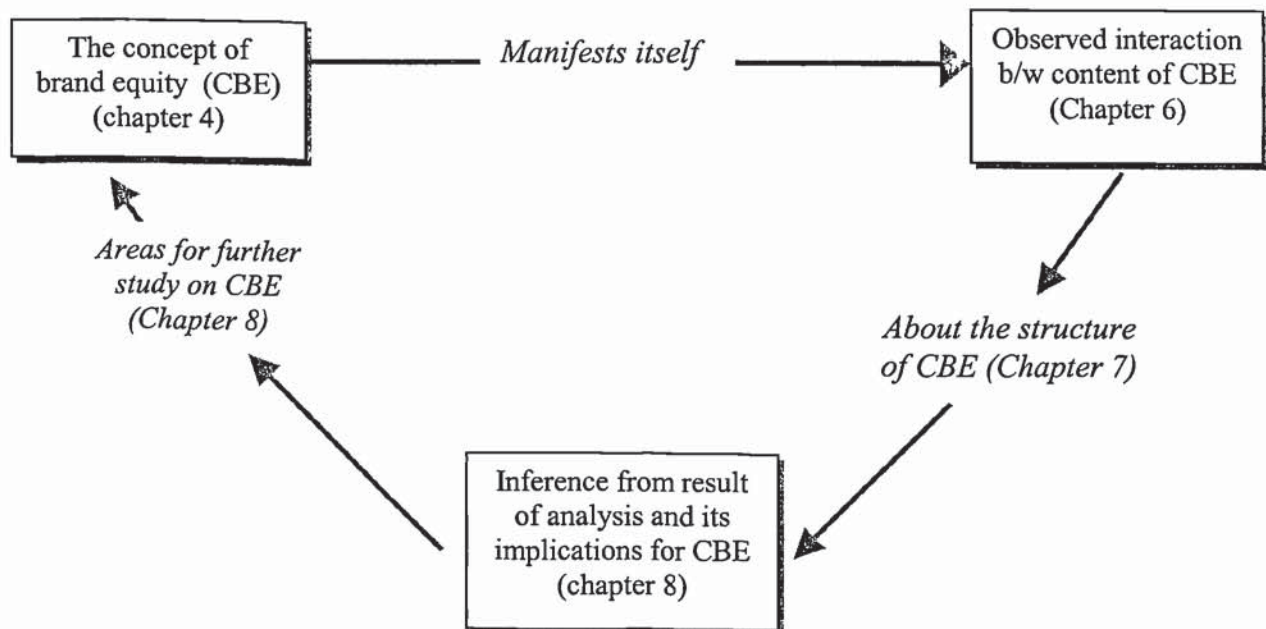
Figure 5.2 Inferential Process of Consumer Brand Equity Research (adapted from Black, 1999, p.34)

A two-stage research design will be employed to achieve the research objectives. The first phase involves using an exploratory research design to clarify the concept of CBE. The first phase of this exploratory research involves literature review and focus group discussion (see section 5.2). The second phase involves conducting a primary survey. Before elaborating further on the design of the primary survey for this

investigation, the next section discusses the expected level of generalisability for the research outcome.

5.1.4. Expected Level of Generalisability

The expected level of generalisability is an important consideration in designing a research study (Kerlinger and Lee, 2000; Leone and Schultz, 1980). This is because it determines how one deals with technical issues such as sampling frame and research design. Most importantly the expected level of generalisability affects the broader issue of distinguishing between basic and applied research (Calder and Tybout, 1999; Kerlinger and Lee, 2000).

Generalisation is defined as that which is empirically known about a phenomenon and is also universally applicable to other similar situations (Malhotra and Birks, 1999; Kumar, Aaker and Day, 1999). The pertinent question for consideration at this stage is the following: can the conclusion drawn from this research be validly applied to settings beyond that for which the study was designed?

In answering this question, it is important to distinguish between basic and applied research. According to Kerlinger and Lee (2000, p.474),

> In basic research...generalizability is not the first consideration, because the central interest is the relations among variables and why the variables are related as they are. This emphasizes the internal rather than the external aspects of the study.

The emphasis in a basic research is on the examination of theoretical issues designed to add 'information and knowledge to a field of study' (Kerlinger and Lee, 2000, p. 474). Applied research, however, is concerned with solving a specific problem. Using information and theoretical insight found in a basic research study, applied research enables one to transfer theoretical findings to determine how they can solve a practical problem. Many of the innovative and new products developed for the market were discovered through basic research. For example, laser technology was discovered through basic research on particles of light called photons. This

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understanding of photons enables scientists to create lasers, used in many applications in numerous areas.

In distinguishing between basic and applied research, Calder and Tybout (1999) identified two ways of applying research to real life situations. The first approach, termed effect studies, is designed to be:

> ...applied by mapping observed events directly into other settings... similar enough...by virtue of similarity to the other settings (Calder and Tybout, 1999, p.2).

Unlike the physical sciences, inferential linkages need not be made between the theoretical settings and the observed effects. In instances like this, it is the actual effects that are generalised from the research setting into practice. Theory functions as an abstraction that offers conceptual explanations. It is not meant to be the sole source of explanation of events (for instance, as is the case in causality in the physical sciences). This abstraction is not merely an informed 'vision'; rather, it is a theoretically plausible explanation based on knowledgeable understandings of issues relating to CBE gathered from the literature as well as industry experience. Clearly the crucial characteristic of this type of research is that:

> Effects observed in the research are not expected to generalise directly to other settings. Rather, effects are used to test the theory. And it is the theory that is expected to apply to other settings. (Calder and Tybout, 1999, p.2.)

The relationship between basic and applied research is epitomised in Einstein's theory of relativity. His theory explains that four main types of forces govern natural phenomena. These are the strong force, electromagnetic force, the weak force and the gravitational force. This epitomises a typical basic research from which spectacular applied research developed. The solar physicist, for instance, carries out research on stars or nuclear fusion by taking for granted findings from Einstein's theory.

In management, Penrose's theory of the growth of the firm (Penrose, 1995) is a basic research whose application is evident in applied research on innovation, entrepreneurship and strategic management. In psychology Maslow's theory of need is an obvious example of a basic research whose application reaches far beyond its

original setting. These examples epitomise the relationship between basic and applied research.

5.2. RESEARCH DESIGN

In distinguishing between these two types of research, Calder, Phillip, and Tybout (1981) and Tybout and Calder (1999) emphasised the need for clarity between theory application and effect application. This distinction is important in order to use appropriate design to reflect the intended application of the research. Central to this design requirement is the need for appropriate research settings that correspond to, and closely match the intended application. The main consideration, therefore, is not that an 'effect' study guarantees external validity, rather that theory and effect application research have different roles to play in application to 'real-life' situations.

Specifying the nature of this research affects its design. It also determines the approach to three key issues. These are: (i) the specification of the relationship between the research constructs (4.3.2) (ii) appropriateness of the research sample frame (5.4), and (iii) justifying the method of analysis (5.7).

A research design entails the blue print or '*plan of study used as a guide in collecting and analysing data*' (Churchill, 1999, p.98).

The next section discusses the explorative research carried out, research stimuli, sample, and questionnaire development and data analysis.

5.2.1. FOCUS GROUP DISCUSSION

Focus group discussion is a widely used qualitative method. It can be used for most purposes including exploratory, clinical and confirmatory research (Kumar, Aaker and Day 1999; Easterby Smith et al, 1992). The process involves obtaining possible ideas from a group of respondents by discussing a particular topic or problem. It is a

face-to-face, non-directive and open-ended interview between the moderator and the group participants. It relies on the social interaction between the moderator and participants to elicit information. Focus group discussion is directed towards understanding participants' perspectives on their purchasing experiences as expressed in their own words. Hence, emphasis is placed on the outcome of group interaction in discussing issues pertinent to the topic. The primary role of the moderator is therefore to foster group interaction and discussion. It is also the moderator's role to ensure that the discussion does not deviate from the topic.

Focus group discussions were conducted to explore and provide further insights on the construct of CBE. The aim of the focus group discussions was not to project findings from the discussion onto a larger population. The aims were to (i) explore and describe the phenomenon of CBE, and (ii) to define the construct of CBE in terms of key themes that epitomised the concept in reality. Four focus group discussions were conducted for this purpose. The details of thee discussions are provided below.

5.2.1.1. Focus Group Respondents

The first key criteria for recruiting participants for these discussions was that of looking for those who had the greatest amount of insight on brand purchasing in general. Therefore, consumers between the ages of 18 and 35 years were targeted for possible recruitment for the focus group discussions. This targeted group included: (i) homemakers, (ii) doctoral researchers, and (iii) administrative staff all under the age of 35. This informed the sampling strategy of studying a relatively small number of consumers who purchase branded items regularly. Specific groups with shared commonality such as age, family character, gender or similarities of occupation were sought and recruited. They also represent a good sample that will provide insight about what they learnt from regular brand purchase. This facilitated shared value and social interaction, and minimised group incompatibility.

In all, twenty-one participants took part in four different discussion groups. Two of the four discussion groups consisted of six participants, one with five and one with

four participants. These participants include 4 parents from Bournville Infant and Junior Primary School. Another group consists of 5 doctoral research students, 1 research co-ordinator from Aston Business School (ABS) (Appendix 1) 1 practising solicitor, 1 full time homemaker and 4 administrative staff at ABS. The fourth group consists of 5 male participants including two lecturers and three doctoral students from the faculty of law at the Birmingham University.

This investigator moderated the focus group discussions. The discussions lasted between 55 minutes to 70 minutes and were recorded on an audiotape supported with hand notes taken by the researcher. Although the discussion was natural and spontaneous in nature, specific questions were developed with prior consideration for the key issues. Questions on topics such as brand, influences on brand purchase, the nature of brand choice and basis for brand selection were pre-prepared.

The discussion was general at first (this encouraged the group to talk), before moving on to specific and focused topics mentioned above. To achieve this, the moderator introduces the topic, guides the discussion by asking specific questions, and ensures that participants are able to discuss freely (Krueger and Casey, 2000). There was no pressure on the participants to reach consensus on any issue. Rather, participants were encouraged to reach an understanding on issues of common concern.

The first discussion conducted explored the issue of brand and its influence on purchasing in general. However, the discussion broadened the issues of buying branded items in a situation where one is not the person consuming the brand. Most of the participants in the first group agreed that in such circumstances, the greatest consideration is on the intangible elements of the brand. The orientation of the discussion was purposefully changed for the second discussion. This was done to incorporate some of the key ideas that emerged from the first discussion. Krueger and Casey (2000) observed that adjusting the nature of questioning during focus group discussion facilitates natural discussion and enriches the discussion in general. This practice is seen as contributing to the perception of inconsistency associated with

focus group discussion (Wade 2002, p. 47). However, it also enriches and provides insightful information relevant for our research purpose.

5.2.2. Analysis

Numerous comments were obtained from the group discussions conducted. In deciding upon the method of analysis that is best suited for interpreting them, several alternatives were considered. Kruger and Casey (2000, p.127) suggested that the purpose of one's investigation should determine the intensity and approach to data analysis. In circumstances where group discussion is the main empirical research, then an elaborate analysis of minute comments is important. However, in this investigation the focus group discussion is to enrich preliminary clarification of research constructs. Hence, a thematic approach is adopted for analysing the data. The thematic analysis is based on continuous systematic and sequential examination of the group discussion.

The thematic analysis approach captures the range of impressions and draws out themes in the context of the research topic. This approach enables one to distil a small number of important issues from the data. As Patton (2002, p.7) observed:

> It is common in qualitative analysis for mounds of field notes and months of work to reduce to a small number of core themes. The quality of the insights generated is what matters, not the number of insights.

Following this approach, a small number of core themes were identified from the four discussions conducted. Numerous issues such as packaging, pricing, and advertising company names were discussed during the discussions, and a specific interpretation was based upon key issues relating to subjective perception of brands.

Nearly all participants agreed that product function was not a major basis for their selection of a particular brand. For example, in responding to a comment by another participant that she worried about the effect of the chemicals in washing detergent on her daughter's skin, a young mother of two observed that:

> *"As far as am concerned I will assume that the company will realise that customers will know if their products are not up to scratch after some time. So*

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I do not worry about whether a detergent works or not, although I may use non-bio if I am washing their underwear or summer clothes."

Another participant shared the same view but explained that the situation will be different for her if she is buying a car or if she is going on holiday.

"If I am buying a car or going on holiday, then I may ask for further information from many places."

In these instances, participants clearly put the onus of ensuring the quality of the brand on the manufacturers. Their assumption could be that a bad quality brand carries an economic penalty for the firm itself (Erdem and Swait, 1998).

Another participant at a separate discussion group expressed a similar view, this time in relation to chocolate and its functional content saying that:

"I wouldn't know the differences between...cocoa from Ghana from that of Ivory Coast and I don't even know where these countries are and don't see any reason to know anyway."

This was in reply to one of the participant's earlier comments that her husband worked for Cadbury's at the Bournville factory and that she had learnt from him that Cadbury uses the best cocoa beans in making their chocolates. Her husband told her that the best cocoa came from the West African countries of Ghana and Ivory Coast (Cote D'Ivoire).

Some participants across three groups expressed views that previous exposure to specific brands forms the primary basis for deciding among competing alternatives for the same product. Furthermore, participating consumers expressed the view that brand value is intuitively evaluated in relation to accumulated facts learnt over time about a brand. In short, brand history is a distinctive factor in consumer purchase decision-making. However, the process of consumer appraisal of a brand changes constantly. This is because various environmental reinforcements and specific brand communications are taken into consideration. Consumers up-date their previously held assumptions about competing brands as these changes become available to them. However, while the consumer assimilates such changes, perception towards a specific brand seems to be relatively stable over time.

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5.3. PRODUCT MARKET AND SAMPLE FRAME

5.3.1. Product Market and Brands

The product category for this investigation is in the fast moving consumer goods (*fmcg*) sector. The term *fmcg* is commonly used to describe the consumer product sector as a whole. This is in contrast to the clearly defined nature of Standard Industry Classifications (SIC). What is clear is that specific product categories are recognisable as belonging to the *fmcg* sector. One of these is boxed chocolate and that will be the product sector for this investigation.

Boxed chocolate was selected as a particular product within the fmcg category for this study for three reasons. Firstly, although both functional and non-functional brand cues may influence attitudes towards brand (Riezebos, 1994), in the context of this investigation, the contribution of non-functional brand attributes is recognised as the primary basis for conceptualising CBE. Boxed chocolates represent a product category in which non-functional factors influence consumer purchases. This is because it is difficult to separate the actual influence of functional components such as cocoa, added supplements (e.g. orange, coconut, and hazelnut) and milk on consumer purchasing behaviour. Such added supplements may produce resultant changes in a chocolate, consumers may not have a specific 'like' for the product. However, they may have preference for it because they like the brand that produces such added variety.

Secondly, there is no industry standard for what proportion of cocoa butter and vegetable should go into making plain chocolate. For instance, there is no standard for the ratio of cocoa in a dark chocolate, or the ratio of milk in milk chocolate. This makes evaluation based on intrinsic quality content more difficult for the consumer.

Thirdly, chocolate has a high hedonistic value (e.g. Laurent and Kapferer, 1985) as well as a high perceived sign value of importance. The combination of high sign value and hedonistic character creates a reliable and valid measure for the branding strategy and association dimensions.

These three reasons highlight chocolate's suitability as a product category for consumer brand equity.

There is no doubt that other product sectors such as the car industry, charitable organisations and financial services are increasingly branding their offerings. However, there are more branded products within the *fmcg* than any other sectors. The *fmcg* is one of the most widely researched sectors in marketing and market research (Kumar et al, 1999). The *fmcg* is also a sector in which consumers frequently make more regular purchases. Consumers are also more likely to make decisions based on branding issues when purchasing from the *fmcg*.

Various subjective factors, such as those based on specific non-functional aspects of brand, influence brand purchase in the *fmcg* category.

5.3.1.1. Product Market: Boxed Chocolate

Mintel International Group Limited (Mintel) investigated the boxed chocolate market in its Target Group Index (TGI) series. Mintel presented an analysis of the boxed chocolate sector in a report published in December 2000. The analysis provided a detailed breakdown for the market penetration, it analysed usage by demographic sub-groups and it also offered future projections for the market. According to Mintel, the boxed chocolate market in the UK for the year 2000 was £724 million. Since 1995, this market has grown by 14% in terms of volume and 16% in terms of value. This represents a higher percentage increase in volume than the overall chocolate confectionary market. The boxed chocolate market can be broadly segmented into four categories.

Luxury/premium: defined as handmade chocolates such as 'Belgian', 'Continental', and top of the range boxed chocolates from larger manufacturers. These are often sold through specialist '*chocolatiers*' and in dedicated fixtures in stores such as Thorntons, Maxwell & Kennedy, Lindt and Suchard. According to Mintel (ibid.) multiple grocers are also producing own-label ranges that are increasingly finding favour with consumers. Even though own label luxury chocolates lack the exclusivity

of *chocolatier* brands, they are popular with the consumer because they offer luxury chocolates at a traditional price.

Traditional boxes: these are those in mainstream distribution from main brands that are house names in the UK. These include Cadbury's Milk Tray, Terry's All Gold, Nestlé's Black Magic, and Rowntree Quality Street. Ferrero Rocher, a brand that has successfully created an image of luxury via advertising and packaging, is also regarded as one of the traditional boxes.

Family Sharing: these are typically twist-wrap products such as Cadbury's Roses and Miniature Heroes. Others are those containing one variety from many brands such as Quality Street Favourites.

Mint-flavoured chocolates: these are varieties such as After Eight and Elizabeth Shaw.

It is the traditional segment of the boxed chocolate category that will be the selected sample for this investigation. The justification for selecting this segment will be presented in section 5.3.2.

5.3.1.2 The Boxed Chocolate Buyer and The Buying Occasion

The Mintel report investigated consumer usage of boxed chocolates. The report found that boxed chocolate appeals to a wide range of consumers. This is because it is a convenient gift for a range of occasions. It can also be purchased for personal consumption. Following two years of decline, the market increased slightly in the year 2000.

The general increase in the boxed chocolate market is particularly attributable to success in the traditional and family-sharing segment. The majority of the UK population buy boxed chocolate as gifts. These gift-giving occasions are concentrated around Christmas, Easter, Mother's Day and Valentines Day. These represent peak periods when many people buy boxed chocolate as 'safe gifts'.

Boxed chocolates are also popular as birthday, 'thank you' and romantic gesture gifts. The various buying occasions as indicated in Mintel (2000) report is presented in Table 5.1.

	1996	1998	2000
Base: adults aged 15+	1,033	1,008	1,026
To have in the house at Christmas	48	35	41
As a gift for someone at Christmas	51	42	34
For someone's birthday	34	37	28
To say 'thank you'	31	33	28
For Easter	14	20	21
For Mother's Day	23	30	19
To take to someone in hospital	17	17	12
For myself as a treat	16	13	10
When I couldn't think of another suitable gift	14	12	10
To take when visiting someone for the day/weekend	14	12	9
As a romantic gesture	11	10	7
Other occasion	8	6	6

Table 5.1 Purchasing Occasions and Reasons for Buying Boxed Chocolates

In terms of buyers, Mintel's Target Group Index reported that over half of men buy boxed chocolate. But heavy usage of boxed chocolate is skewed towards women. This is partly attributable to the fact that women are most often responsible for supermarket shopping where an increasing proportion of the market is purchased as part of a weekly shop on behalf of others in the household. Table 5.2 adapted from Mintel (2000) provides the latest available figures on usage pattern for boxed chocolate in the UK.

	All users	Heavy users	Medium-users	Light users	Non-users
	%	%	%	%	%
All	56.9	7.4	12.5	36.9	43.1
Men	52.8	6.4	11.0	35.4	47.2
Women	60.8	8.4	14.0	38.3	39.2
15-24	52.1	11.5	14.0	26.6	47.9
25-34	57.5	7.3	13.3	36.8	42.5
35-44	61.0	6.4	14.5	40.1	39.0
45-54	58.8	6.2	11.9	40.7	41.2
55-64	57.2	6.1	10.7	40.4	42.8
65+	54.2	7.3	10.6	36.4	45.8

Table 5.2 Usage Pattern for Boxed Chocolate in the UK

Source: TGI, BMRB 2000/Mintel Taken from the 2000 TGI survey of 26,462 adults)

5.3.1.3. Forecast for Boxed Chocolates: Sample Justification

In terms of age, Mintel reported that heavy users of boxed chocolate are "particularly likely to be aged 15-25, traditionally a high group for confectionery". Mintel's report concluded that they are the most likely age group to be heavy purchasers of boxed chocolate. Therefore, the number of 15-24 years old in the population has been used as the final factor for forecasting for the boxed chocolate segment. Table 5.3 presents the forecast for the boxed chocolate market.

	At Current prices (£M)	Index	£M	Index
2000	724	100	724	100
2001	743	103	731	101
2002	774	107	749	104
2003	801	111	757	105
2004	826	114	762	105

Table 5.3 Forecast of the Boxed Chocolate Market by Value 2000-2004
Source: Mintel International Group Limited

The sample frame that will be used for this investigation falls between ages 18-25. This is an age group that falls within the range of heavy users of boxed chocolate. The sample age group is also a significant subgroup upon which Mintel future growth forecast for boxed chocolate is based (Table 5.3). Therefore, one can confidently justify the student as an appropriate sample for boxed chocolate.

5.3.1.4. Selected Brands of Boxed Chocolate

Five brands of boxed chocolate will be the stimuli for this investigation. These were the brands selected from the traditional segment of the boxed chocolate sector. These are, Cadbury's Milk Tray, Ferrero Rocher, Terry's All Gold, Rowntree Quality Street and Woolworth Gold. Four of the brands are in the traditional and boxed chocolate category. The fifth, Woolworth Gold, is a premium product in terms of its composition. However, Woolworth Gold is in the same price range as traditional boxes, rather than the premium category.

5.3.2 Population

The population of interest in this investigation is consumers in the UK. The UK consumers are deemed suitable as the specific population of interest because they are one of the most brand conscious populations in Western economies. There are other Western economies such as Japan, USA and Canada that have more profound affinities with brand than the UK. However, the UK consumers are almost as 'brand conscious' as those leading brand consumption nations mentioned above. This high level of brand consumption in the UK will enable one to measure the subjective influences on consumer brand preference formation.

5.3.2.1 Sample Frame

The sample frame for this investigation is Aston Business School. In terms of the sampling procedure, there are several types of sampling technique that could be used. A random sample will be drawn from second and fourth year students on BSc Administrative Studies; Marketing; Psychology and Management courses at Aston Business School (ABS). Home postgraduate students on full time M.B.A. and MSc and doctoral research students will be included in the survey sample. Appendix 3

presents the sample details of respondents drawn from the UK student population at ABS.

Within the student sample, gender differences will be excluded from subsequent analysis for two reasons. Firstly, students represent a homogeneous group within society at large. As such, findings from one group are generalisable to other student groups (see for instance Lynch 1999, Calder and Tybout, 1999). The appropriateness of this sample is explained further in 5.3.2.2. Secondly, as indicated earlier in Table 5.2 above, the differences between men and women purchasing chocolate does not seem great enough to constitute significant sources of error for a research of this nature (see section 5.1.2).

5.3.2.2   Sample Frame Justification

The main consideration for deciding on a student sample for this study is based on its appropriateness for the research purpose and nature (see section 5.1.2). In this type of investigation, three criteria are regarded as important in determining sampling appropriateness (see, for instance Kumar, Aaker and Day, 1999, p.400; Oppenheim, 1992). These are: (i) research objectives, (ii) reproducibility of sample, and (iii) convenience. These criteria represent important considerations in sampling for this study. First, the investigation in this study is essentially a model building and theory testing. A crucial consideration in this investigation is the homogeneity of the sample frame. This is essential for reducing sampling error. To ensure this, Kumar et al (1999, p.378) noted that:

> In developing sample plan, it is wise to look for natural subgroups that will be more homogeneous than the total population.

This approach to sample frame selection is deemed important to increase similarities within the groups. This requires sampling respondents from homogenous groups sharing similar characteristics and dimensions that are likely to influence the variables of interest (Calder and Tybout, 1999; Oppenheim, 1992). With a homogeneous sample, a more robust test of theory is also enhanced leading to better theoretical insight than is possible with a heterogeneous sample. Secondly, reproducibility is

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improved within such a group over a relatively long period of time since they can be contacted for a follow up assessment. The sample frame is less expensive and least time consuming. They are also easily accessible and co-operative. Thirdly, given the relatively large sample requirement of the technique of analysis (section 5.6.2) obtaining useable data is made easier than would otherwise have been possible. For this investigation, it is appropriate to use student participants.

5.4 QUESTIONNAIRE DEVELOPMENT

Following the above considerations, the next step was that of designing the measurement instrument for this investigation. Peterson (2000, p.4) noted that the art of questionnaire design is an imperfect process. This is because it involves the development of a structured instrument that will facilitate effective communication between researcher and participants. Each questionnaire is, therefore, unique in terms of the investigation for which it is developed. This recognition led to the consensus that questionnaire development is an imperfect process with no standard procedures for developing a good one (Churchill, 1999; Kumar et al, 1999; Malhotra and Birks, 1999). However, there is a widely recognised procedure through which a consistent and reliable questionnaire can be developed. The process that will be adopted to guide the development of the questionnaire for this investigation is that of Malhotra and Birks (1999, p. 320) and Peterson (2000). This process is depicted in Figure 5.3.
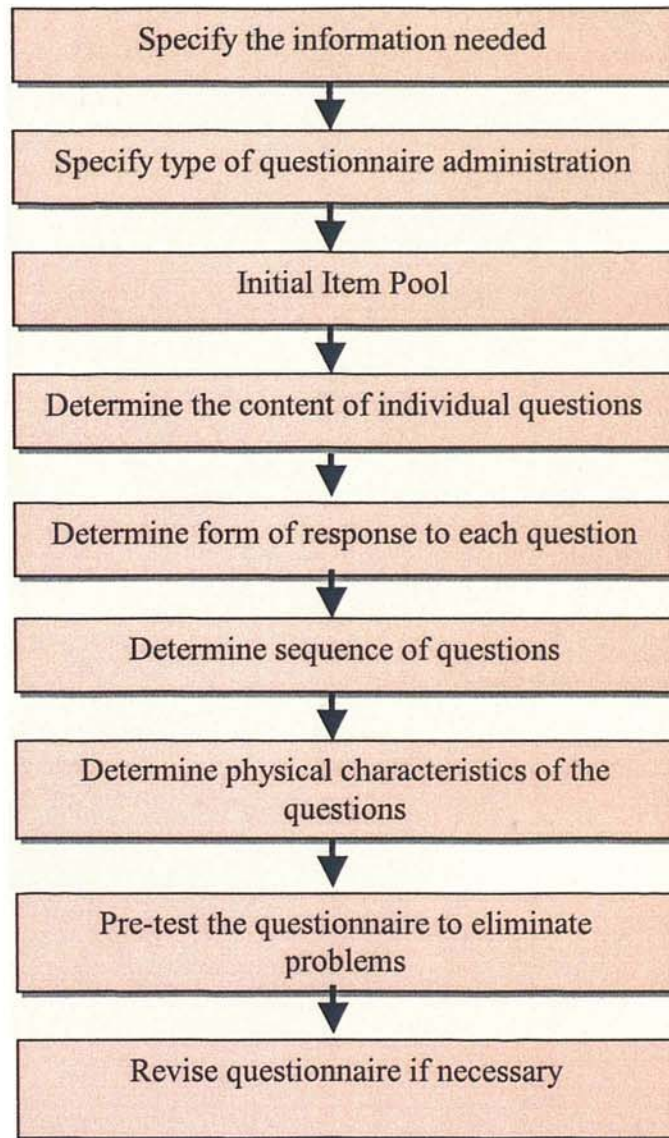
Figure 5.3 Questionnaire Design Process (Adapted from Malhotra and Birks, 1999, p.320)

5.4.1 INFORMATION SOUGHT

The first task in constructing an effective questionnaire is to review the information that will be required for answering the research question (Churchill, 1999). Such information is primarily determined by the nature of the research question. In this investigation, the conceptual framework on the nature of the relationships to be tested (Figure 4.2) in this project was earlier discussed in chapter four. In general, three types of information will be collected through the questionnaire. These are: (i) introductory, (ii) substantive and (iii) classification information.

5.4.1.1 Introductory Information

The introductory section usually elicits two types of information. Peterson (2000) identified these as rapport and screening questions. Rapport questions are designed to gain attention. They can also start participants thinking about the questionnaire topic rather than to obtain substantive information. The second type of information that one might seek to find out in the introductory section is screening information. As we noted earlier (section 5.3.1) the sample frame is ABS students. However, the students' census at ABS include a significant number of international students, therefore it is necessary to include screening questions. The questions in this section will therefore include filter items to screen potential respondents. This is to ensure that participants meet with the sample requirement specified for the investigation (see section 5.3.2.1). Participants will also be requested to provide background information about (i) whom they usually buy boxed chocolate for, and (ii) buying occasions.

5.4.1.2 Substantive Information

The substantive questions are those that are meant to elicit information that is critical to accomplishing the objectives of a research project (Peterson, 2000, p. 108). This investigation is on determining consumer attitude to brands. It is concerned with determining the antecedents to consumer brand equity formation and the consequences of CBE on consumer brand value perception. Therefore, respondents will be required to provide individual opinions and attitudes towards competing

brands of boxed chocolate. These attitudinal statements will be used to determine what influences participants to prefer one brand to another.

5.4.1.3 Classification Information

The final major section in the questionnaire will collect classification information. This section consists of questions to determine participants' socio-economic characteristics. According to Peterson (2000) these are the last set of questions because they have a low refusal rate. Furthermore, except in an investigation where they are the focus of investigation, classifications questions are not as important as substantive questions (Peterson, 2000, p.111). Lastly, the classification section will include an expression of appreciation to study participants for completing the questionnaire. An invitation for participants to enter a raffle draw will also be included in this section.

5.4.2 Expert Review of Initial Item Pool (Content validity)

An initial pool of items was generated for possible inclusion in a multi-item scale. According to Peterson (2000, p. 76):

> A multi-item or summated scale consists of a number of closely related individual rating scales whose responses are combined into a single index or composite score or value.

Multi-item scales are typically used when measuring complex constructs that are not easily captured by a single question (Kerlinger and Lee, 2000). In constructing a multi-item scale one needs to ensure that items generated are based on multiple questions.

These are questions that are likely to capture information about different aspects of a complex construct. Typically, potential scale items that are relevant for capturing the constructs are gathered from several sources. In this investigation items were gathered from the literature. These items were grouped according to the specifically defined constructs that they are meant to capture. Scholarly experts were then consulted to review this initial pool of items.

The experts consist of scholars in the area of consumer behaviour, branding and new product development. This group of marketing scholars examined the different types of constructs in the context of consumer brand equity. They also reviewed various aspects of the questionnaire and the relevancy of each item in eliciting information from respondents.

The role of experts in multi-item scale development is different from that of respondents in the pre-test. Experts in this instance were consulted to:

Assess the substantive meaningfulness of the scale (Peterson, 2000, p.77)

The experts' role in this process is primarily to establish the content validity of the items in capturing the construct. They are also consulted to examine the precision of the items gathered in representing the constructs of investigation.

The experts were then invited to identify the relevancy of various items grouped in terms of their corresponding appropriateness for measuring each of the research constructs. Items were assessed in terms of clarity of definitions. They also assessed the general contextual integration of the pooled items and suggested alternative wordings.

Following the scholarly experts' recommendations changes were made to the initial item pool. A tentative draft copy of the questionnaire was constructed in line with their reviews and comments. Because this is a multi item scale, the initial pool of scale items generated was further reduced through quantitative analysis.

5.4.3 Mode of Questionnaire Administration

Following the specification of information to be collected it is necessary to determine how the questionnaire will be administered. It is important to address this because the method of administration is known to affect the nature of information collected (Oppenheim, 1992; Kumar et al, 1999). One also needs to consider if there is any need to disguise the purpose of the study, confidentiality and ethical issues. A further consideration that can also influence the mode of administration is the geographical

location and concentration of the sample frame. The requirement for a specific response to each question is another key determinant of the questionnaire structure to be considered in questionnaire administration. Of all these factors, two are important in determining the mode of administration. These are the sample frame geographical location and the structure of the questionnaire.

The sample frame is located within a known geographical area. Also, the questionnaire for this investigation will adopt a structured, undisguised format. Questions will be presented with identical wording and order to all respondents. Based on the consideration for these two issues, a self-administered face-to-face delivery method will be the mode of questionnaire administration.

Participants will be expected to return the questionnaire immediately after completion. However, they would also be able to return their completed questionnaires to specially designed collection boxes in designated places. These include lecture rooms during the session following the distribution of the questionnaire, and a major common room where students normally pick up their mails. This approach is an effective way of increasing completion and return rate. It is also advantageous because it is less resource intensive in terms of cost and time. However, it does not offer the opportunity to delve deeper into issues that may arise from the research investigation.

5.4.4 Content of Individual Questions

As discussed in section 5.4.1, the information we are seeking for this investigation is of three types. These are introductory, substantive and classification information. Each section will be addressed in turn.

5.4.4.1   Introductory Section

This section consists of 11 questions designed to collect two types of information. These are rapport building and screening information. The first two questions are screening questions (5.4.1.1) included to ensure compliance with the sample

requirement. The first question (1) *"Have you being living in the United Kingdom for the past three years"* will screen respondents to comply with the sample requirement (section 5.3.2.2). Respondents answering 'no' to this question are automatically excluded from the survey by requesting that they terminate their participation in the survey. Respondents who are UK residents are further screened to ensure that those who have purchased boxed chocolate within the past year are included in the survey.

These first two questions are for screening respondents to comply with the sampling requirement at the data collection stage. The principal objective of this screening is to eliminate possible errors due to respondents not being familiar with the specific brands of boxed chocolates available in the UK. This is particularly important as brand familiarity is an integral part of consumer brand attitude formation (Riezebos, 1994) and decision making process. Controlling for consumers' lack of knowledge, or for having a definite attitude to the research stimulus, is crucial to the accuracy of data collected.

Secondly, usage was also screened for respondents who purchased boxed chocolate within the past year to further improve the data accuracy. This is because those who have purchased boxed chocolate within the past year are more likely to remember their preferences than those who have not purchased boxed chocolates recently. Question 1a, therefore, asked respondents: *"Have you purchased boxed chocolates in the past year?*

In addition to the screening questions, the first section will also collect respondents' age (1b) and gender (1c). Others that will be included are those for eliciting respondents' regularity of purchase (Q2a), receiving (Q2b), and gift purchase (Q2c). Purchase occasion (Q3) will also be elicited in this section. The recipient on the occasion of each respondent's last purchase will also be ascertained in question 3a.

5.4.4.2   Substantive Information

This substantive question section contains specific items that are meant to collect information critical to accomplishing the objectives of the research study (Kumar et

al, 1999; Peterson, 2000). The substantive section, therefore, contains the most important research questions.

This section can also contain other questions that a researcher specified as related to the research topic or important for the study as a whole (Kumar, et al, 1999; Malhotra and Birks, 1999; Peterson, 2000). As Malhotra and Birks (1999, p.321) explains:

> Questions unrelated to the immediate problem may sometimes be included to generate support for the project. At times certain questions may be duplicated for the purpose of assessing reliability or validity.

The substantive section may also:

> Contain research questions that address somewhat different (albeit interrelated) topics (Peterson, 2000, p.108).

In keeping with this well established tradition for including relevant items in the questionnaire, this study will also include items of this nature. There are two reasons for this inclusion. Firstly, given the nature of this research study (see section 5.1.2) some questions will be included for the purpose of future analysis. For instance, these can be to link the theoretical findings from the on-going investigation to an applied research in a further study. Secondly, other questions will be included for the purpose of assessing discriminant validity.

Three types of questions will be included in the substantive information section. The first is question number 4. This contains 15 Likert statements that will be included for the purpose of assessing validity through multivariate analysis later in the research. They are attitudinal statements designed to elicit general opinion about brands. The second types of questions that will be included are those designed to gather information for future analysis. These are the items in question number 6 of the questionnaire.

The questionnaire elicits consumer preferences with three items in terms of overall preference for each of four competitive brands and one retailer's brand. These were

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ranked with 1 as the least and 5 as the most preferred (6a). One question (6b) was specifically on value for money and another on favourite brand selection among the alternatives selected for our research. Questions 6d and 6e will ask respondents about the influence of price on their buying intention. As observed by the researcher during the focus group interview, analysis of which is discussed in chapter 6, consumers seem to use pricing intention as a surrogate for overall likeness rather than a primary purpose for making purchase decisions. Consumers may exaggerate suggested ratings for a brand to reflect overall likeness rather than actual prices that they are willing to pay for a particular brand. A reference price will be included to serve as the basis for negotiation. This is to enable further analysis on what consumers are actually prepared to pay relative to other competing brands in the same category.

In section 5 of the questionnaire are 32 items about antecedents to brand attitude formation. Antecedents to consumer brand equity formation were measured with 9 items. These comprised of attributes for eliciting the *relevance* of a brand to the consumer (Agres and Dubistky, 1996), brand history (e.g. Swait et al, 1993), and the image of the brand as perceived by the consumer. These provided a composite measure of consumer brand equity.

5.4.4.3. Specific Classification Information

The last section in this questionnaire is the classification information section. These are questions designed to determine participants' demographic or socio-economic characteristics. These are usually placed at the end of a questionnaire. This is not because it is unimportant "although they are typically not as important as substantive questions unless they are the focus of a research project" (Peterson, 2000, p.111). Classification questions in the questionnaire will include participants' (i) mode of study, (ii) degree programme, (iii) parent household, and (iv) the job title of the main breadwinner in their household. These questions are indicated in questions 7a to 7h in the questionnaire (Appendix 5).

5.4.5 Form of Response to Questions

Two different types of approaches will be considered in determining the form of response expected from participants. These are open-ended and close-ended responses. Open-ended questions offer one the opportunity to elicit a wide range of unstructured questions. However, they tend to give rise to wide variation in the clarity and depth of response. They may also make comparability difficult at the analysis stage. Both open ended (unstructured questions) and close-ended (structured questions) were included in the questionnaire. Although a number of open-ended questions will be included, the bulk of the questions are close-ended.

Unstructured questions are open-ended questions that respondents were expected to answer in their own words (Kumar et al, 1999). The three open-ended questions included were (i) respondents' age, (ii) respondents' postcode, and (iii) questions designed to elicit specific opinions that each respondent thinks are relevant.

Structured questions will specify the set of response alternatives and its format (Malhotra and Birks, 1999). This requires that respondents make one or more choices from a fixed list of possible responses. A structured question may be dichotomous, multiple choice, or a scale. A dichotomous question has only two possible response categories. The fixed alternative requires respondents to select a specific response that closely corresponds to their view on each question. Three screening questions (two with dichotomous responses: (i) to conform to sample requirement, (ii) gender categorisation and, (iii) to confirm product purchase will be included.

Multiple response questions will include those that are meant to find out: (i) how many times respondents purchased boxed chocolate, (ii) the purchase occasion, and (iii) who they purchased it for. The third type of response is the scale items. A substantial number of items in this questionnaire will be scale items. Therefore, scale items are discussed separately.

5.4.6 Scale Items

Scaling is a form of measurement. It is the generation of a continuum (broadly defined) on which measured objects are located. Scaling is the process of placing the strength of their attitude on a *continuum* (Peterson, 2000 p. 62). Measurement is the actual assignment of a response to each Likert statement by each respondent. Three of the most popular forms of scaling are semantic-differential scales, staple scales and Likert scales (Churchill, 1999). Likert type scales measure requires that respondents should:

> Indicate a degree of agreement or disagreement with each of a series of statements about the stimulus objects (Malhotra and Birks, 1999, p.296)

Likert scale has several advantages in that it is fairly easy to design and administer. Also, respondents have no problems in understanding the items (Malhotra and Birks, 1999) and they are less likely to experience any difficulties in finding the opposite value in the scale. There is also one uniform set of response categories thereby providing clarity for each item (Peterson, 2000).

In the scale items respondents will be required to assess the rating or ranking of each item (Churchill, 1999; Lehman et al, 1998). The attitudinal statements in questions 4 and 5 in the questionnaire are scale items designed to measure attitude towards competing brands of boxed chocolates.

The composite items in questions 4 and 5 will utilise Likert type scales. Respondents will be asked to indicate their agreement or disagreement with each and every statement in the series by circling the appropriate response among five alternatives. The items in both questions will consist of five points response categories, ranging from 'strongly disagree' to 'strongly agree'. Each statement will be assigned a numerical score against the five brands of boxed chocolate that serve as the stimuli for this investigation. 'Strongly disagree' will be assigned 1 with the value going up in number to 5 for 'strongly agree'.

5.4.7 Sequence of Questions

Question sequence is the arrangement of individual information that one is seeking to elicit. Where participants will be requested to personally complete a questionnaire the sequence of the questionnaire is important. This is because it facilitates efficient administration to the appropriate sample (Peterson, 2000). The sequence of questions is an important issue to consider in making it easier for respondents to complete a questionnaire.

The questionnaire will, therefore, be sequenced to avoid bias by structuring the order in which questions are asked and answered. Making sure that none of the research constructs are identified in the body of the questionnaire will carry this out. For instance, items that are meant to elicit participants' opinion about brand image, brand history and brand relevance were not specifically labelled as such.

According to Peterson (2000) it is also important that:
> A questionnaire should be sequenced to minimize what are typically termed context effects (p.102).

This is to limit respondents' ability to 'second guess' and respond in the way they think the research wants rather than how they actually feel. This sequence outline follows guidelines for questionnaire protocol by eliciting introductory, substantive and then lastly classification information (Peterson, 2000; Churchill, 1999). The questionnaire invites participants to enter a raffle where the prizes are a bottle of Champagne and their favourite boxed chocolate. It also requests them to offer a few words about what makes their chosen brand unique. Completing this section would compromise respondents' anonymity. However, by leaving this section till last respondents should be able to opt out of this section without prejudice to any of the earlier questions that they have previously responded to in the questionnaire.

5.4.8 Physical Characteristics of the Questions

The physical characteristic of the questionnaire is important for ensuring an effective and cooperative response from participants. It assists the researcher in securing acceptance of the questionnaire. It is also important for research in processing the data

(Churchill, 1999). These factors were taken into consideration in determining the physical character of the questionnaire. The questionnaire opened with a front-page confidentiality statement, an assurance of anonymity to encourage participation. The introductory page will offer full disclosure to participants by letting them know the purpose of the research. They will also be able to know who is conducting the investigation.

There is also a strong recommendation to number the questions to aid completion, editing, coding and tabulation (Peterson, 2000; Malhotra and Birks, 1999). Therefore, many of the sections were numbered. However, questions 4 and 5 will not be numbered so as not to make them seem too many, and thereby hamper completion.

The length of the questionnaire is also an important issue to consider. Literature offers different advice about the optimal length of a questionnaire. Peterson (2000) suggested that the relative length of a questionnaire varies according to the purpose of the research. However, Jobber and Saunders (1986) found that 58% of the mail surveys in an industrial setting were between four and ten pages. It is also reported that the length of the questionnaire is uncorrelated with the weighted average response rate associated with the length of the questionnaire (Yu and Cooper 1983; p 39).

However, while there is no conclusive evidence that a short questionnaire will improve response rate, it is common sense to suggest that a concise questionnaire will not hinder the response rate. The questionnaire will be copied back-to-back on A4 paper. This will reduce the physical length of the questionnaire from eight to four sheets, to improve the perception of its length. It also reduces the resource needed for its administration in terms of the cost of copying and the size of return boxes for collecting them. The final pre-tested questionnaire (single-sided) is presented in Appendix 5.

5.5. Questionnaire Pre-test

The next step in the development of a measuring instrument for this investigation is to test the questionnaire developed. This is to ensure that potential difficulties are dealt with prior to its full-scale administration. Pre-testing is the administration of a questionnaire on a small sample to identify and eliminate potential problems (Malhotra and Birks, 1999; Peterson, 2000). The literature on questionnaire design recommends that a new scaling instrument should be subjected to a rigorous pre-test prior to conducting the full survey (e.g. Churchill, 1999; Oppenheim, 1992; Sudman and Bradbum, 1982). It also suggested using more than one pre-testing approach and method to identify potential questionnaire or question problems (Kerlinger and Lee, 2000; Peterson, 2000).

Pre-testing ensures that the instrument meets the researcher's requirements in terms of the information that will be collected (Kumar, et al, 1999) as well as its adequateness. In this instance, pre-testing plays a role in questionnaire design that is similar to that of test marketing a new product (Churchill, 1999). The purpose in both instances is to ensure that the questionnaire is appropriate for the purpose.

There are at least four different methods for pre-testing a questionnaire (Peterson, 2000). However, not all of them are commonly used procedures for eliciting respondents' reactions to a questionnaire. First is the systematic observation and recording of "both verbal and nonverbal behaviours" (Peterson, 2000, p.16). Secondly, respondents can also be requested to interpret each question in terms of what they think it means to them. In debriefing, specific questions and associated problems are discussed after completing the questionnaire (Malhotra and Birks, 1999, p. 287). This is to identify any gross misunderstanding that may exist in the questionnaire. Verbal-protocol analysis is a third method that one can use to pre test a questionnaire. Computer coding of concurrent verbal protocols is a fourth method. This is usually used for assessing the cognitive difficulty of the question and it is similar in nature to the debriefing or interpretative method (Basil and Scott, 1996). Finally pilot-test is regarded as the most rigorous pre test method.

Although these four methods are the most widely used procedures for pre-testing, they all have specific shortcomings. Protocol interviews can introduce bias because the act of thinking consciously about decisions may change the response to that decision. Problems may arise through the debriefing method, because questions encountered at the beginning may be forgotten or overshadowed by other issues in the later part of the questionnaire. However, Churchill (1999) recommends that the pre-test stage should be conducted by personal interview irrespective of the method of administration. This method has two key advantages. It enables the administrator to probe for further clarification. One can also receive feedback from the respondents in a way that cannot be done with the self-administered method in pre test.

5.5.1 Pre-test: Protocol Interviews

In developing this questionnaire, protocol, sectional and full pilot tests were conducted. Verbal protocol in which the respondent thinks out loud as they answer each question was also used to pre-test the questionnaire. There are limits to how well a pre-test can detect errors (Kumar et al, 1999, p. 324). Seeking further analysis in terms of the general rigour of the questionnaire is important.

A protocol pre-testing (Peterson, 2000, p117) is a method involving probing questions regarding the questionnaire after completion. This method of pre-testing was used with four respondents. They were two faculty members, one research assistant and one doctoral research student at Aston Business School. Two of the interviews lasted 40 minutes each while the two with the faculty members were 15 minutes and 30 minutes respectively. In short, they were expected to be critical of the whole questionnaire, rather than just respond to it in terms of their attitude and opinions alone.

Many things were evaluated including the language, instruction, length and sequence of the questionnaire. For instance, respondents to the verbal protocol suggested changes due to semantic ambiguities and meaning connotations in the questionnaire. On completion the questionnaire was amended in line with clarifications and

suggestions generated. For instance, respondents perceived some of the questions as repetitious and duplications. This necessitates further clarification on this section of the questionnaire.

5.5.2 Second Pre-test: Sectional

A sectional pre-test was carried out on section 6 of the questionnaire. The main objective of this second pre-test was to ascertain the comprehensibility of a specific section of the questionnaire. The feedback from respondents on the open-ended questions resulted in various adjustments particularly to the pricing questions in section 6e and 6d. The purpose of this pre-test was to test the clarity, meaningfulness and ease of answering questions on consumer price consideration for brands. A convenience sample of 8 administrative staff at Aston Business School was drawn for this purpose.

The main difficulty identified at this stage was consumers' inability to relate to the different sizes of boxed chocolates as a comparative measure. Following this observation, a standard size for all the boxed chocolate was fixed at 210 grams and prices for each one calculated based upon this size and the actual price for each of the five brands of boxed chocolates.

5.5.3 Controlling Bias and Improving Response Rate

Several procedures to counterbalance possible sources of bias were put in place. These measures minimise the possible effect of bias due to the measurement instrument, and also those that may be introduced as a result of non-instrumental sources which are respondents' personal prejudices. In general, pre-testing a questionnaire is a way of reducing specific bias that may arise as a result of weakness inherent in it as a measuring instrument.

Having completed this detailed pre-testing stage of the research process, several key changes were made to the questionnaire. The next stage is the consideration for non-instrumental sources of bias. How accurately one can infer attitudes from responses to

questions may be influenced by a number of personal traits of the respondents (see, for instance, Cronbach, 1990; Lehmann, Gupta and Steckel, 1998). These response set biases include those that may be introduced by factors such as: faking responses, social desirability, 'yea saying', misinterpretations and uncommon reply. Table 5.4 highlights different means of making improvements to the questionnaire adopted for this investigation.

Possible source of non-response	Improvement Factor
Anonymity	Assurance that the information provided will only be used for the research purpose and in strict confidence
The value of the research and its purpose may not be clear	Full information about the purpose of the research is provided and made relevant to the individual sessions in which the questionnaires were administered
Social responses may be faked to reflect what they think they should say	Questions were deliberately separated to reduce the chances of item recognition as requiring particular response.
Appeals/interest	The product category of chocolates generates a lot of interest thus helping to focus respondents on the buying process rather than on guessing the intention of the study
Incentives	A chance for every completed questionnaire to win a bottle of champagne and their favourite boxed chocolates
Questionnaire length	Is shortened by using front and back pagination
Altruism	The researcher is identified as a student inquiring about respondents attitude and purchasing intention with regards to boxed chocolates
Questionnaire Arrangements opening/end	Both patterns and specific sentences were used to indicate a clear opening and end of the scale.

Table 5.4. Possible Sources of Response Bias and Possible Improvement Factors

In addition to the issues dealt with in Table 5.3, specific major changes effected in the questionnaire are listed as follows:

Introduction page – In addition to a boldly printed confidentiality statement on the front page, a further statement was added to reflect openness and encourage respondents to get involved. This statement was: **"Thank you for participating in this study of consumer buying behaviour. Please do not hesitate to contact the**

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research team by Email at: branding@aston.ac.uk if you require further information. The email address specifically created for the research was included to generate interest and to encourage respondents to complete the questionnaire.

The researcher's name and research supervisors' names were included with contact detail to improve openness.

Primary Research Information - Individual items were removed from the questionnaire after pre-testing to reduce repetition and further purify the items.

Questionnaire Structure - The questions were grouped into seven sections and individual numbers were removed from questions 4 and 5. This grouping and rewording allowed questions to be presented in a shorter form thereby reducing the perceived questionnaire length. In addition, questions relating to respondents' age were amended to collect ratio data such as the age of the respondent, rather than interval data, for instance by selecting one of several options from an age range. The fully updated questionnaire was used in the pilot-survey.

5.5.4 Pilot-test

The extent to which a pilot test is required, as well as the nature of the pilot-test, is partly a function of the questionnaire and the nature of the research project (Kerlinger and Lee, 2000; Malhotra and Birks, 1999). However, there is a general agreement that a questionnaire will benefit by subjecting it to a rigorous pre-testing. Pilot study represents the most elaborate and robust of pre-tests (Peterson, 2000). A pilot study:

> Is essentially a small-scale study; normally it consists of administering a proposed questionnaire under simulated or actual research project conditions Peterson (2000, p.117).

The main objective in a pilot study is to identify potential problems and suggest solutions. The purpose of the pilot survey is to identify potential problems specific to a self-administered technique of conducting the survey. The whole process serves as a trial run for administering the entire questionnaire for the main survey.

There are different schools of thought regarding the appropriate composition of a convenience sample for pilot study. One suggestion is that anyone can be a subject of

the trial regardless of whether or not they represent the intended sample (Peterson, 2000, p.116). Another suggestion is to select a group consisting of a representative sample of the expected respondents in the typical study. For the purpose of piloting, it is believed that the recruitment of subjects from a variety of backgrounds is important. However, Peterson (2000) recommended an approach using a convenience sample that includes the targeted sample as well as others who are similar to the targeted sample. This is to ensure that subjects with a disposition similar to those completing the main survey are included (Oppenheim. 1992, p.62). It is also meant to ensure that the questions were well understood by respondents from a broad range of backgrounds.

The questionnaire was piloted on a convenience sample of 55 respondents. These were: 11 administrative staff, 21 doctoral research students, and 17 undergraduate students from Aston University. Others were 6 homemakers whose children attended the Bournville Infant and Junior School in Birmingham. The administrative procedure for the main study was utilised in its entirety. Participants were instructed to respond to the questionnaire, as they would be expected to do in the main study.

Respondents were contacted prior to administration to seek their approval to participate in the survey. The questionnaires were personally administered on a Wednesday and respondents were requested to return them by the next Tuesday. Where no response was received two days after the due date (the following Thursday), they were then contacted in person to remind them of it. Finally, on the Tuesday a week after it was due, a final contact was made with those who were yet to respond. The final response was 42 completed questionnaires returned. This represents 84% response rate, a figure that favourably compares with the effective response rate for a pilot survey of 56% (see Churchill, 1995, p.661). However, 3 of the completed questionnaires were un-useable because participants did not respond to many items in the questionnaire.

Out of the 8 non-responses, 4 apologised for their inability to respond and indicated that they may not be able to do so due to their busy schedule. One was injured during

a football march and was unable to participate in the survey because of the long hospitalisation required. Three other questionnaires were never returned and remained unanswered. Table 5.5 presents a breakdown of the pilot survey.

Completed Questionnaires	Non-responses	Unusable	Useable	Total Pilot Sample
42	8	3	39	50
A1	A2	A3	A4	TOTAL
42	8	3	39	50
84%	16%	6%	78%	100%

Table 5.5 Breakdown of Pilot-Test Survey

None of the respondents misunderstood any of the items in the questionnaire. The outcome of this pilot-test stage justified the movement of the project onto the main survey stage. A chart of the pilot test conducted is depicted in Figure 5.4.
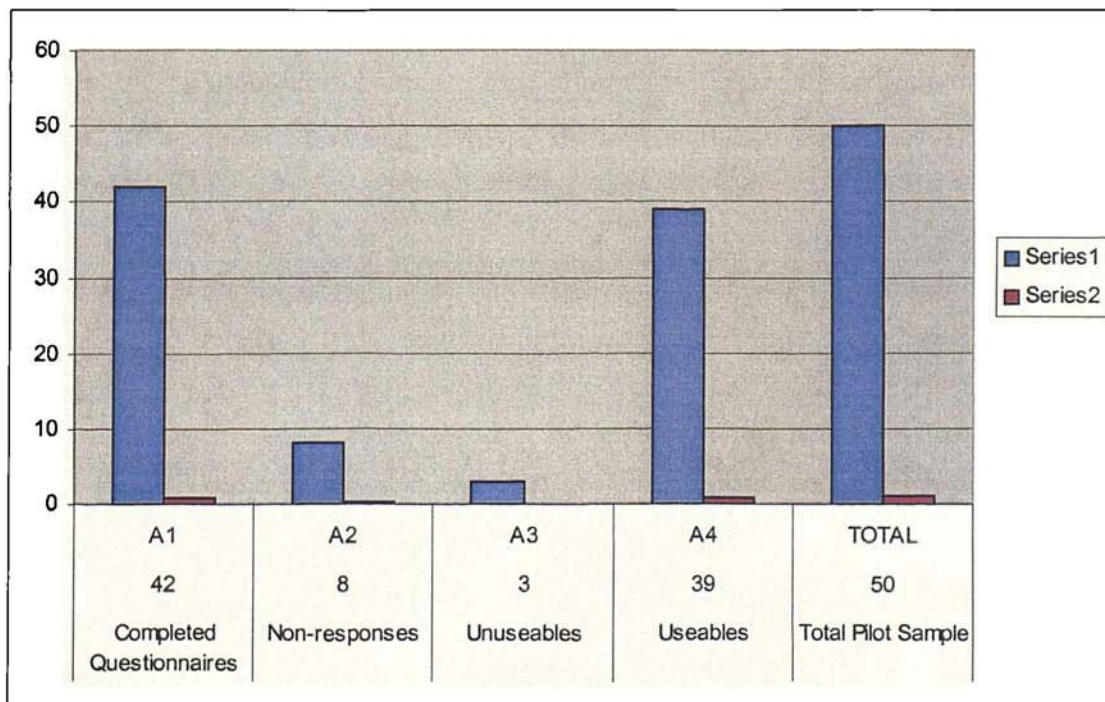
Figure 5.4 Breakdown of Pilot Test Questionnaires

5.6 PROPOSED TECHNIQUE OF QUANTITATIVE ANALYSIS

In deciding on the appropriate methods for empirical analysis, Bagozzi and Baumgartner (1994, p.338) recommend that it is most appropriate to make a distinction between two issues. Firstly, one needs to consider the approach to measuring the research constructs. This investigation conceptualised CBE as a complex construct that is better measured through multivariate techniques. The argument is that a multivariate technique is better able to capture the multifaceted nature of the concepts. However, as there are a number of multivariate techniques that one could adopt Bagozzi and Baumgartner (1994) further advised that one should consider a second factor.

The second factor for consideration is how one conceptualises the patterns of relationship between the research constructs. These two considerations informed the debate regarding two possible techniques for analysing the empirical data for this research study. These techniques are conjoint (Trade-off) analysis and structural equation modelling (SEM).

5.6.1 Justification for Rejecting Conjoint (Trade-Off) Analysis

Conjoint analysis is a multivariate technique used specifically to understand how respondents develop preferences for products or services (Hair et al, 1998, p.392). The technique enables one to determine the relative importance that consumers attach to salient brand attributes. One is also able to determine the utility level that they attach to different brand attributes (Malhotra and Birks, 1999). The conceptual basis for conjoint analysis is that consumer preference for a brand is based on the process of adding gains from known attributes of a brand to arrive at a value preference (Hair et al, 1998). Such preference is also explained as a function of brand attributes. They then evaluate a brand by adding the utility that each attributes of such brand provides for them. Therefore, the assumption in conjoint analysis is that consumers evaluate the value of a brand by combining the separate amounts of value provided by each attribute. Conjoint analysis also assumes that consumers evaluate the choice

alternatives in terms of these attributes and make 'trade-offs'. This explains why it is regarded as a:

> Decomposition model because the research needs to know only a respondent's overall preference for an object created by the research through specifying the values of each attribute factor (Hair et al, 1998, p.399)

Conjoint analysis, therefore, involves presenting stimuli to respondents and showing them attributes two at a time for respondents to rank the possible combinations of the levels in terms of preference (Hair, et al, 1998, p.392).

In conjoint analysis, the assumption is that utility is based on the value that an individual consumer placed on each of the levels of brand attributes (Figure 2.2). For example, an individual might sum the utility values associated with each feature of a product or service. As a result, one may prefer a brand with higher utility values thereby giving such brand a better chance of choice than its competitors. This suggests that all brands are evaluated with the same preference structure and all are compared to one ideal. However, empirical findings such as those provided by Carpenter and Nakamoto (1989), Aaker and Keller (1990) and Farquhar and Pratkanis (1993) suggested that a brand could create asymmetric preferences beyond attributes' utility.

Furthermore, conjoint analysis assumes that the important functional attributes of a product can be identified. It also assumes that consumers evaluate the choice alternatives in terms of these attributes and make trade-offs. However, in a situation where the consumer selects the choice alternatives in terms of subjective, non-functional attributes, they may not evaluate brand in terms of its functional attributes. Therefore, a trade-off model may not be a good representation of choice process (Malhotra and Birks, 1999, p.642). These are key limitations of conjoint analysis. It was, therefore, concluded that conjoint technique is inappropriate for this investigation.

5.6.2 Structural Equation Modelling: Technique of Analysis

The Structural Equation Modelling (SEM) technique encompasses a family of multivariate analysis (Anderson and Gerbing, 1988; Homburg and Baumgartner, 1996). SEM is an appropriate technique in an investigation where the purpose is to:

> Obtain understanding, explanation prediction, or control of some phenomenon. We do this by developing theories, testing them, and implementing the results. (Bagozzi, 1994, p.3)

Structural equation modelling (SEM) is a multivariate technique encompassing a family of models. These are known by many names such as covariance structure analysis, latent variable analysis and confirmatory factor analysis. A specific software developed for SEM is called LISREL (Jöreskog and Sörbom, 1996). The reasons why SEM is an appropriate statistical method for analysing the data for this investigation are elaborated further in chapter six.

One form of SEM deals directly with how well a measure reflects intended constructs. This explains why one of the most prevalent uses of SEM is to conduct confirmatory factor analyses as a means of assessing the measurement properties of scales (Kelloway, 1996, p.2). Another form of SEM also deals with the specification and testing of complex structural path models. This latter form of SEM is discussed further in chapter seven of this thesis. In SEM analysis:

> The researcher draws upon theory, prior experience, and the research objectives to distinguish which independent variables predict each dependent variable (Hair et al, 1998, p. 589).

The SEM technique examines a series of dependence relationships simultaneously (Hair et al, 1998, p.578). This investigation draws upon the literature and proposed theoretical explanation of variables that determine consumer brand equity. It then seeks further empirical evidence to distinguish between these factors and how they influence consumer brand value perception. Investigating a theoretical construct like CBE will benefit from an analysis technique that enables one to integrate conceptual explanations with statistical efficiency. SEM will also enable one to examine these issues in terms of its managerial and theoretical importance.

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Conceptual developments and reliable empirical tests, therefore, represent two important components of an investigation of this nature. Measurement error is attributable not only to inaccurate responses, but is also more likely to occur in measuring theoretical concepts like consumer brand equity. Therefore, in neglecting either of these two essential parts, the researcher risks forming ambiguous and spurious inferences (see, for instance, Bagozzi, 1994; Barwise, 1995, p.925-935).

5.7 MAIN SURVEY

The main survey was undertaken at Aston University in Birmingham between the 25th of October and 5th of November 1999. The co-operation of individual lecturers was sought prior to the administration.

5.7.1 Research Administration

Respondents were home students as defined as those who have been resident in the UK for the past three years (5.6.13.1). During the actual lecture sessions, individual lecturers sought participants' co-operation with the researcher before questionnaires were administered. Personal pre-notification is known to improve response rate in survey research (Hart, Hultink Tzokas and Commandeur, 1998). The research project was introduced as an investigation for a doctoral research being undertaken by the questionnaire administrator. This is to initiate an altruistic appeal from respondents towards competing the questionnaire.

The purpose of the inquiry was explained to them and their attention was drawn to the fact that respondents with completed questionnaires will be entered into a prize draw. Respondents were left alone to complete the questionnaires. The researcher returned after 15 minutes to collect the questionnaires. Those that were unable to complete the questionnaire were then requested to return it during the same lecture the following week. Several specially designed boxes were also placed in the students' post room for those who wished to return the questionnaire earlier. These ensured a high response rate that compared favourably to expected returns for postal questionnaires

as described in the literature (see, for instance, Churchill, 1999). Further returns were effected a week after the questionnaires were distributed.

5.7.2 Survey Response

In all, 850 questionnaires were administered during 7 undergraduate classes at Aston Business School. Actual attendance at each of the classes on the day of administration was not recorded, as this would have had a disruptive effect on the classes. However attendance was fairly good because it was the beginning of the season. Furthermore, because the classes surveyed were mainly core unit lectures, many of the lecturers also observed that attendance was generally good.

In total, 432 questionnaires were returned. These represent 51% response rate. From this sample, 26 questionnaires were unusable because participants did not respond to many of the items. These generate a large amount of missing data, requiring their elimination from the useable questionnaires. Those completed by participants who have not been living in the UK for the past three years (3) and those who did not purchase boxed chocolate in the past year (8) were regarded as ineligible. These yielded a total of 11 questionnaires. Finally seven were totally spoilt due to coffee/tea spillage that rendered it impossible to read clearly from the questionnaires. Figure 5.6 provided a breakdown of the response for the main survey.
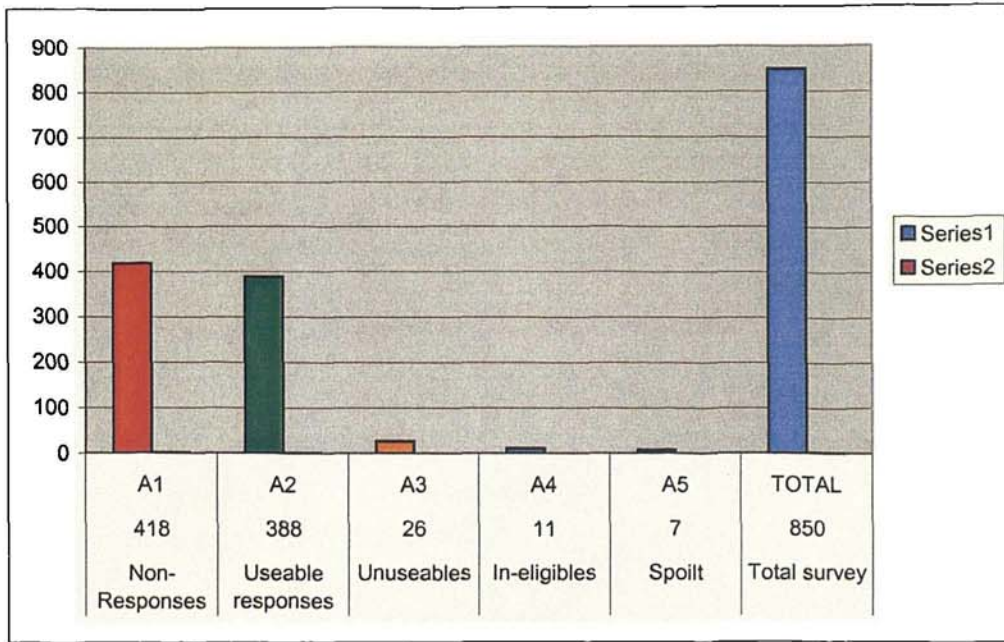
Figure 5.5 Breakdown of Response Rate for the Main Survey

5.7.3. Assessing Item Non-Response

Non-response bias occurs when the respondents and those that do not respond to a survey differ significantly in terms of their possible response to key questions of interest. The fact that a section of the targeted sample chose not to respond to a survey may imply that meaningful differences could occur (Kumar, et al, 1999) between the two sub-samples. However, response rates do not indicate the representativeness of the responding sub-sample. This is because the implication of a sample is that irrespective of its composition all members of the population from which a sample is selected have equal chances of being selected.

Nevertheless, Churchill (1999) suggests that some assessment of non-response bias must be made to provide further confidence in a sample that is intended for generalisation across the population from which the sample was drawn. Non-response may be estimated in three ways: comparison with known values for a population, subjective estimation of value and extrapolation of response rate. Subjective estimation was deemed appropriate for this investigation.

5.7.4 Data Cleaning and Initial Analysis

Data cleaning is an essential step following the collection of the questionnaires. This involves dealing with problems of missing data and inconsistent or illogical data (De Vellis, 1991). In data collected for this investigation, several steps were taken to clean the data. The first step involves identifying and eliminating illogical data such as codes, inappropriate responses. However, such instances were limited because the responses were pre-coded. Pre-coding the expected responses helps in alerting the data processor to any unusual responses.

Using SPSS statistical package, missing items were dealt with prior to performing any statistical analysis. These problems were dealt with by examining individual responses to scale items. Where the data is a coded response, a value of -9 is assigned to each missing value before analysis.

5.8   CONCLUDING REMARKS

This chapter outlined the strategy for carrying out the investigation reported in this thesis. It discussed the nature of the research and the effect of this on the expected level of generalisability of the findings. The chapter outlined the research design and its effect on the sample frame selection. The focus group discussion carried out to clarify the concept of CBE was also reported. It then set out the nature of the information sought for testing the research proposal and how to obtain this. The development of the research instrument, the nature of the pre-test that was administered, and the initial method of analysis were also discussed.

THE DEVELOPMENT AND CLARIFICATION OF A CONSUMER BRAND EQUITY SCALE

6.0. ORGANISATION

This chapter reports on the scale development process. The chapter is divided into six sections. In **6.1** we offer a brief introduction to the process of developing a scale, discuss item analysis, factor identification and labelling. Section **6.2** examines the underlying dimensions of *Consumer Brand Equity* (CBE) and the scale development process through exploratory factor analysis (EFA). In **6.3**, the CBE measurement model is subjected to Confirmatory Factor analysis (CFA), while **6.4** tests the measurement model subjected to confirmatory analysis. Section **6.5** tests the fit of our measurement. Finally, **6.6** offers concluding remarks on the issues discussed in the chapter.

6.1. INTRODUCTION

First, the chapter presents an outline of data reduction and the systematic procedure employed in establishing the dimensionality of consumer brand equity. This is a prerequisite for clarifying the construct of *Consumer Brand Equity* (CBE). Construct clarification is an important step in developing an appropriate, valid and reliable measuring instrument (Churchill, 1999; DeVellis, 1991; Pedhazur and Schmelkin, 1991; Bagozzi, 1994). Secondly, the chapter outlines the procedure and the result of confirmatory factor analysis (CFA) to which the measuring instrument was subjected in order to substantiate and examine how well the measures of CBE reflect their intended construct.

6.2. SCALE DEVELOPMENT PROCESS: FRAMEWORK FOR ANALYSIS

The measure development process entails specific operational procedures designed to ensure a rigorous, systematic and transparent analysis of data (Pedhazur and Schmelkin, 1991). Issues such as scale validity, reliability and data reduction are dealt with in the methodological and psychometric literature as requiring identifiable procedures (see for instance, Bagozzi, 1994; Churchill, 1995; DeVellis, 1991; Gerbing and Anderson, 1988; Kerlinger, 1992; Pedhazur and Schmelkin, 1991).

This section focuses on the following specific issues: it identifies the underlying factors that will explain variance in the data we collected through data reduction analysis, and generates correlation matrix as input for subsequent LISREL analysis. For these purposes, our data will be assessed using exploratory factor analysis.

6.2.1. Gathering Scaling Items for Analysis

The first decision in designing our survey is that of gathering items for the scale. In making decisions about this we were guided by assertions in the literature that such items gathered for factor analysis should be based on conceptual definitions of research constructs. According to Hair et al (1998):

> Even if used solely for data reduction, factor analysis is most efficient
> when conceptually defined dimension can be represented (p.97)

The items included in our analysis were gathered based on the conceptual definitions of our research variables. Furthermore, as factor analysis can be performed either with pre-existing sets of variables or with newly created variables, both types were included in the substantive variables for this investigation. However, what is common to all the 32 variables is that they were all included on the basis of the concepts that they explain (see chapter 4). The concepts included in this network of explanatory constructs were guided by those published in scholarly and trade journals.

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These 32 items represents the substantive variables for eliciting respondents' preference and attitudinal opinion for our survey. Typically, potential scale items that are relevant for capturing the construct of CBE and its underlying dimensions were gathered from several sources.

Following the gathering of substantive items, other classified as introductory information (see section 5.4.1.1) and classification information (section 5.4.1.3.) were determined and added to the substantive items. As discussed earlier (see section 5.4), the substantive information gathered forms the main data in our scale development and analysis.

6.2.1.1. Determining Number of Items for Each Construct

The need for multiple items for our multivariate analysis is another important considerations in determining how many items are to be included for each construct. Multi-item scales are typically used when measuring complex constructs that are not easily captured by a single question (Kerlinger and Lee, 2000). In constructing a multi-item scale one needs to ensure that items generated are based on multiple questions. These are questions that are likely to capture information about different aspects of a complex construct.

The number of variables included per factor was guided by the recommendation in the literature. According to Kerlinger and Lee (2000) the researcher should attempt to minimize the number of variables included but still maintain a reasonable number of variables per factor. However if a study is being designed to assess a proposed structure, one should include several variables that may represent each proposed factor (Hair et al, 1998, p.98). This represents the guiding principle for the inclusion of variables in this investigation. Items were included based on substantive variables that are conceptually available in the literature that reflects our research concepts. They were then organised into 6 constructs grouping before the initial analysis and are listed in Table 6.1.

Brand History (3)

(4) This brand of boxed chocolate has a rich history
(7) I have fond memories of this boxed chocolate
(8) My memory of this boxed chocolate goes back to my childhood

Brand Support (2)

(1) I can get a refund if I am not satisfied with this boxed chocolate
(2) This boxed chocolate's advertisements are entertaining

Brand Insistence (5)

(3) I buy this boxed chocolate regularly
(9) I regard this boxed chocolate as a reliable friend
(14) I like this boxed chocolate more than any other
(19) I am devoted to this boxed chocolate
(20) If my usual store does not stock this chocolate, I will go to another store to buy it

Brand Strength (7)

(10) I feel confident in recommending this boxed chocolate to others
(12) This is the brand of boxed chocolate I buy most often
(13) In my opinion, this is the best boxed chocolate in the market
(15) This is the boxed chocolate I usually buy as a gift
(23) This boxed chocolate is good value for money
(30) Eating a box of this chocolate makes me feel good
(32) This boxed chocolate portrays how I wish others to see me

Brand Image (8)

(18) This boxed chocolate is very distinctive
(24) This boxed chocolate has a clear image
(25) This brand of boxed chocolate would convey my feelings to others
(26) This boxed chocolate adequately conveys my sentiments
(27) This boxed chocolate has a positive image
(28) This boxed chocolate expresses the way I feel
(29) This boxed chocolate is prestigious
(31) I know what this boxed chocolate stands for

Brand Equity (7)
(5) This is a boxed chocolate that I would trust
(6) I hold this boxed chocolate in high regard
(11) This boxed chocolate met my overall expectation last time I bought it
(16) This boxed chocolate cheers me up whenever I eat it
(17) I usually treat myself with a box of this chocolate
(21) The taste of this boxed chocolate is most satisfying to me
(22) Eating this boxed chocolate is pleasurable

Table 6.1. Pre-analysis Scaling Items for Consumer Brand Equity

Scholarly experts (including 1 professor of branding, 1 senior lecturer in consumer behaviour and 1 expert on new product development) were then consulted to review this initial pool of items (see section 5.4.2).

6.2.1.2. Data Reduction and Summarization

While the items were selected from past research and exploratory investigations, the items may not perform as expected. To find items that form an internally consistent scale, it is important to identify and remove non-performing items from the scale (Spector, 1992, p.29). The first stage in the analysis of our primary data for this research is the identification of the antecedent factors for consumer brand equity. To accomplish this, the 32 items in our CBE scale developed from the initial qualitative research were subjected to purification.

Our data will be assessed using exploratory factor analysis (EFA) at this initial stage. According to Hair et al, (1998) EFA can be used for two purposes. These are:

> "...the underlying patterns or relationships for a larger number of variables and to determine whether the information can be condensed or summarized in a smaller set of factors or components (Hair et al, 1998, p.89).

Following data purification (see section 5.8.4), an exploratory factor analysis was undertaken for data reduction purposes using SPSS version 10.0. Exploratory Factor Analysis (EFA) is used for the primary purpose of data reduction for further application in subsequent SEM analysis (Boyle, et al, 1995; Hair, et al, 1998). The aim is to reduce the number of original variables into their principal constituents in order to simplify the subsequent model testing for which the resultant validated scale is built.

Data reduction is the process of describing a data matrix by computing the small number of measures that characterise the data set. For this purpose, factor analysis is utilized as a reduction technique to summarise the data into a smaller set of factors or components. In this approach, factor analysis aids scale development by quantifying how much of the total variation in the entire set of items can be accounted for by each

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of the items in the scale (DeVellis, 1991). Factor analysis assumes that some common factors are responsible for the covariation among the observed variables based on prior knowledge about the variance in the factors (Hair *et al*, 1998). When the objective is to summarise information in a larger set of variables into fewer factors, as is the case in this investigation, principal component is used. Principal component analysis is a widely utilised factor analytic technique within brand equity research (see for instance, Aaker and Keller, 1990, Keller, 1993).

To achieve these objectives we first undertake data reduction as a means of uncovering the underlying dimensions of consumer brand equity from the primary data collected for this investigation.

6.2.1.3   Items Identification Process

The application of factorial procedure was deemed appropriate as the first step in uncovering the appropriate classificatory items based on the individual items' loading on specific factors. Individual items were examined at several stages through exploratory factor analysis. Simple structures within the data set were identified.

The key objectives of this analysis are to parsimoniously retain the nature and character of the original variables (Pedhazur and Schmelkin, 1991) upon which factor analysis has been applied, and to assess the validity of treating a set of indicators as the reflectors of several independent constructs of CBE. At this stage it is important to examine the appropriateness of factor analysis technique for our data. Therefore, Bartlett's test of spherity and the Kaiser-Meyer-Olkin measure of sampling adequacy are employed (Coakes and Steed, 1999). If Bartlett's test of spherity is large and significant, and the Kaiser-Meyer-Olkin measure is greater than 0.6, then factorability is assumed. The Kaisers measure of sampling adequacy (Kaiser, 1970) is a well recognised technique for diagnostic measure that provides a means of assessing the extent to which the indicators of a particular construct can be grouped together. The guideline suggested by Kaiser and Rice (1974) is indicated in the table 6.2. This guideline was the one followed in this analysis.

Below 0.50	→	Unacceptable
0.50 - 0.60	→	Miserable
0.60 - 0.70	→	Mediocre
0.70 - 0.80	→	Middling
0.80 - 0.90	→	Meritorious
Greater than or equal to 0.90	→	Marvellous

Table 6.2. Kaiser-Rice's Criteria for Grouping Factor Items

These measures provided further diagnostic considerations in addition to the pre-data collection consideration for technique of analysis. However, there is the need for further considerations in determining the number of factors to extract from a particular data.

During this procedure, items that correlated negatively, and those that did not correlate strongly with any other items, were deleted from the scale. An issue for further consideration is the extent to which each individual item correlates in comparison to the sum of the remaining items (item-total correlation). Individual items exhibiting highest item to total coefficients were retained for further consideration in the scale. Another desirable characteristic of a good instrument for measuring CBE include the capability of a latent factor to explain a high variance (Loehlin, 1998). This is because high variance enables an item to discriminate among individual items with different levels of the construct being measured.

It is also important to estimate the score that would be obtained if it were possible to identify the items that aptly capture all the dimensions of CBE. A high correlation between scale items connotes that all the items are homogenous to a domain, while a low correlation indicates otherwise. A low correlation points to a possible source of measurement error and this may render the scale unreliable (Black, 1999; Bryma and Cramer, 1990).

Interpretation is based on the levels of correlation that can be categorised as either high or low. High levels of correlation allow one to conclude that the items are related and justify their grouping with a factor (Loehlin, 1998, p.154). Examining the item-to-total correlation and inter-item correlation purified the result of the questionnaires administered. It is crucial for the individual items representing a latent variable to be positively correlated as internal consistency is expected in items measuring the same underlying factor (see for instance, Bollen, 1984). Item analysis represents a means of data reduction by eliminating items that do not form an internally consistent relation with the rest of the scale. High correlation between items is, therefore, a quality sought of a set of items forming a scale (DeVellis, 1991).

6.2.1.4.   Factor Identification and Labelling

At the later stage in item analysis, the remaining data set within the principal component analysis was examined with the oblique rotation method. The scale items were assessed for inclusion using several criteria. First, variables with insignificant factor loading (<0.5) were considered for deletion. Those that load onto more than one component were also deleted. Variables with item-to-total scores equal or greater than .45 and inter-item correlation equalling or greater than .30 were retained. Secondly, the communalities of the items representing the amount of variance accounted for by the component solution of each variable were assessed. Those with low communalities (<0.4) were considered for deletion. Thirdly, both scree plot and items with Eigenvalues >1 were assessed for all the items retained.

In all, only those items that loaded to principal factors exhibiting simple and clear structure were retained. These comprised of ten items loading on to three components. The three components explained 66% of the variance in the aggregate data for this study.

A further internal consistency check was assessed using coefficient alpha (Cronbach, 1951, 1990) as a test of reliability. All three components were analysed as individual sub-scales and their Cronbach alpha values checked against the acceptable level. Those with alpha values greater than .60 (Cronbach's $\alpha>0.6$), indicating that the

homogeneity of the three sub-scales could not be further improved upon through item elimination, were retained. The pre-analysis scaling item for the development of CBE model on which the exploratory factor analysis will be performed is provided in Table 6.2. Section 6.2.2 will address each factor grouping in turn by examining the initial item analysis conducted, dimensionality of the factor and the reliability of the resulting scale.

6.2.2. Brand Strength and Brand Insistence Item Analysis

The initial items for the *Brand Relevance* scale were part of the two independent scales for brand *Strength* and brand *Insistence*. The brand *Strength* scale initially contained 7 items for eliciting the depth of respondents' preference for a brand and how strongly they feel about it. The initial scale for brand *Insistence* contained 5 items designed to find out whether, when respondents decide to purchase a brand of boxed chocolate, the strength of their preference translates into an *Insistence* on purchasing a particular brand.

In total, 12 items (5 for the *Insistence* construct and 7 for the construct of brand *Strength*) were designed for determining the intensity of respondents' preference for a brand. The 5 items included in the brand *Insistence* scale are: (3) *I buy this boxed chocolate regularly,* (9) *I regard this boxed chocolate as a reliable friend,* (14) *I like this boxed chocolate more than any other,* (19) *I am devoted to this boxed chocolate,* and (20) *If my usual store does not stock this chocolate, I will go to another store to buy it.*

The brand *strength* scale composed of 7 items: (10) *I feel confident in recommending this boxed chocolate to others,* (12) *This is the brand of boxed chocolate I buy most often,* (13) *In my opinion, this is the best boxed chocolate in the market,* (15) *This is the boxed chocolate I usually buy as a gift,* (23) *This boxed chocolate is good value for money,* (30) *Eating a box of this chocolate makes me feel good* (32) *This boxed chocolate portrays how I wish others to see me.*

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These items were initially factor analysed as two independent scales using principal components analysis with varimax rotation. Both scales were individually examined in detail to identify subsets of items with shared communalities. Those displaying negative correlation and others that loaded onto more than one factor were removed. Items were further considered and examined for inclusion in each scale based on the issues outlined earlier (See section 6.2).

First, items with factor loading <0.5 were considered for deletion while those with item-to-total scores equal or greater than .45 were retained. A scale reliability analysis was assessed, to examine inter-item correlation. Items with inter-item correlation equalling or greater than .30 were retained. Secondly, the communalities of the items representing the amount of variance accounted for by the component solution of each variable were assessed. Items with low communalities (<0.4) were considered for deletion. Thirdly, both scree plot and items with Eigenvalues >1 were assessed for all the items retained.

This analysis resulted in a 4 items solution for brand *strength* scale and 3 items solution for brand *Insistence* scale. At this stage in the analysis 4 out of 7 items for the brand strength construct, (10) *I feel confident in recommending this boxed chocolate to others,* (12) *This is the brand of boxed chocolate that I buy most often,* (15) *This is the boxed chocolate that I usually buy as a gift,* (13) *In my opinion this is the best chocolate in the market,* were retained for further exploratory analysis.

For the brand *Insistence* scale, 3 items (14) *I like this boxed chocolate more than any others* (20) *If my usual store does not have this brand I will go to another store to buy it* and (3) *I buy this boxed chocolate regularly* were retained for the next stage of this initial analysis.

6.2.2.1.   Determining the Dimensionality of Brand Relevance Items

Further analysis was performed on the individual scales for brand *strength* (4 items) and brand *Insistence* (3 items) before combining them into the composite scale. In

combination, further principle analysis was performed with the remaining scale items. This uncovered a factors solution with both brand *strength* and brand *insistence* items loading strongly into 1 factor. Further principal factor analysis was performed on this 1 factor solution with oblimin matrix rotation. The result of this provided a simple structure for a 5 items scale that we conceptually explained as *Brand Relevance*. At this stage, two important reasons are offered as justifications for this. They are: statistical and conceptual explanations.

Having established this independent scale, it is essential to correlate items in this scale with other sub-scales to create a composite scale for CBE. Kerlinger and Lee (2000) explains that items contained in each independent scale that are part of a whole should be examined together as a whole to ascertain that there are actually different underlying factors for the same construct. If such independent scale

> ...measures something we want – it should have a high correlational
> value with the total scale (Kerlinger and Lee, 2000, p.661).

Since the researcher's expectation is that the items within each scale for brand *Strength* and *Insistence* are homogeneous, the correlation within each scale should be distinctive when examined with other factors that make up the whole scale. Therefore, the correlation within each scale with the total score should be high. An item that correlates low with the total could be interpreted as an item that is measuring something that differs from that being measured by the other items. Such an item is therefore not homogeneous with the other items. Both brand *Strength* and brand *Insistence* scales displayed a high level of homogeneity within the total factor groupings for CBE scale. Items (10), (12), (15) and (13) from the brand *Strength* scale and items (14), (20) and (3) from brand *Insistence* scale were subjected to further analysis.

Statistically, items (10), (14), (13), (20), and (3) from the two independent scales were retained as a composite scale for brand *Relevance*. The factorability of the correlation matrix is acceptable as indicated by a large and significant Bartlett's test of spherity (χ^2 164.04, df. 10, sig. 0.000) with a Kaiser-Meyer-Olkin value of .764. The mean

ratings and the outcome of these five items reflecting the construct of brand *Relevancy* are presented in Table 6.3.

(1= "disagree"), (5-"agree")	Mean	St. Dev
(13) In my opinion this is the best chocolate in the market	4.1465	.9728
(10) I feel confident in recommending this boxed chocolate to others	4.2866	.7342
(20) If my usual store does not stock this boxed chocolate, I will go to another store to buy it	3.8599	.9231
(14) I like this boxed chocolate more than any other	3.6879	1.0055
(3) I buy this boxed chocolate regularly	2.4715	1.4303

Table 6.3 Item Analyses for Brand Relevancy Scale

The scale displayed an adequate inter-item correlation. In combination, they offered a cogent explanation that aided the factor structure identification and better explained the variance in our data. Finally, separating these items as two distinctive construct in our data would also increase the likelihood of multicollinearity within the factor structures. Items from the two constructs were retained as a good reflection of *Brand Relevance* and further analysis performed on them.

6.2.2.2. Justification for Brand Relevance

Following Agres and Dubtisky (1996) our conceptual justification for this is that the four items that uniquely load onto a single factor can be explained as a reflection of the significance and appropriateness of a brand to the consumer. They are therefore able to reflect this in a strong sense of preference and insistence upon a specific brand to which they would not consider possible alternatives at a particular time in their preference formation. The specific items solely referring to boxed chocolate was not included because brand relevance is an empirical reality, a construct that emerges from the outcome of our research. Furthermore, the item referring to this was not included to avoid a 'post-hoc' identification regarded as un-desirable in the literature on SEM (see for instance Jöreskog, 1993). Table 6.4 presents the Principal components analysis for the brand *Relevance* scale.

Eigen-Value	Variance %	Cumulative Variance %	Scale Items	Rotated Factor Loading	Scale α	Corrected Item-Total Correlation	Mean Inter-Item Correlation
2.231	55.779	55.79	13) In my opinion this is the best chocolate in the market	0.783	.7347	0.5633	0.4091
			10) I feel confident in recommending this boxed chocolate to others	0.772		0.5021	
			20) If my usual store does not stock this boxed chocolate, will go to another store to buy it	0.737		0.5746	
			14) I like this boxed chocolate more than any other	0.692		0.4490	
			3) I buy this boxed chocolate regularly	0.662		0.4282	

Row labels (leftmost column):
(13) Brand Strenght (Bstrea)
(10) Brand strength (BstreB)
(20) Brand Insistence (BinstB)
(14) Brand Insistence(BinstC)
3) Brand Insistence(BinstD)

Table 6.4 Principal Components Analysis for the Brand Relevance Scale

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6.2.2.3. Scale Reliability

Scale reliability as indicated in section 6.2.1.2 above examines the internal consistency of a scale. In all, only those items that loaded to the uniquely identifiable principal factor exhibiting simple and clear structure were retained. These comprised of five items for the construct of *Brand Relevance* that explained 55.79 of the variance in the data examined in our analysis. A further internal consistency check was assessed using coefficient alpha (Cronbach, 1951, 1990) as a test of reliability. The alpha value of .7347 for the resulting scale was checked against the acceptable level. This value is greater than .60 (Cronbach's $\alpha > 0.6$), indicating that the homogeneity of the scale could not be further improved upon through item elimination.

6.2.3. Brand Support Item Analysis

The 2 items in the brand *Support* scale (1) *I can get a refund if I am not satisfied with this boxed chocolate* (2) *This boxed chocolate's advertisements are entertaining*, were included to elicit two things. The first brand support item was included as a means of assessing the impact of specific customer enhancing support. The second item was included to assess the impact of brand communication information designed to entertain and excite the customer (see for instance Biel, 1993; Schultz, 2000).

Initial diagnosis for the brand *Support* items within a single scale reveal the Kaiser-Meyer-Olikin measure of sampling adequacy to be .500, and the Bartlett test of spherity .450, df.1 and sig. .500. As discussed earlier (See section 6. 2.1.1) the Bartlett test on its own does not represent a good basis for the overall significance of the correlation between the two items in the scale.

Although this represents a clear basis for rejecting the items as an independent scale, we went further in our analysis before making a decision. A visual inspection reveals that neither of the two items has correlation greater than .30 indicating that these items do not correlate well.

In addition to statistical underlying bases for determining the appropriateness of including the items, Hair et al (1998) recommend that one could include the items within the composite scales for other independent factors. This is to satisfy the researcher that conceptual assumption of factorability of these items as a single scale will not be appropriate (see for instance Hair et al, 1998, p.99).

The two items -brand *History* and *Support*- were factor analysed as part of the independent scale for brand *History* using principal components analysis with oblimin rotation. However, this also indicates that neither of the two items can be justified as a single independent scale. Therefore, both items were deleted from our analysis accordingly.

6.2.3.1. Determining the Dimensionality of Brand History Items

An initial analysis was performed on the items for brand *History* scale. The 3 items in this scale (4) *this brand of boxed chocolate has a rich history, (7) I have fond memories of this boxed chocolate; and (8) my memory of this boxed chocolate goes back to my childhood* did not perform according to expectation.

The first analysis yielded a 2 items solution for the brand *History* construct. One of the 3 items, (8) *My memory of this boxed chocolate goes back to my childhood,* displayed a negative correlation and was removed from the subsequent analysis. Items were considered and examined for inclusion in the final brand *history scale* at this stage based on the issues outlined in section 6.2.1.1. The result of this analysis justified the conceptual reason for a one-factor solution. The remaining two items in the combined scale provided a conceptually strong explanation and a respectable statistical explanation for the brand *History* construct.

In an information and knowledge economy, consumer preference for a specific brand at a particular time is strongly influenced by various 'bits and pieces' of information as well as traditional brand communications. Furthermore, as discussed earlier in

sections 4.3 and 4.4.1.2, issues that underlie brand *History* are of crucial importance in consumer evaluation in the new economy.

6.2.3.2.   Scale Reliability

The reliability of the resulting scale for the brand *History* sub scale was examined following the procedure specified in the literature (Churchill, 1995; Pedhazur and Schmelkin, 1991) and adopted earlier in section 6.2.2.1.3. Items that loaded to the principal factor exhibiting simple and clear structure were retained. These comprised of 2 items for the construct of *Brand History* that explained 70% of the variance in the sub-scale for the construct. An internal consistency check was assessed by examining the Cronbach's coefficient alpha of the scale. An alpha value of .5747 for the resulting brand *History* scale was checked against the acceptable level. This value was less than the .60 (Cronbach's $\alpha > 0.6$) recommended in the literature. However, this is deemed appropriate for our research because, as Cohen (1977) suggested, further considerations for an expectation of moderate effect of 0.5 significance level is appropriate considering the fact that our sample size is well above the acceptable limit of 200 suggested in the literature for considering an alpha lower than .60 (see for instance, Hair et al, 1998, p.12). The result of one factor explanation for the *Brand History* constructs is presented in Table 6.5.

Scale	Eigen-Value	Variance %	Cumulative Variance %	Scale Items	Rotated Factor Loading	Scale α	Corrected Item-Total Correlation	Mean Inter-Item Correlation
Brand History (BHistoB)	1.403	70.160	70.160	4) This brand of boxed chocolate has a rich history	0.838	.5747	.4032	0.4032
History (BHistoc)				7) I have fond memories of this boxed chcolate	0.692		.4340	

Table 6.5 Principal Components Analysis for the Brand History Scale

6.2.4. Brand Image Item Analysis

The scaling items for *Brand Image* factor grouping originally consisted of 8 items. An initial principal factor analysis was performed on the scale items. An examination of the correlation matrix shows that items (24) *This boxed chocolate has a clear image* (31) *I know what this boxed chocolate stands for*, loaded negatively on the factor. The items were removed from the scale and further analysis was performed on the remaining 6 items. The factorability of the remaining 6 items was assessed by examining the Bartlett's test of sphericity and the Kaiser-Meyer-Olkin value before performing further analysis. At this stage items (25) *This brand of boxed chocolate would convey my feelings to others* and (29) *This boxed chocolate is prestigious* performed very poorly as indicated by the low correlation with other items and were subsequently removed from the analysis.

6.2.4.1   Determining the Dimensionality of Brand Image Items

A further test of factorability of the remaining 4 items was judged appropriate by examining the Bartlett's test of sphericity (χ^2 294.192, df, 66, Sig. 0.000) and Kaiser-Meyer-Olkin measure of sampling adequacy (.760). As an independent scale this reflects a good internal consistency as further indicated with an alpha value of .8537. The composition of this scale will be addressed later in this chapter when we discuss the composite scale for CBE.

6.2.4.2.   Scale Reliability

The reliability of the resulting scale for *brand Image* was assessed by examining the loading of the items, structure and the alpha value. Items that loaded to the principal factor exhibit a simple and clear structure. These comprised of 4 items for the construct. An internal consistency check revealed the Cronbach's coefficient alpha of the scale as .85737. This value is above the range recommended (Cronbach's $\alpha > 0.6$) in the literature. The composition of this scale is therefore accepted at this stage in our analysis. Table 6.6 presents the principal components of the resulting scale at this stage in our analysis.

	Eigen-Value	Variance %	Cumulative Variance %	Scale Items	Rotated Factor Loading	Scale α	Corrected Item-Total Correlation	Mean Inter-Item Correlation
Brand Image (BimgC)	2.785	69.623	69.623	18) This boxed chocolate is very distinctive	0.885	.8537	0.7712	0.5632
Brand Image (BimagB)				27) This boxed chocolate has a positive image	0.847		0.7176	
Brand Image (BimagD)				28) This boxed chocolate expresses the way I feel	0.823		0.6754	

Table 6.6 Principal Components Analysis of the Brand Image Scale

6.2.5. Consumer Brand Equity Item Analysis

The scaling items for the latent dependent variable of *Consumer Brand Equity* initially consists of 7 scaling items: (5) *This is a boxed chocolate that I would trust,* (6) *I hold this boxed chocolate in high regard,* (11) *This boxed chocolate met my overall expectation last time I bought it,* (16) *This boxed chocolate cheers me up whenever I eat it,* (17) *I usually treat myself with a box of this chocolate,* (21) *The taste of this boxed chocolate is most satisfying to me,* and (22) *Eating this boxed chocolate is pleasurable.*

Principal factor analysis was re-run on the items. First, items with factor loading <0.5 were considered for deletion while those with item-to-total scores equal or greater than .45 were retained. A scale reliability analysis was assessed, to examine inter-item correlation. Items with inter-items correlation equalling or greater than .30 were retained. Secondly, the communalities of the items representing the amount of variance accounted for by the component solution of each variable were assessed. Items with low communalities (<0.4) were considered for deletion. Thirdly, both scree plot and items with Eigenvalues >1 were assessed for all the items retained.

Visual examination revealed that two items failed to meet an acceptable level of explanation because they do not load onto any factor. The two items (16) *This boxed chocolate cheers me up whenever I eat it* and (21) *The taste of this boxed chocolate is most satisfying to me* were deleted from our subsequent analysis.

Further analysis was re-run on the remaining 5 items. An examination of the correlation matrix shows that two items (17) *I usually treat myself with a box of this chocolate,* (22) *Eating this boxed chocolate is pleasurable* display low correlation of .26 and .28 respectively. Since a .30 factor loading translates to approximately 10 percent explanation, the loadings for these items were considered as too low for our analysis. They were deleted from subsequent analysis. This decision was based on the suggestion by Kerlinger and Lee (2000) and Hair et al (1998, p.111) that:

Factor loading greater than + .30 are considered to meet the minimal level; loading of + .40 are considered more important; and if loadings are + .50 or greater, they are considered practically significant. (Hair et al, 1998, p.111).

The remaining three items loaded onto a single factor. The items show a clear and simple structure following an oblique rotation. These items were (5) *This is a boxed chocolate that I would trust* (6) *I hold this boxed chocolate in high regard* and (11) *This boxed chocolate met my overall expectation last time I bought it.*

6.2.5.1 Determining the Dimensionality of Consumer Brand Equity Items

A further test of factorability of the 3 remaining items for the CBE scale was judged appropriate by examining the Bartlett's test of sphericity (χ^2 164.604, df, 67, Sig. 0.000) and Kaiser-Meyer-Olkin measure of sampling adequacy (.74). As an independent scale this reflects a good internal consistency as further indicated with standardized alpha value of .7468. The 3 items were evaluated as valid and reliable observed items for the latent dependent construct of *Consumer Brand Equity.*

6.2.5.2 Scale Reliability

The reliability of the resulting scale for *brand Image* was assessed by examining the loading of the items, structure and the alpha value. Items that loaded to the principal factor exhibit a simple and clear structure. These comprised of 4 items for the construct. An internal consistency check revealed the Cronbach's coefficient alpha of the scale as .7468. This value is above the range recommended (Cronbach's $\alpha>0.6$) in the literature. The composition of this scale is therefore accepted at this stage as in our analysis. Table 6. 7 presents the principal components of the CBE construct.

Consumer Brand Equity	Eigen-Value	Variance %	Cumulative Variance %	Scale Items	Rotated Factor Loading	Scale α	Corrected Item-Total Correlation
Consumer Brand Equity	1.907	63.564	63.564	11) This boxed chocolate met my overall expectation last time I bought it	0.867	.7062	0.3813
				5) This is boxed chocolate that I would trust	0.852		6315
				6) I hold this boxed chocolate in high regard	0.655		6051

Table 6.7. Principal Components Analysis of the CBE Scale

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6.2.6. Outcome of Scale reduction and model identification

Following the above, exploratory factor analysis was also applied to summarise the interrelationships of factors to facilitate the conceptualisation of consumer brand equity. The three factors discussed above were deemed appropriate with Eigenvalues over one and consistent scree plot image. Each of the factors, therefore, accounts for the variance of at least two scale items in order to be retained in the composite scale. The structure of consumer brand equity scale exhibits three sub-constructs that are evident in the five brands of boxed chocolates in our investigation. Table 6.8 presents a three factors explanation for each of the five competing brands of boxed chocolate in our investigation.

Brands	Variance Extracted	Factor 1	Factor 2	Factor 3
Total Data	66.064			
Terry's All Gold	65.38	Relevance	Image	History
Rowntree's Quality Street	67.81	History	Image	Relevance
Cadbury's Milk Tray	69.59	Relevance	History	Image
Ferrero Rocher	67.74	Relevance	History	Image
Classic Selection (Woolworth)	66.82	History	Relevance	Image

Table 6.8. Factor Extractions for Competing Brands of Boxed Chocolate

Three of the competing brands of boxed chocolate –Cadbury Milk Tray, Ferrero Rocher and Terry's All Gold - produced identical factor structures by explaining a relatively similar number of factors in each group. Both Rowntree's Quality Street and 66.82 percent of Woolworth Classic Selection are accounted for by the three-factors solution. However, the content of the factors are somewhat different. Consumers regard Image as an important factor in Rowntree's Quality Street and Brand History as most important in Woolworth Classic Selection. Although there are differences, in combination the factors actually exhibit logical structures that reflect

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the differing criteria evaluation of brands across the three factors but in different order of importance. The changes are realistic and complimentary to the overall four-factor solution. Therefore, the differences reflected in this structure are not regarded as significant. This exploratory research suggests that CBE can be regarded as a concept that is applicable to competitive brands and exhibiting equivalent underlying dimensions.

However, there is the need for further rigorous analysis to confirm the reliability and validity of this composite scale. This was undertaken through Confirmatory Factor Analysis, using SIMPLIS-LISREL statistical package. In the next section, we examine the scale reliability further and validity further.

6.2.6.1. Section Conclusion

This section outlined the exploratory factor analysis techniques by which the measurement items are reliably identified as a pre-requisite step to the primary technique of analysis for our investigation. We have established in our earlier discussion that the screening items were drawn from published literature discussed in chapter two and three. These items were then grouped in conformity with the published literature and the conceptual framework presented in chapter four. The result of the composite scale from the principal factor analysis is presented in Table 6.9.

Eigen-Value	Variance %	Cumulative Variance %	Scale Items	Rotated Factor Loading	Scale α	Corrected Item-Total Correlation
Brand Relevance						
2.231	55.779	55.79	13) In my opinion this is the best boxed chocolate in the market	0.783		0.5633
			10) I feel confident in recommending this boxed chocolate to others	0.772	.7347	0.5021
			20) If my usual store does not stock this boxed chocolate, I will go to another store to buy it	0.737		0.5746
			14) I like this boxed chocolate more than any other	0.692		0.4490
			28) This boxed chocolate expresses the way I feel	0.603		0.4950
Brand History						
1.403	70.160	70.160	4) This brand of boxed chocolate has a rich history	0.864	.5747	.4032
			7) I have a fond memory of this band	0.692		.4032
Brand Image						
2.785	69.623	69.623	18) This boxed chocolate is very distinctive	0.885	.8537	0.7712
			27) This boxed chocolate has a positive image	0.847		0.7176
			26) This boxed chocolate adequately convey my sentiments	0.823		0.6754
Consumer Brand Equity						
1.907	63.564	63.564	11) This boxed chocolate met my overall expectation last time I bought it	0.867	.7062	0.3813
			5) This is boxed chocolate that I would trust	0.852		6315
			6) I hold this boxed chocolate in high regard	0.655		6051

Table 6.9. Principal Components Analyses for the Composite Scale

6.3. SCALE RELIABILITY: INTERNAL CONSISTENCY

A crucial part of the construct clarification process entails the systematic testing of the instrument (Cook and Campbell 1976; Pedhazur and Schmelkin, 1991) that emerged through the item analysis. The resulting multi-item scale was evaluated for accuracy and applicability (Cook and Campbell, 1976; Spector 1992). This was operationalised by subjecting the items uncovered after the EFA to three rigorous forms of data accuracy tests (Malhotra and Birks, 2000, p.308). These are tests for: reliability, validity, dimensionality and generalisability.

Reliability of the scale was examined to determine the level of internal consistency among items in the summated scale developed for this investigation. Reliability being a necessary –but not sufficient- condition for validity, reliability was assessed before validity. Reliability refers to the extent to which a scale produces consistent results. Assessing reliability involves ascertaining that only those items that accurately capture the different variations within the principal components of CBE are included in the scale since items initially developed for this purpose are expected to reflect the construct of CBE.

An underlying assumption of all reliability measures is that they reveal the degree to which the observed variable measures the 'true' value within a scale and is 'error free'. Given this expectation, a reliable measure should show greater internal consistency with high correlation than a less reliable measure (Hair, et al, 1998, p.9). One basis for finding out which items are good indicators of a construct is the level of the positive correlation between items exhibiting internal consistency (Bollen, 1984; Kelloway, 1998). In considering the internal consistency of the CBE scale, two essential operations were undertaken for this study: split-halves sample and Cronbach's alpha analysis.

6.3.1.1.   Split Half – A Step in Scale Reliability

Following item purification and before item analysis, the sample of data collected was split into two halves. Sub-sample B was kept for later use in cross-validation. Sub-sample A represents the developmental sample for the initial exploratory analysis (EFA) and confirmatory procedure for the measurement model (CFA).

The split-halves method is deemed appropriate for assessing internal consistency when the outcome of such analysis is comparable and cross-validated across samples (Hair, et al, 1998; Malhotra and Birks, 2000). In checking for internal consistency reliability, the EFA check is interpreted by examining both the levels of co-relations between the two sub-samples and the level of Cronbach alpha for each resultant scale from the sub-samples. In the CFA procedure, LISREL 8.30 provides a measure of cross validation index (ECVI) that can be expected between the two samples. This is reported in Table 6.22 later in this chapter.

6.3.1.2. Cronbach's Coefficient Alpha

Coefficient alpha represents one of the most widely used reliability measures (Churchill, 1999; DeVellis, 1991). Cronbach's alpha (Cronbach, 1951) is the average of all possible split-half coefficients resulting from different ways of splitting the scale items (Peterson, 1994). Its value ranges from 0 to 1 and a value of 0.6 or less generally indicates unsatisfactory internal consistency reliability, while a value of 1 may actually indicate that a single item is more appropriate for measuring the construct. An important characteristic of Cronbach's alpha is that its value tends to increase with an increase in the number of scale items. Therefore, Cronbach's alpha value may be artificially, and inappropriately, inflated with inclusion of redundant scale items.

Although there is no fixed absolute value for Cronbach's alpha in the social sciences, Nunnally (1967) suggested that for most research, a reliability coefficient of .7 to .8 is sufficient. In marketing research, the commonly acceptable reliability value is also .7 upwards (Bagozzi, 1982; Hair, et al, 1998; Walker, 1994) and a threshold value of .6 may be acceptable if it is conceptually justifiable. Cronbach's coefficient alpha (α)

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was calculated for the scale measuring each source and dimension of brand equity. The reliability concern in this procedure is to ensure that the construct indicators reach the threshold value for acceptable reliability (see section 6.2.2.4)

6.3.1.3. Dimensionality of CBE Scale

The multi-item scale includes several sets of items designed to measure different aspects of CBE as a multi-dimensional construct. Since the scale contains items measuring different but related facets of CBE, it is mandatory to assess the basis for the hypothesis that the subset of measurement items has something in common and can be regarded as alternative indicators of the same construct (Gerbing and Anderson, 1988). As uni-dimensionality is a characteristic of a set of indicators that have only one underlying trait or concept in common, it is important to establish the dimensionality of CBE as a construct.

Given the interrelationship between dimensionality and a measure of reliability such as Cronbach's alpha, both measures are sometimes considered as related analysis. However, alpha without uni-dimensionality is generally favoured, while establishing uni-dimensionality may not preclude the assessment of coefficient alpha (Churchill, 1999). One may not assess uni-dimensionality alone as a sufficient basis for inferring reliability, but uni-dimensionality and Cronbach's alpha could be assessed within the same data set (Pedhazur and Schmelkin, 1991). Because of this interaction, there are differing methodological perspectives on the issue of which one of the two measures should be assessed first. As uni-dimensionality can be examined from the match between the selected indicators and the theoretical definition of a construct, it is important to establish strong reliability before uni-dimensionality (e.g., Hair, et al., 1998, p.584).

Two important approaches for establishing uni-dimensionality of a scale are apparent in published literature. The first approach is that reliability should only be assessed following the establishment of uni-dimensionality of constructs (see for instance Gerbing and Anderson, 1988; Hair, et al, 1998; Pedhazur and Schmelkin, 1991). The

second approach is that uni-dimensionality should only be assessed after the scale has been purified and the reliability of the scale has been established (Churchill, 1999).

Underpinning the differences in the approach in scholarly literature is the argument that uni-dimensionality is itself an assumption that underlies the calculation of reliability. For instance, if many items explain a factor with an acceptable alpha level, then they must be explaining the same factor. However if the level reaches 1 (one), then the items in the scale need to be reduced. However, reliability is also demonstrated when the indicators of a construct have an acceptable fit on a single-factor. One may, therefore, argue that an analysis of uni-dimensionality should precede the assessment of reliability. Hence, it is important to establish the dimensionality of CBE as a construct. Furthermore, the use of reliability measures (such as Cronbach's alpha) does not ensure uni-dimensionality, but instead assumes that it exists. (Hair, et al, 1998, p.611).

A balance is struck between these two approaches by purifying the individual scales that make up the composite scale through the EFA procedure before assessing dimensionality. The dimensionality of CBE was determined through the EFA process.

Evidence of uni-dimensionality is inferred from the resulting analysis of EFA if items load significantly on a specific factor that is a non-trivial factor and makes conceptual sense. This provided evidence to suggest that the items within the CBE scale are uni-dimensional (see for instance Hair, et al, 1998, p.237; Spector, 1992).

6.3.2. Scale Validity: Reducing Measurement Error

Validity concerns the assessment of systematic error components within the measurement instrument. The hallmark of a good scale is to reduce error within it to a minimum. It is essential that the research conclusion actually infers what the theory set out to find in the empirical test with minimal systematic error. For instance, do the indicators accurately measure CBE as conceptualised? Does the measure adequately reflect the depth of the constructs as specified by the research? Five different types of validity issues are of focal importance in scale reliability and construct clarification

(Bagozzi, 1988, p.89). The main types are content and construct validity. Construct validity further entails convergent, discriminant and nomological validity.

6.3.2.1.   Content Validity

Content validity relates to whether the instrument is representative of the universe of the property being measured (Kerlinger, 1992, p.417). In the analysis reported here, this was confirmed by examining the usage occasions relating to respondents' uses of, and experience with, boxed chocolate in different situations. In doing this, the research study attempted to determine the content to which the attitudinal response scores referred (i.e., whether they represent uses and experiences of brands in different situations, and what can be inferred from them).

6.3.2.2.   Construct Validity

Construct validity addresses the question of what construct the scale is actually measuring. When assessing construct validity, the researcher attempts to answer theoretical questions such as why the scale works and what deductions can be inferred about the underlying theory (Cronbach, 1971, p.477). Construct validity is a rigorous standard and the most sophisticated and difficult form of validity to establish (Malhotra and Birks, 2000, p.314). Construct validity includes nomological, convergent, and discriminant validity.

6.3.2.3.   Nomological Validity

For a scale to exhibit nomological validity, one needs to show the extent to which it has achieved the theoretically predicted relationship. Several steps are important in ensuring nomological validity (Malhotra and Birks, 2000 p.308), and nomological validity can be demonstrated in different ways. First, similar theoretical models can be formulated that lead to operational deductions, tests and inferences drawn from them. Secondly, it can be shown by the extent to which the scale correlates in theoretically predicted ways with measures of different but related constructs. In the first instance,

nomological validity was undertaken with systematic explanations of (and comparisons with) several constructs that are similar to the construct of CBE and its dimensions (see section 4.5) Most importantly, the structural model provides a further measure of nomological validity (Schumacker and Lomax, 1996, p.129). This is presented in Chapter 7 which deals with the structural model of CBE.

6.3.2.4.   Convergent Validity (CFA)

Convergent validity is the extent to which measures designed to assess the same construct are related. There are a number of checks for convergent validity, and it is not necessary that all measures be arrived at by using a separate analytical technique (see for instance Malhotra and Birks, 2000, p.308; Pedhazur and Schmelkin, 1991). Two measures of convergent validity checks were conducted in this investigation. First, a high correlation among items within the scale serves as the basis for inferring convergent validity. Higher correlation among measures, therefore, indicates convergent validity.

Secondly, the reliability of an individual scale represents a measure of convergent validity among those items that comprise such a scale (see for instance, Fornell and Larcker, 1981). The reliabilities of the factors calculated for all the independent sub-models and composite scales are well above 0.6 thereby meeting the minimum suggested in the literature (Hair, et al, 1999). This is an indication that convergent validity is achieved.

Thirdly, a more stringent means of assessing convergent validity is the use of variance extracted as a test of internal stability (Fornell and Larcker, 1981). As a measure consists of 'true' or actual score and errors, variance extracted for a latent factor represents the true score while the rest is error variance. For example, if a variance extracted value of .40 is achieved for a factor, .60 is the error variance for that factor. Variance extracted reflects the overall amount of true score variance, while the rest is error variance in the indicators accounted for by the latent construct. This can be calculated with formula 6.1 below.

$$\text{Variance extracted} = \frac{\sum(\text{standardised loadings}^2)}{\sum(\text{standardised loadings}^2) + \epsilon j}$$

Further guidelines suggest that the variance extracted value should exceed 0.50 for a construct since the hallmark of a measure that is representative of a construct is its ability to capture more of the characteristics of such a construct than random error (Churchill, 1999).

Upon examining the CBE scale, variance extracted for all the independent scales and the composite scales were well above the .50 range, thereby satisfying another criteria for convergent validity assessment (See for instance, Loehlin, 1998; Schumacker and Lomax, 1996). Table 6.9 below highlights the reliability and variance extracted for three independent factors. Therefore, convergent validity is demonstrated within the CBE scale.

	Construct Reliability	Variance Extracted
Factor		
Brand Image	.8537	.69
Brand Relevance	.7347	.55
Brand History	.5747	.70

Table 6.10 Construct Reliability and Variance Extracted

6.3.2.5. Establishing Discriminant Validity for this Investigation

Discriminant validity is the extent to which a measure does not correlate with other constructs from which it is supposed to differ. Essentially, discriminant validity is established when two variables theorised to be uncorrelated are empirically found to be so. Demonstrating this validity means that a measure needs to demonstrate a lack of correlation among different constructs. This is indicated by a low to moderate

correlation score among items that are meant to measure conceptually different, but related, constructs (Anderson and Gerbing, 1988).

Another test of discriminant validity can be inferred from the examination of the chi square differences of the competing nested model (Anderson and Gerbing, 1988; Pedhazur and Schmelkin, 1991). If the chi squared differences of the theoretically conceptualised model and the nested model differ, then discriminant validity is achieved. The chi square value of 470.06 for model A, compared to 585.92 for model B, indicates that the difference between the two models is significant at p<0.001 level and indicates deterioration. Furthermore, the GFI figures of 45 and 35 respectively give further credence for this conclusion.

6.4. CONFIRMING THE CONSUMER BRAND EQUITY MEASUREMENT MODEL

Following the exploratory factor analysis presented above, this section of the chapter presents the operationalisation of the measurement model with Confirmatory Factor Analysis (CFA). Confirmatory factor analysis is a form of structural equation modelling that deals directly with how well a measure reflects its intended constructs (cf. Kelloway, 1998, p.2). It is also the first step in measurement estimation before examination of the structural model relationships (presented in chapter 7). The application of confirmatory factor analysis is particularly appropriate in instances in which there is debate about the factors of a scale or measure (Kelloway, 1998; Schumacker and Lomax, 1996). Confirmatory factor analysis is consistent with the two-steps approach to development and analysis within the SEM family of models (See for instance, Anderson and Gerbing, 1988; Kelloway, 1998, p.2; Schumacker and Lomax, 1996).

The measurement model is estimated before examining the structural model relationships. The measurement model represents a sub-model in structural equation modelling in which the indicators for each identified construct are specified and their

reliability assessed in preparation for estimating the structural relationships of the model. The measurement model is similar in form to factor analysis. However, unlike exploratory factor analysis, which is:

> ...guided by intuitive and ad hoc rules, structural equation modelling casts factor analysis in the tradition of hypothesis testing, with explicit tests of both the overall quality of the factor solution and the specific parameters (e.g., factor loadings) composing the model. (Kelloway, 1998, p.2)

In EFA, the researcher can specify only the number of factors with all variables loading on to each one of them. In CFA, however, the researcher must also specify which variables are indicators of which specific constructs and variables have no loading other than those that are specifically specified for each construct. An important aspect of CFA is that it includes and accounts for the stochastic error terms in specifying the measurement relationships in a model. These are usually interpreted to be the sum of specific factors and random measurement errors in the observable indicators.

Confirmatory Factor Analysis (CFA) is a measurement model within the family of SEM analysis. In common with other models within SEM analysis, there is a linear procedural process established in the literature for carrying out CFA (see for instance, Bollen and Long, 1993, p1-2; Jöreskog and Sörbm, 1996; McGrath, Martin and Kukla, 1982; Schumacker and Lomax, 1997, p.63). This linear procedure may not reflect the actual practice. It does, however, present a clear and heuristic advantage for drawing attention to major concerns, issues and decisions involved in the development and evaluation of CFA analysis (Kelloway, 1998, p.7).

The process is epitomised by five steps embedded in two major stages that characterise most applications of SEM. Bollen and Long (1993, p.1-2) describe these five stages in CFA mode as:

1. Model Specification
2. Model Identification
3. Model Estimation
4. Testing Model fit
5. Model Respecification

6.4.1.   Measurement Model Specification

In operationalising a CFA model, clarifiying the proposed model relationship is the first priority (Dayton, 1998; Kelloway, 1998, p.55; Schumaker and Lomax, 1996). One could either develop rival models from the literature or obtain a nested model by constraining all the inter-factor correlation to equal 1 (Kelloway, 1998). A rival model (Figure 6.1) was developed from the findings of very early work on brand equity where a link between branding and competitive strategy was yet to be established in discussions about BE. A nested model was obtained with the uni-dimensional factor by constraining all inter-factor correlation to equal 1.0. The uni-dimensional model is depicted   in   Figure   6.1.
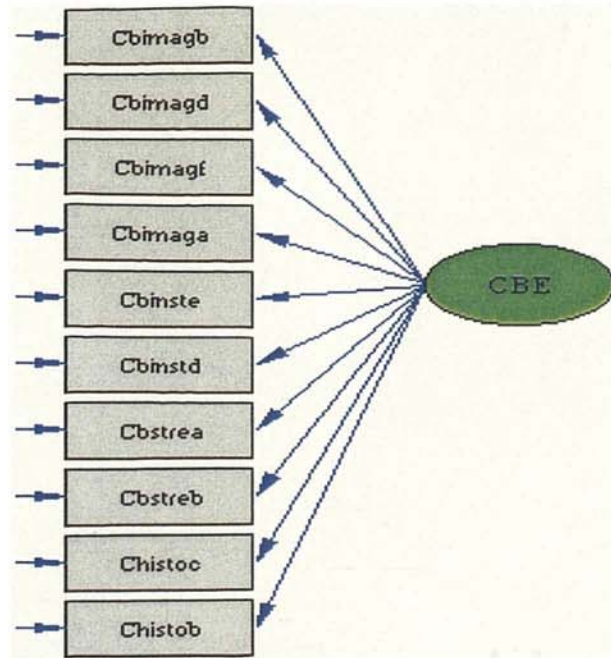
Figure 6.1. Uni-dimensional Model of Consumer Brand Equity

In comparative models testing model fit is based on the postulation of several models from which the best fit for the data is identified. The literature analysis and exploratory factor analysis reported in section 6.2 identified three factors measurement model for consumer brand equity. These factors were label brand image, brand relevance and brand history. These dimensions of the consumer brand equity model are correlated as first order factors. This measurement model is depicted in Figure 6.2 overleaf.
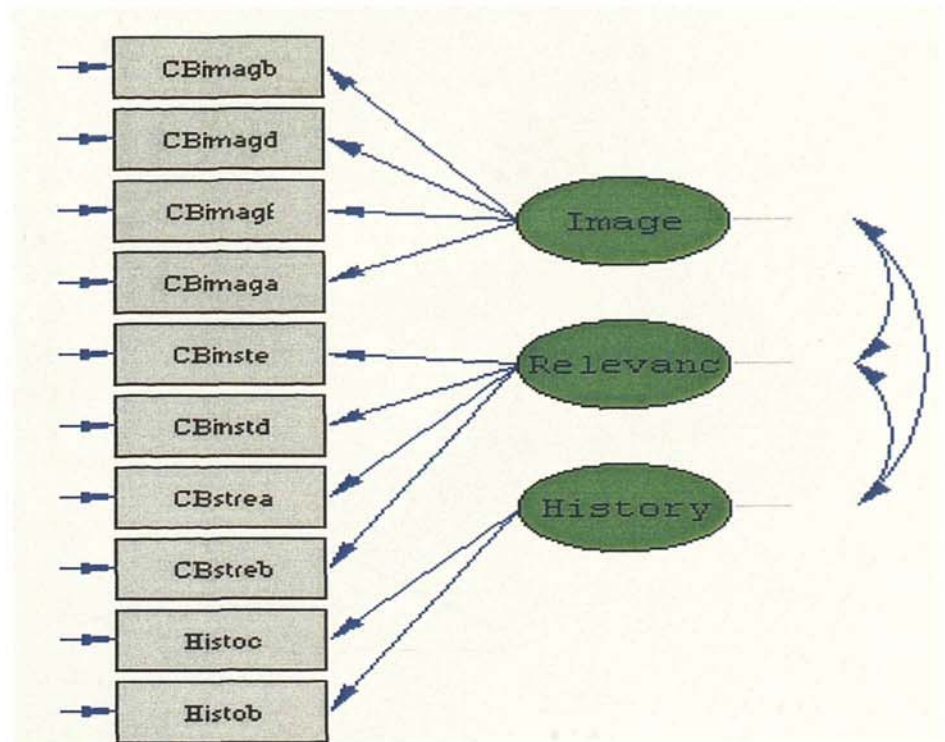
Figure 6.2 Measurement Model of Consumer Brand Equity
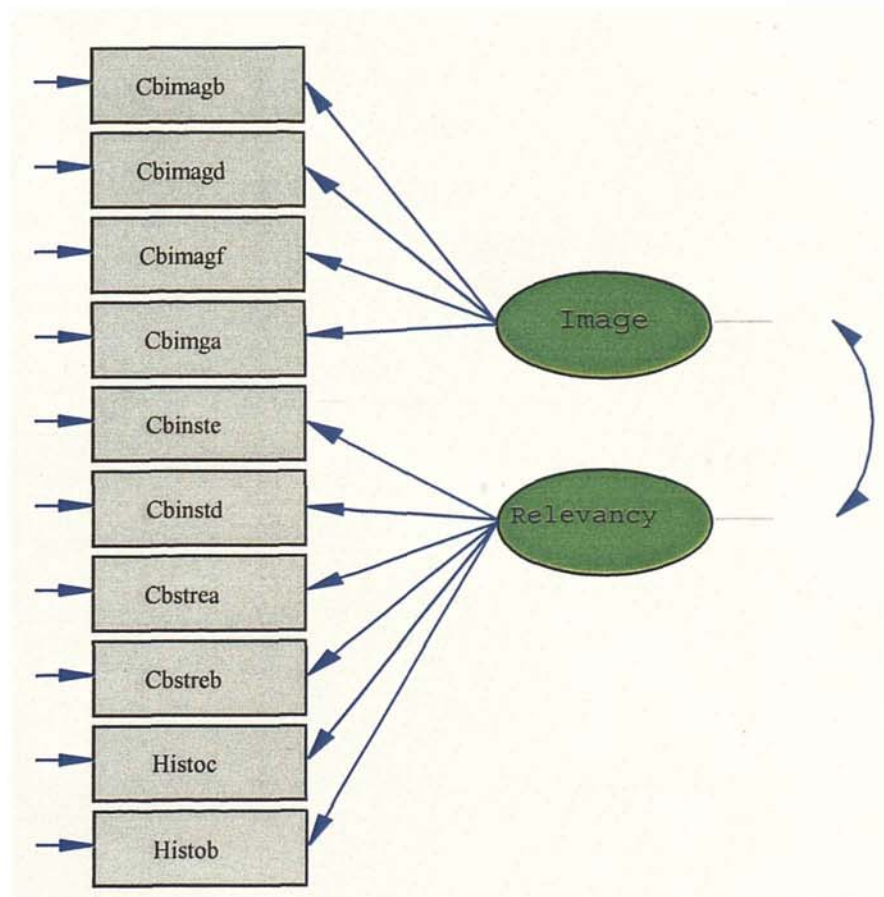
Figure 6.3. Model 2: Competing Measurement Model of Consumer Brand Equity

6.4.1.2. Measurement Model Identification

The issue of model identification in confirmatory factor analysis is underpinned by considerations for specific rules. Bollen (1989) indicates that a consideration in measurement model identification is that of how many observed variables should be considered for measuring latent variables. The rule is that there should be at least three indicators (observed variables) for each factor or at least two indicators for each factor, if the factors are correlated (i.e., oblique solution). The assumption in both rules is that the unique factor loading – the error terms - are uncorrelated.

These rules are important in the sense that a sufficient number of indicators per factor must be available for estimation problems such as non-convergent and improper solutions (Anderson and Gerbing, 1988; Kelloway, 1998). Another consideration is that a large number of observed measures are more likely to elucidate all facets of the construct of interest. However, the need for a large number of measures needs to be balanced with the need for parsimonious representation of the measurement structure that best represents a set of observed variables (Baumgartner and Homburg, 1996).

Although the three-indicator rule is perhaps the most commonly cited, empirical evidence supports the use of two indicators for each latent variable (see for instance Bagozzi, 1980, 1982; 1994; Bagozzi and Foxall, 1996). In this investigation, two factors are identified with four indicators each and one factor with two indicators. All the factors were allowed to correlate.

6.4.1.3. Estimation of Measurement Model

The third stage in the measurement model development is the estimation of the measurement model. The confirmatory factor analysis technique reflects measurement models in which observed variables epitomise and define latent variables. Latent variables in themselves are not directly measured but rather inferred from the structure of the covariance derived from analysis (Schumacker and Lomax, 1996). This means that CFA involves the estimation of unknown parameters through factors loading or path coefficients (Jöreskog and Sörbom 1996; Kelloway, 1998).

Measurement model estimation and specification involve several operational procedures. These procedures are systematically designed to take account of various issues in the analysis. Bagozzi and Heatherton (1994) suggested three key operations to undertake within the estimation procedures. A fourth operation is the actual testing of both the structural and measurement model simultaneously and examined in chapter 7 of this thesis.

Estimation of measurement model: Each of the independent scales comprising the BE scale is estimated separately.

Partial aggregation: Subsets of items comprising a pair of constructs are combined for separate estimation. This move explicitly takes into account unreliability and allows some assessment of uni-dimensionality while minimising model complexity. However, combining subsets of items is done arbitrarily.

Total aggregation: Estimation of the measurement model for all the constructs comprising the model without constraining the covariance matrix of the constructs.

6.4.1.4. Estimation of Measurement Models for Each Independent Construct

A pattern matrix for the brand image construct with the percentage of variance that it explained in the data and Cronbach's alpha for the scale are shown in Table 6.9. The table also presents the coefficient alpha for the scale at .8537. This indicates a very good level of reliability.

Component		Variance explained	Coefficient Alpha
	Factor 1		
Bimage Bc	.885		
Bimage dC	.847	69%	.8537
Bimage aC	.823		
Bimage fC	.778		

Table 6.11 Pattern Matrix for Brand Image Items: Variance Explained by the Data and Scale Alpha

Components	Factor 1	Variance explained	Coefficient Alpha
Brand strength aC	.783		
Brand insistence eC	.772	55%	.7347
Brand insistence dC	.737		
Brand strength bC	.692		

Table 6.12 Pattern Matrix for Brand Relevance Items: Variance explained by the Data and Scale Alpha

Brand History Construct

Component	Factor	Variance explained	Coefficient Alpha
Bhisto Cc	.838		
Bhisto Bc	.838	70%	.7246

Table 6.13 Pattern Matrix for Brand History Items: Variance explained by the Data and Scale Alpha

The pattern matrix for brand relevance items and the resultant scale reliability is shown in Table 6.12, while that of brand history follows in Table 6.13.

6.4.2.   Partial Aggregation of the Measurement Model for a Pair of Independent Constructs

Following the estimation of the measurement models for each independent construct and the reliability analysis of the resulting scale for each one of them, the next stage in the scale development process is to pair up two constructs at a time for further estimation. This is called partial aggregation (Baumgartner and Homburg, 1996). It enables one to test how well the items discriminate between the different independent constructs that are being measured as composites of the consumer brand equity scale.

Items comprising a pair of independent constructs were combined and subjected to the factor analysis procedure using SPSS version 10.0. Principal axis factor was used with oblimin rotation. Oblimin rotation was deemed appropriate because of the expected correlation between the brand image and brand relevance as independent constructs. The factors are conceptually linked and such linkage may induce correlation between the factors. Hence, the application of oblimin rotation is justified. Partial aggregation analyses were carried out in the order reflected in tables 6.7-6.11.

	Component		Variance explained	Coefficient Alpha
	1	2		
Bimage bC	.868			
Bimage dC	.807			
Bimage aC	.713			
Bimage fC	.690		63%	.7902
Binst eC		.707		
Bstre aC		.679		
Binst dC		.596		
Bstre bC		.583		

Table 6.14 Pattern Matrix for Brand Image and Brand Relevance Items: Variance Explained and Scale Alpha

6.4.2.1.   Brand Image and Brand Relevance

A pattern matrix for brand image and brand relevance items clearly illustrates that all items distinguish between the dimensions of the two constructs of brand image and brand relevance. These items explain 63% of variance in the data analysed with scale reliability of .7902 indicating a very good internal consistency between the items.

6.4.2.2.   Brand Image and History

A pattern matrix for brand image and brand history items also clearly illustrates that all items distinguish between the dimensions of the two constructs of brand image and brand history. These items explain 70% of variance in the data analysed with

Cronbach's alpha of .7746 for the scale indicating a good, respectable reliability of the internal consistency between the items comprising the two independent scales.

	Component		Variance explained	Coefficient Alpha
	1	2		
Bimage bC	.917			
Bimage dC	.773			
Bimage fC	.775		70%	.7746
Bimage aC	.637			
Bhisto cC		.682		
Bhisto bC		.577		

Table 6.15. Pattern Matrix for Brand Image and Brand History Items: Variance Explained and Scale Alpha

	Component		Variance explained	Coefficient Alpha
	1	2		
Binst eC	.741			
Binst dC	.651			
Bstre aC	.651		61%	.7474
Bstre bC	.452			
Bhisto cC		.638		
Bhisto cC		.537		

Table 6.16. Pattern Matrix for Brand Relevance and Brand History Items: Variance Explained and Scale Alpha

6.4.2.3. All Three Constructs Simultaneously

Finally, all items comprising the Consumer Brand Equity Scale were factor analysed simultaneously. As in the case of the partial aggregation of two constructs, this simultaneous analysis ensures that each item measuring the independent constructs validly discriminates between them. The result of the factor analysis shows that these

items explained 66% of the variance present in the empirical data analysed. The reliability of the scale is also very good. This is indicated by a Cronbach's alpha value of .8011.

	Component			Variance explained	Coefficient Alpha
	1	2	3		
Bimage bC	.886				
Bimage dC	.855				
Bimage aC	.788				
Bimage fC	.785				
Binst eC		.854		66%	.8011
Binst dC		.729			
Bstre aC		.710			
Bstre bC		.597			
Bhisto cC			.892		
Bhisto bC			.596		

Table 6.17. Pattern Matrix for all Consumer Brand Equity Scale Items Analysed Simultaneously: Variance Explained and Coefficient Alpha

	Image	Relevance	History
Image	1.00		
Relevance	0.36	1.00	
History	0.34	0.58	1.00

Table 6.18 Correlation Matrix of Independent Variables

6.5. TESTING MODEL FIT

The assessment of model fit is perhaps one of the most important aspects of CFA. More has been written about it than any other aspect of SEM (see for instance, Bentler and Bonnet, 1980; Bentler, 1990; Brannick, 1995; Jöreskog, 1993). Assessing model fit involves the interpretation of how well the conceptualised measurement model fits

the empirical data. The process is comparative in nature because it involves choosing between numerous fits indices that subjectively indicate whether the data fit the theoretically postulated model (Jöreskog and Sörbom, 1993; Schumacker and Lomax, 1996).

To carry out this assessment, the fit index analysis for alternative models is checked in order to identify the model that provides the best fit for the empirical data. There are at least two main conventions for the assessment of model fit that are apparent in the literature (cf. Tanaka, 1993): the assessment of the *absolute* fit of the model and the assessment of the *comparative* fit. Comparative fit is further divided into comparative and parsimonious fit with a number of indices available for each of them.

6.5.1. Absolute Fit: Global Fit Assessment

Tests of absolute fit are concerned with the ability to reproduce the original covariance in data in another instance. Model fit criteria commonly used are chi-square (χ^2), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI) and root-mean-square residual (RMR) (Jöreskog and Sörbom, 1989). These criteria are based on differences between the observed and model-implied correlation or covariance matrix. There are other criteria indices for interpreting CFA data as discussed below.

6.5.1.1.   Chi-square (χ^2)

This is one of the most popular fit indices. A significant value relative to the degree of freedom (df) indicates that the observed and estimate matrices differ. This statistical significance indicates the probability that such observed differences are due to sampling variation. One can infer that a nonsignificant χ^2 value in the two matrices is not statistically meaningful (Schumacker and Lomax, 1996, p.125). The aim in a CFA analysis is to obtain a nonsignificant χ^2 with an associated degree of freedom. This indicates that the data fits the model. There may be other models that fit the data better but have yet to be postulated.

6.5.1.2. Calculating (χ^2): Maximum Likelihood Approach

Three approaches are commonly used to calculate χ^2 in the literature (Loehlin, 1991, p.59; Schumacker and Lomax, 1996, p.125). These are maximum likelihood (ML), generalised least squares (GLS), and ordinary least squares (OLS). LISREL 8.30 provides several approaches for estimating the best possible fitting solution. However, ML is the most popular of the techniques used in published research studies. This popularity may be due to the fact that:

> ML estimates are consistent, unbiased, efficient, scale-invariant, scale-free, and normally distributed if the observed variables meet the multivariate normality assumptions (Schumacker and Lomax, 1996, p125).

Although the GLS approach has the same properties as the ML approach, it has a less stringent multivariate normality assumption. This may explain the popularity of ML in the published research. ML is also used to estimate the χ^2 values in this study. An important shortcoming of χ^2 is its sensitivity to sample. As sample size increases—generally above 200—χ^2 value tends to indicate a non-significant probability level. The test is also sensitive to departure from multivariate normality of the observed variable. In fact, Jöreskog and Sörbom (1996, p.28) suggested that:

> Instead of regarding χ^2 as a test statistic, one should regard it as a goodness-of-fit (or badness-of-fit).

Given these and the associated problems with the χ^2 test as an assessment of model fit, alternative fit indices have been proposed. Gerbing and Anderson (1992, p.134) describe the ideal properties that such indices should possess:

- It should indicate degree of fit along a continuum bounded by values such as 0 and 1, where 0 represents a lack of fit and 1 reflects perfect fit,

- Be independent of sample size, and

- Have known distributional characteristics to assist interpretation and allow the construction of a confidence interval.

The result of this maximum likelihood estimation is reported in Table 6.19.

Model	Number of factors	χ^2	df	GFI	AGFI	RMR	RMSEA	NFI	PNFI	PGFI
1	3-factor oblique	550.59	45	.91	.85	0.056	0.091	.87	.62	.53
2	2-factor oblique	470.06	34	.81	.69	0.088	0.17	.92	.49	.50
3	1-factor	585.92	35	.69	.51	0.14	0.24.	.38	.29	.44

Table 6.19. Fit Indices for Comparative Models 1, 2 and 3

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6.5.1.3. Goodness-of-fit (GFI) and Adjusted Goodness-of-fit (AGFI) Indices

The goodness-of-fit-index (GFI) is defined as the minimum of the fit function after the model has been divided by fit function before any model has been fitted. The GFI ranges from 0 to 1, with values exceeding 0.9 indicating a good fit to the data. However, GFI has no known sample distribution (Jöreskog and Sörbom, 1996, p.30). Therefore, rules about index indicating a good fit to the data are highly arbitrary and should be treated with caution (Kelloway, 1998, p.28). LISREL calculates GFI analysis and provides a solution as part of its output. The adjusted goodness-of-fit-index provides an adjusted value for degree of freedom (df) as an additional fit index.

6.5.1.4. Root-mean-square (RMR) and Root-mean-square-error of approximation (RMSEA)

Root-Mean-Square-Residual (RMR) is a measure of the average fitted residual within the data. It can only be interpreted in relation to the size of the observed variances and covariance between observed and implied matrices. The lower bound is 0, and lower value is an indication of good fit (Jöreskog and Sörbom, 1996; Kelloway, 1998). However, there is no indication in the literature of how low is an acceptable level of RMR.

Root-Mean-Square-Error of Approximation (RMSEA) (Steiger, 1990) is another index reported in LISREL output for assessing global fit of CFA measures. Similar to RMR, RMSEA is based on the analysis of residuals. Steiger (1990) indicates different levels of acceptance guidelines that one may use in data fit assessment. This is highlighted in Table 6.20 overleaf.

RMSEA value	Global data fit indication
>0 .10	Good fit to the data
>0.05	A very good fit to the data
>0.01	Outstanding fit to the data

Table 6.20. RMSEA Test of Significance (based on Steiger, 1990)

However, Steiger (1990) also notes that these values are rarely obtained. Still, RMSEA has an important advantage because it goes beyond estimation to the provision of a confidence interval of 90% for assessing fit. LISREL 8.30 also tests the significance of the RMSEA by testing whether the actual value obtained is significantly different from the value that Steiger suggests is a very good fit to the data.

Finally, while global fit indices represent a popular means of assessing model fit in LISREL, Jöreskog and Sörbom (1996, p.30) emphasised that these measures "do not express the quality of the model judged by any other internal or external criteria." Therefore, it is important to move beyond the assessment of global fit to evaluate the results of any type of SEM.

6.5.2.   Model Comparison

Owing to the problems of assessing the absolute fit of a model to the data, the popularity of assessing comparative fit is growing in the literature. Comparative fit deals with whether the model being considered is better than a competing model in accounting for observed data. Comparative fit assessment is based on the examination of a 'baseline' model in comparison with theoretically derived models (Kelloway, 1996, 1998). Although other means of fit assessment also depend on comparison of models, global fit indices are essentially for comparing a theoretical model against an identified model (Loehlin, 1992).

Indices of comparative fit are based on opposite strategy. Rather than comparing against a model that provides a perfect fit to the data, indices of comparative fit are based on the selection of a known model that provides a poor fit to the data. The most popular baseline data are "null," or "independent," model. (LISREL printouts use the term "independent model" while most published literature uses "null model"). Generally, a null model is a model that shows no relationships between the variables composing the model in its path model (this issue is further examined in chapter 7). For assessing the comparative fit, three different models were postulated as shown earlier in Figures 6.3, 6.4 and 6.5 above. Findings from test statistics are shown earlier in Table 6.17.

6.5.2.1. Normed fit (NFI), Comparative Fit (CFI) and Relative Noncentrality (RNI) Indices

Several other fit indices provide guidance for interpreting test statistics in CFA analysis. The normed fit index (NFI), the comparative fit index (CFI) and the relative noncentrality index (RNI) are some of the comparative indices available from LISREL output. The criteria for examining them typically involve comparing a proposed model with a null model (Loehlin, 1992).

NFI is a measure that re-scales chi-square into a 0 (indicating no fit) to 1.00 (indicating perfect fit) range. An NFI value of 0.90 means that the model fits the data 90% better than the null model. However, NFI may underestimate the fit of the model in small samples. The CFI and RFI measures provide similar guidance for evaluating the fit of comparative models with a similar range of value expected for both of them.

6.5.3. Model Parsimony

Parsimony refers to the number of estimated coefficients required to achieve a specific level of fit. Other measures such as AGFI can indicate a parsimonious level within data. This is because parsimony fit testing essentially deals with the issue of trade off between the degree of freedom and the overall fit of the data (Jöreskog and

Sörbom, 1993). Several of the indices can be calculated by adjusting other indices of fit which assess model complexity. James, Mulaik and Brett (1982) proposed the Parsimonious Normed Fit Index (PNFI) for model parsimony. The model adjusts the NFI as the basis for determining model parsimony. This is calculated as:

$$(df\text{model} / df\text{indep}) \; X \; NFI$$

Another index is parsimonious-goodness-of-fit-index (PGFI). Both the PNFI and PGFI range from 0 to 1, with a higher value indicating a more parsimonious fit. Significantly, there is no indication of how high either index should be to indicate parsimonious fit. Instead, they are best used to compare two competing theoretical models. The calculation for each model fit is examined, and the one with the highest level of parsimonious fit is adopted (Kelloway, 1996). There are other indices such as Akaike Information Criteria (AIC) (Akaike, 1987) and Consistent Akaike Information Criterion (CAIC) (Bozdogan, 1987).

6.5.4. Step Five: Model Respecification

The role of model respecification is one of the most controversial aspects of all SEM techniques (See, for instance, Branick, 1995; William, 1995). The controversy over measurement model respecification stems from concern in the literature about the danger of empirically generated modifications where there is no theoretical justification for such changes (Hair, et al, 1998). As the objectives of CFA are: (a) to verify the proposed factor structure; and, (b) to explore whether significant modifications are needed, model respecification is important in CFA as well. Possible modifications to the proposed model may be indicated through the examination of the modification indices. In the case of this investigation, the modification indices suggest adding an error covariance as shown in Table 6.21.

The modification Indices suggest Adding an Error Covariance Between			
and	Decrease in chi-square	New Estimate	
CBimagf	CBimagd	22.7	0.24
Cbimaga	Cbimagd	22.7	0.33
CBimaga	CBimagf	8.1	-0.14

Table 6.21. LISREL Suggested Modification Indices

The LISREL output suggested modifications as shown in Table 6.21. However, upon further examination of the new estimate and the fit improvement that followed such modifications, there was no theoretical justification for the suggested modifications. The error variance between these variables suggests that these items have a similar level of error variance within them. Theoretically this indicates that these variables might be indicators of the same construct or share a similar source of error that may not have occurred by chance but rather is related.

Given the fact that theoretical supports for these variables' correlation are found in the literature (chapter three), it would not be appropriate to specify any modification. Therefore, any model respecification that is based only on the values of the modification indices may indicate that one is:

> ...capitalizing on the uniqueness of these particular data, and the result will most probably be an atheoretical, but statistically significant, model that has little generalizability and limited use in testing causal relationships (Hair, et al, 1998, p.625)

In a study with cross-sectional data, the error terms should be un-correlated from one indicator to another. Where error terms for two indicators correlate, this usually means that the indicators measure something other than, or something in addition to, the construct that such indicators are meant to measure (Kelloway, 1998). Furthermore, the model is clearly not designed to assess brand image but consumer brand equity (see for instance Schumacker, 1996, for further discussion). This process was also applied to model 2, which was not re-specified, but for a different reason –

namely, that it is a null model for comparative and hypotheses testing at the later stage (chapter 7). However, since one is engaging in model generation (Jöreskog, 1993) rather than confirmation of a single model, it is possible for the measurement model confirmed here to be modified in light of the structural relationship that may come to light following SEM application (chapter 7).

6.5.5. Confirming Measurement Model for Consumer Brand Equity

Following the statistical tests and analysis explained above, the next stage in the investigation was the evaluation of a confirmatory model for CBE. Initial exploratory factor analysis uncovered a three factors structure of consumer brand equity. These three dimensions of consumer brand equity were modelled as three correlated factors. This corresponds to a four-item brand image, four-item brand relevance (consisting of brand strength and brand insistence) factor and two-item brand history factors.

A further examination of inferences drawn from the analysis of LISREL CFA outputs shows that model 1 fits the data more than model 2, based upon the fit indices shown in Table 6.22 overleaf. Therefore, the measurement model represented in Figure 6.3 above is regarded as the model that fits the data adequately. This will be subjected to further analysis in chapter seven. Hence, the model depicted in Figure 6.3 is the confirmed measurement for CBE. This measurement model will then be subjected to the SEM process in chapter 7 to analyse the temporal order of its components' constructs in relation to the structure of CBE.

Factors	Brand Image	Brand Relevance	Brand History
Items			
Bimagb	.89(13.18		
Bimagd	.74(10.14)		
Bimagf	.64(8.43)		
Bimaga	.80(11.36		
Binste		.66(7.92)	
Binstd		.63(7.51)	
Bstrea		.72(8.80)	
Bstreb		.57(6.76)	
Histoc			.43(4.33)
Histob			.94(6.39)
Composite Reliability	.794	.688	.744
Variance Extracted	.794	.688	.747
GFI	0.91		
AGFI	0.85		
NFI	0.87		
RMR	0.056		
RMSEA	0.091		

Table 6.22 Results of the CFA Analyses for Consumer Brand Equity Dimensions

6.6. CONCLUDING REMARKS

This chapter focused on the development of summated rating scales to measure consumer perceived value, brand image, and brand history as valid and reliable measuring instruments for consumer brand equity (CBE). Section 6.0 presented an introduction to the whole chapter as well as an outline of established operational procedures adopted for developing and validating a measurement instrument for BE. Section 6.1 elaborates on the specific procedures from the psychometric literature for assessing reliability, dimensionality and construct validity. The measure purification and construct clarification process was described in section 6.2, while the confirmatory analysis conducted for assessing the validity of the measures was presented in section 6.3. The resulting measurement model of CBE is subjected to structural analysis in Chapter 7.

CHAPTER SEVEN

A STRUCTURAL EQUATION MODEL OF CONSUMER BRAND EQUITY

7.0. ORGANISATION

This chapter presents the structural relationship between the constructs of research. The chapter is divided into eight sections. Section **7.1** is an overview of the structural equation model (SEM) adopted as the technique for testing the relationship between the antecedents and consequences of CBE. Section **7.2** explains the application of SEM and it also identifies the structural models implicit in the data. Section **7.3** explains the type of data used in the analysis, while **7.4** assesses the fit of competing CBE models to be tested. Section **7.5** presents the assessment of the structural model and **7.6** explains the respecification of the structural model of CBE. Section **7.7** tests the research hypothesis by comparing competing models of CBE. Section **7.8** presents the complete structural model of CBE and discusses its implication for CBE research. The chapter concludes in **7.9**.

7.1. INTRODUCTION

This chapter follows an established procedure in the literature for examining the structural relationships between independent and dependent constructs (See for instance Hoyle, 1993; Jaccard and Wan, 1996; Schumacker and Lomax, 1997). First, the chapter presents an overview of *Structural Equation Modelling* (forthwith referred to as SEM) in order to highlight the key considerations for its appropriateness as a technique of analysis for consumer brand equity. Second, the chapter assesses the structural relationships between various constructs confirmed in chapter six. We also identify the model that best

reflects the reality inherent in the empirical data. Through this, comparative models of CBE are assessed for their possible fits with the theoretically postulated model presented in chapter four. A structural model that best approximates the reality within the data is selected as the final model. Finally, specific hypotheses developed in chapter four were tested on the identified model.

7.2. STRUCTURAL EQUATION MODELLING: AN OVERVIEW

In common with other areas of the social sciences, marketing researchers have had to deal with complex real-life phenomena. Examining the relationship between theoretical constructs commonly found in marketing (such as brand loyalty, customer satisfaction, etc.) presents its own challenges in terms of construct definition, measurement, and the predictive ability of models built to measure them. In situations where a large amount of literature has accumulated on a topic, SEM is viewed as one of the most rigorous ways of testing a specified postulation about theoretical constructs (See for instance Bollen and Long, 1993, p.1; Loehlin, 1998).

CBE is inherently a 'fuzzy' construct that presents unique challenges to researchers in demarcating, measuring and clarifying the construct. SEM is particularly suited as a technique for modelling the construct because measurement errors are inherently specified within the formulation of SEM analysis. Secondly, as specific understandings of various aspects of the concept of brand equity in general accumulate, the focus of research attention shifts from simple factor identification to that of understanding the process that gives rise to the concept and its various manifestations. Furthermore, research orientation should also shift towards the assessment of the relationship between the underlying concepts and the consequences of CBE. The analysis presented in this chapter represents one of the earliest efforts designed to achieve this purpose.

SEM is a multivariate technique of analysis that provides a general framework for latent variable modelling. It is an extended true-score model that uses the maximum likelihood method of estimation - default in LISREL 8.30 estimation. In the maximum likelihood method, an estimate of all the parameters in a model is obtained simultaneously from the observed correlation or covariance matrix. This is in contrast to the limited information approach in which the parameter estimates for the structural equation are obtained at one time (Anderson and Gerbing, 1982, p.453). SEM combines elements of both multiple regression and factor analysis within its process. It enables the assessment of complex interrelated dependent relations among constructs. However, it also simultaneously incorporates the effects of measurement errors inherent within the relationship into its structural coefficients.

SEM's ability to consider and assess both structural and predicative questions is a unique strength that makes it appropriate for this investigation. Examining the latent variable models within SEM provides a powerful means of assessing the relationships among the latent constructs of brand relevance, history, image and CBE. SEM's ability to frame, examine and answer increasingly complex questions within data (Jaccard and Wan, 1996; Kelloway, 1998) represents a key reason for adopting the technique as a method for analysing the complex phenomena of consumer brand equity.

SEM is a comprehensive statistical approach for testing hypotheses about relations between observed and latent variables (Bentler, 1989; Hoyle, 1995, p.1). It is also a means of translating a theoretical model into an analytical model (see section 1.7). As noted by various authors (See for instance, Hair et al., 1998; Jöreskog, 1993, p. 294; Kelloway, 1998, p.4; Loehlin, 1998) the means of testing relationships available through SEM techniques are both more rigorous and more flexible than other comparable techniques (such as those based on multiple regression). Considering the fuzzy nature of CBE, SEM represents an appropriate technique where inherent errors reflecting the 'imperfect nature' of the construct are fully considered within the specification of the

technique. For this and other reasons highlighted above, SEM offers a distinctive advantage as a technique of analysis for this investigation.

A number of issues that one may consider as disadvantages of SEM were evaluated, with thorough and due consideration given to guide against and minimise the negative effect that they may have on the outcome of this particular research.

Contrary to earlier assumptions about the nature of the technique, SEM does not assess or "prove" causality (Breckler, 1990; Williams, 1995) in the real sense of its usage in the natural sciences. Rather, it is a technique that evaluates and tests the influences that one variable has on another within a fully specified model. This is because, while the fit of a model to the data may provide measurement and predictive validity, this in itself does not convey information about the validity of the underlying theory (Cronbach, 1951; Pedhazur and Schmelkin, 1991).

Another erroneous misapplication of SEM that is taken into full account in this investigation is the fact that many research efforts tend to sacrifice theoretical substance for a better statistical model fit. In urging research to take full account of several sources of misapplication of SEM, Werts Lin and Jöreskog (1974), cautioned that:

> ...it is relatively easy to find a structural model which fits the data quite closely...it is extremely difficult to demonstrate (a) that a model simulates reality, (b) that it provided better simulation than another model, (c) that the constructs defined in the model have greater explanatory power from the observed variables from which they are derived, and (d) that these constructs are in any sense useful in promoting better research (Werts Lin and Jöreskog, 1974, xii).

In order to guide against these shortcomings, full consideration was given to all the issues raised by Werts et al., (1974) as well as similar cautions and guidelines (See for instance, Schumacker and Lomax, 1997) in designing, applying and reporting the SEM analysis presented in this thesis.

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7.2.1. The Content of Structural Equation Model

In modelling the structure of CBE, two types of variables are under consideration. These are explanatory variables and predictive variables. A structural model then is a set of:

> ...theoretical propositions that link the exogenous variables to the endogenous variables and the endogenous variables to one another. Taken as a whole, the model explains both what relationships we expect to see in the data and what relationships we do not expect to emerge (Kelloway, 1998, p.9).

The structural model is a sub-model that specifies the relationships between independent and dependent latent variables. In this research, Figure 7.1 highlights the hypothesised structure of relationship between CBE constructs.
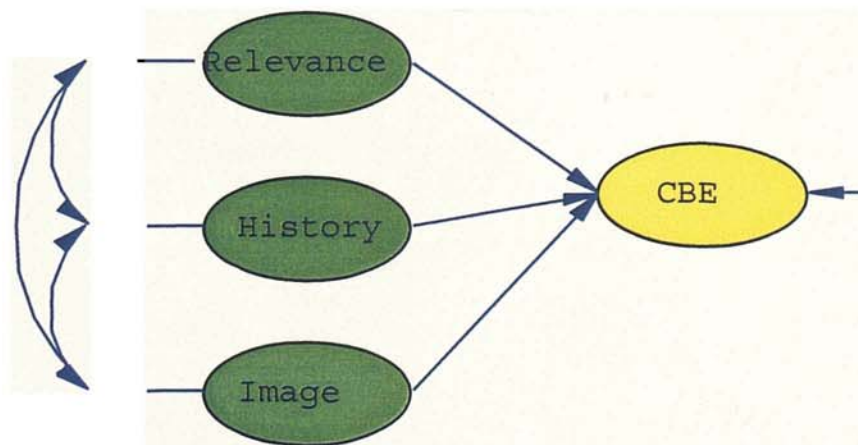
Figure 7.1 Structure of Relationship between Consumer Brand Equity Constructs

In emphasising that the process and application of SEM involves two conceptually distinct sub-models, James, Mulaik and Brett (1982) proposed a two step modelling approach that distinguished between the measurement model and the structural model contained within a fully specified model. The measurement model considers how each latent variable is operationalised by its corresponding manifest indicators. In this research it is conceptualised that brand relevance, image and history might be the underlying exogenous variables reflecting indicators such as brand strength and brand insistence, to which CBE is the endogenous latent variable. The measurement model also provided an assessment of convergent and discriminant validity of the observed indicators (Anderson and Gerbing, 1988). In general, structural equation modelling entails an analytical assessment of both the measurements and the structural model of a construct.

It is an essential assumption of SEM that the nature of the influence between independent and dependent variables is directional. It is also assumed that "x influences y" holds while its contrary does not hold. The statistical analysis involves measuring: (a) the changes or variability among sets of variables within a metric data by examining the average of the squared differences between each observation and the arithmetic mean; and (b) evaluating covariance relationships that exist between two variables. The covariance will be positive if the variables have a positive linear association, and negative if the converse is true.

There are three types of relations that can exist between observed variables (Hoyle, 1993, p.3). These are: association, direct effect and indirect effect. It is the assessment of direct effect relations that underpins the assumptions of linearity in SEM. In assessing the direct effect relationship, it is not expected that the structure in a model is exact and deterministic in nature. Rather, as is often the case, the independent constructs in the model are assumed to account for only a fraction of the variation and covariation in the dependent constructs. These assumptions take account of the probability that there may be many other variables that are associated with the dependent constructs that are not

included in the model. These un-represented variables are indicated in the model by a set of stochastic error terms.

7.2.2. Determining the Nature of Structural Relationships

In determining the nature of structural relationships between variables in this analysis, the choice of approaches was based on the three situational models of testing identified by Jöreskog (1993, p294). These are: strictly confirmatory (SC), alternative models (AM) building and model generating (MG).

- *Strictly confirmatory* (SM): In a strictly confirmatory situation, the researcher has formulated one single model and has obtained empirical data to test it. The model should be accepted or rejected.

- *Alternative Model* (AM): The researcher has specified several alternative models (or competing models) and, on the basis of an analysis of a single set of empirical data, one of the models should be selected.

- *Model Generating* (MG): Here, the researcher has specified a tentative initial model. If the initial model does not fit the given data, the model should be modified, tested, and tested again using the same data. Several models may be tested in this process. The goal may be to find a model that not only fits the data well from a statistical point of view, but also has the property that every parameter of the model can be given a substantively meaningful interpretation. Respecification of each model may be theory driven or data driven. Although a model may be tested in each round, the whole approach is model generating rather than model testing.

The model generating variety is recognised as the most common application situation while a strictly confirmatory situation is very rare because few researchers are content with the mere rejection of a model without suggesting an alternative. The model generating protocol enables researchers to make improvements to a model through modifications and re-specification of the structural model.

Having considered these specific instances, model generation was selected as the basis for determining the nature of the structural relationships inherent in the empirical data collected for this investigation.

7.3. THE APPLICATION OF STRUCTURAL EQUATION MODELLING

In applying SEM technique, there are several issues requiring prior consideration before embarking on the analysis itself. These include the selection and/or availability of a relevant method of estimation that is best suited to the data. One also has a choice of selecting between 'old style' LISREL or LISREL SIMPLIS as a means of analysis. These choices are important because they affect the method adopted for testing one's research hypotheses, and they also impact on the communication of the findings of the report.

7.3.1. LISREL Command Language and Output Communication

There are several new modelling software packages for statistical analysis in SEM. For instance, EQS6 (see Bentler 1989, 1992) and SEPATH (Steiger, 1995). LISREL is undoubtedly more popular than any other package on SEM—although the difficulties involved with the package are legendary. However, there is a new user-friendly version that provides an integral command through SIMPLIS (Jöreskog and Sörbom, 1993).

Independent variables (exogenous) which are represented by ksi (ξ), are the latent variables that X predicts. Dependent variables (endogenous) are represented by eta (η). While X is the predictor or measure of independent variables, Y is the measure of dependent variables. The arrow between the constructs represents the structural paths that explain how the constructs are related to each other. The structural paths are the link between the exogenous and the endogenous variables. These paths are quantified in terms of coefficients value as the predicted amount of change in the dependent variable, given a

unit change in the independent variable, controlling for other variables by holding them as constant in the equation. Measurement errors, epsilon (ε) and delta (δ), and the residual term zeta (ζ), associated with the latent variable, are also indicated. The primary value of interest is the significance for beta and gamma that represents the estimate of the interaction effect in the equation.

LISREL 8.30 permits the interactive specification of values for all the elements within a model thereby eliminating the traditional need for matrix formulation. This is enabled through the input file written in SIMPLIS command language available in the later version of LISREL 8.30.

> A LISREL input is an input file written in the old LISREL command language...a SIMPLIS input is an input file written in the new command language (Jöreskog and Sörbom, 1993, p. ii)

The output is obtained in LISREL form even when the SIMPLIS language is used in the input file. The SIMPLIS language makes it simpler to specify models and to carry out the analysis and the substantive specification and interpretation remain the same as with the LISREL command language. The key advantage of using SIMPLIS language is that it shifts the focus away from:

> ...the technical questions of how to do it...to that on the more substantively interesting questions of what does it mean?" (Jöreskog and Sörbom, 1993, p. i)

Structural model composition and notation entails specific formulation of a matrix representing the constituents' estimation of variables for structural analysis. Although LISREL 8.30 provides an interactive approach that does not require matrix formulation, it is important to understand what these matrices are meant to convey. This understanding should enable one to specify values for each matrix, and the form of estimation needed for each matrix (Schumacker and Lomax, 1997).

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Since other statistical packages became readily available for SEM analysis, researchers are being urged to communicate output without Greek letters and matrix notations (See for instance, Bentler, 1993; Hoyle, 1993). This is because, while early versions of LISREL required the specification of matrices identified by Greek notations, the current version of LISREL and other packages such as EQS6 (Bentler, 1992) and SEPATH (Steiger, 1995) acknowledge that both Greek and matrices notations are not necessary for reporting SEM outputs.

In fact, several notable SEM researchers have made deliberate efforts to promote non-Greek and matrices notation in reporting SEM analysis (see, for instance, Bollen, 1993; Marsh and Grayson, 1993; Hu and Bentler, 1993; Mulaik and James, 1993). Hoyle, (1993, p.13) argued that as the SEM approach has permeated the mainstream of statistical methods in social, behavioural and marketing research, not using Greek and matrices devices is more consistent with notations used in other statistical models. This promotes consistency, meaningfulness of underlying inferential discussions, and familiarity.

The availability of SIMPLIS (Jöreskog and Sörbom, 1993) has increased the use of LISREL analysis. The absence of general notation within SIMPLIS seems to have enabled researchers to deal with SEM analysis using the package more effectively (Hayduk, 1996, p.xiv). It also facilitates the reporting of analysis without notations systems, algebra and Greek notations. The *"absence of notation system means that there is no convenient way for SIMPLIS users to represent standard segment models"* (Hayduk, 1996, p.xiv).

7.3.2. Structural Model Specification: Structure of Consumer Brand Equity

Developing and analysing the structural path for CBE involves four distinctive stages. First, competing models are developed from theory and the findings detailed in chapter six. Secondly, the models are explained and expressed in structural terms. Third, an analysis of the two models involves an assessment and determination of how well the

models fit the data. Fourth, the structural model is assessed to investigate the consequences of CBE in terms of consumer perception of brand value.

SEM begins with the specification of the model to be estimated. Model specification refers to the initial conceptual model that a researcher formulates prior to estimation (Bollen and Long, 1993, p.2). Figure 7.2 depicts the hypothesised structural model specified for testing.

In the model generating approach, alternative models are also constructed. This is part of the generative process of identifying a model that offers the best fit to the available data. Models are formulated on the basis of one's own theory, the evidence, and/or past research in the area of investigation. This is central to the process of analysis. Indeed Hoyle (1993) contends that no analysis can take place until the researcher has specified a theoretical model of the relations among the variables to be analysed. The relationship between the dimensions of consumer brand equity was proposed in chapter four as composing of three dimensions. These are brand relevance, brand history and brand image.
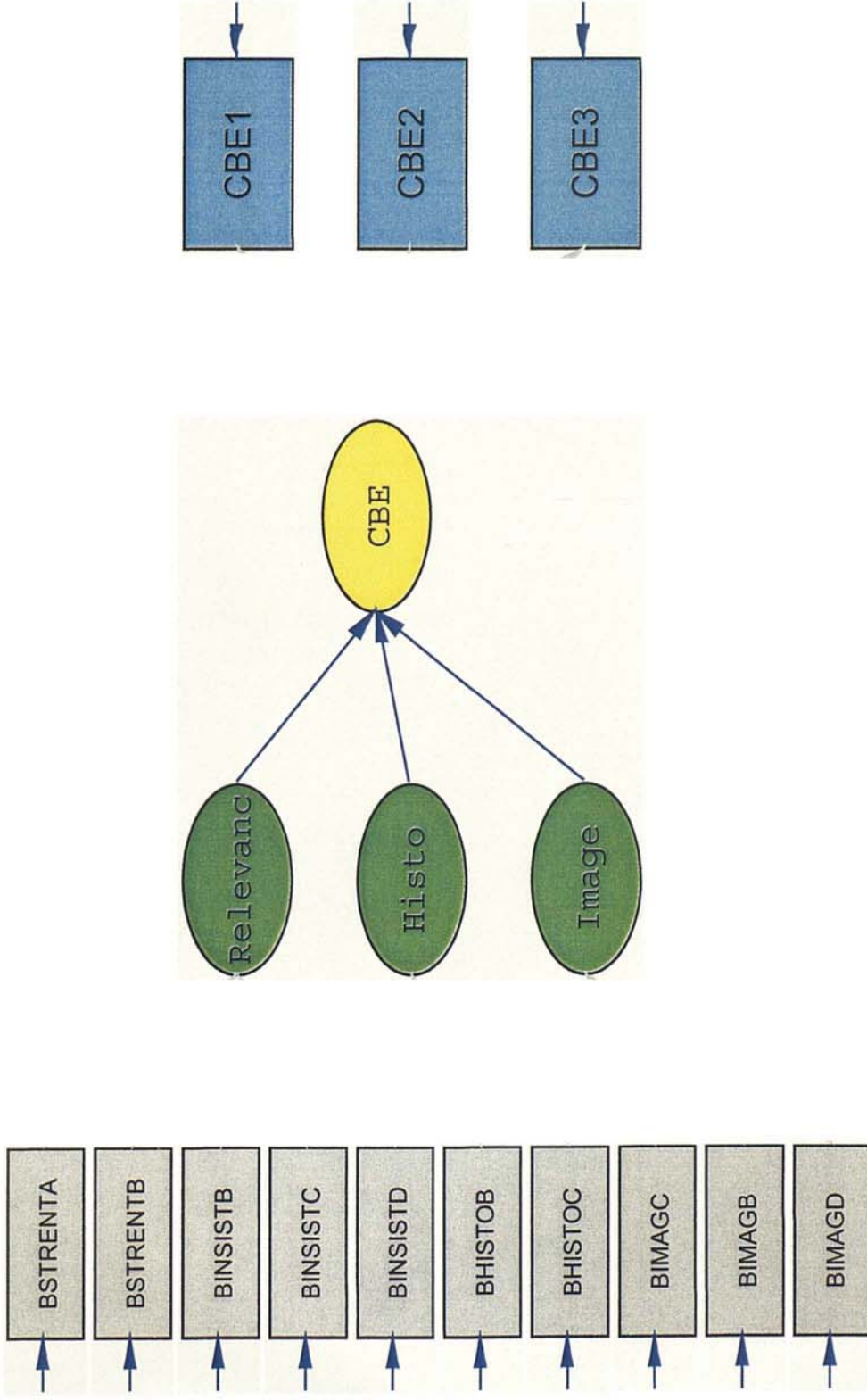
Figure 7.2. Full Structural Model of Consumer Brand Equity

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7.3.3. Structural Model Identification

Model specification involves formulating a statement about a set of parameters. To be strictly testable, the structural equation part of the model should be over-identified. Therefore, a fundamental consideration in specifying models for SEM is concern for model identification. Model identification deals with whether unique values can be found that represent an appropriate solution for the parameters to be estimated in the theoretical model (Bollen, 1989). Hence, structural model identification deals with the appropriateness of the theoretical specifications in providing a solution. A model can assume three different levels of identification. It can be: (i) *just identified*, (ii) *under identified*, or (iii) *over identified*. The ability of a model to do this also provides an evaluation of nomological validity.

When the number of unknown equations exceeds that of the known ones, the model is said to be under-identified, resulting in a situation where there is no unique solution within a data. However, when the number of equations exceeds the number of unknowns, the model is over-identified. In a model generating situation, the ideal situation is to have an over-identified model. This means there are a number of unique solutions, and the task is then to find the solution that provides the best fit to the data (Bollen, 1989).

Two different models were compared for this investigation as a means of finding models with over-identified parameters. Following Long (1983) model over-identification was achieved by comparing three different models, with different restrictions placed on the model parameters estimation. Restriction is placed on one model by comparing models with different parameters fixed at 0. This enabled the comparison of the parameter estimation for each of the two structural models depicted in figures 7.2 earlier and in Figure 7.3 below. These two models were compared for possible parameter identification.

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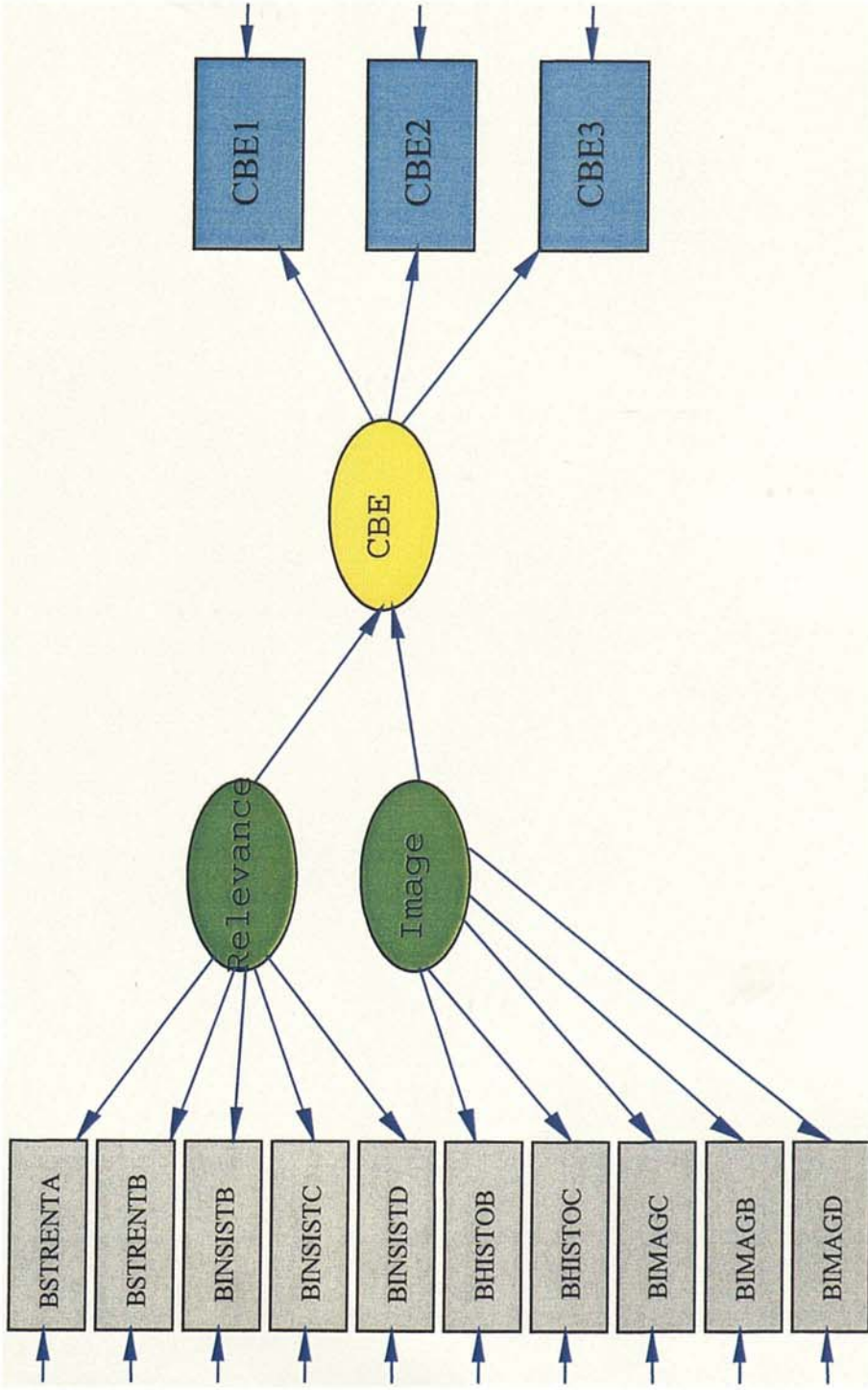
Figure 7.3. Structure of Competing Model2

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7.3.4. Full Structural and Measurement Models

Structural equation modelling distinguishes between measurement and structural models. In many instances, measurement and structural models are separately estimated. When measurement and structural models are separately analysed, the distinctive role that each plays in the overall path model is brought out more clearly. As Loehlin (2000) pointed out:

> One might maintain the same structural model of relationships among the latent variables but change the measurement model by using different tests or measurements to index the latent variables. Alternatively, one could keep the same measures but change the structural model by making different assumptions about the relationships among the latent variables (Loehlin, 2000, p.91)

One could, therefore, alter either the measurement or structural model without changing either the theoretical or methodological implications for a given data. This is the situation in this investigation. The measurement model was changed by using different tests to index the latent variables, while keeping the underlying theoretical assumptions about the relationships among the latent variables. This dual approach to the measurement (confirmatory model) and structural model (SEM) for predictive tests enables one to 'truly' say that full consideration is given to the theoretical postulations as well as the reality inherent in the data. This approach also guides against the widely used post-hoc respecification (Diamantopoulos and Siguaw, 2000).

7.3.5. Choice of Estimator: A Maximum Likelihood Approach to Model Estimation

Structural equation modelling involves the estimation of the relationship between dependent variables and independent variables based on specified parameters. Selection of estimation techniques is often determined by the distributional properties of the variables being analysed. Selecting a particular method of estimation involves several operational procedures systematically designed to take account of various issues in the analysis. Bagozzi and Heatherton (1994) suggested three key operations to undertake

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within the estimation procedures: the choice of estimators, the choice of data type and sample size requirements.

LISREL solves the need for model parameters by a process of iterative estimation. This estimation calculates the implied covariance matrix that would result from a set of model parameters. The process of interactive estimation continues until some fitting criterion has been achieved (Kelloway, 1998). There are four fitting criteria popular in the literature (Loehlin, 1998; Tanaka, 1993). These are: ordinary least square (OLS); generalised least square (GLS); maximum likelihood (ML); and, weighted least square (WLS). Each criterion attempts to minimise the differences between implied and observed covariance matrices. The goal of the iterative estimation procedure used by LISREL is to minimise the fitting function specified by the user. Maximum likelihood estimation is adopted for this research.

The maximum likelihood approach is a full information technique in which all parameters are estimated simultaneously. Maximum likelihood estimators are known to be consistent and asymptotically efficient in large samples (Bollen, 1989; Kelloway, 1997). However, Kelloway (1997) opined that the popularity of ML as a choice of estimator is more likely to be based on its ability to assess the minimum-fitting criterion of a model distributed as χ^2. Although in an instance where there is a large sample size ($\pi > 200$) and one can show (or is willing to assume) that the observed variables are multivariate normal, an assumption of χ^2 test is reasonable. In other circumstances this may not be appropriate. This is because the χ^2 test is known to be influenced by sample size. This may render its use for the assessment of model fit vulnerable to wide variation across measures.

Testing the structural model involves estimating path coefficients for each of the proposed relationships. Prior pre-processing was undertaken using PRELIS 8.30 to compute the appropriate matrix for input into the LISREL program (version 8.30).

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PRESLIS analysis indicated that, "departures from multivariate normality were not too severe" (Diamantopoulos and Siguaw, 2000, p.143). Missing data were also dealt with through PRELIS. This enables one to opt for the maximum likelihood approach to estimation.

7.4. CHOICE OF DATA TYPE: CORRELATION AND COVARIANCE MATRICES

The choice of data matrix used for computations in structural equation modelling is variance-covariance matrix. There is also the choice of using correlation matrix as the input. However, where correlation matrix is used, the software defaults to variance-covariance matrix. A variance-covariance matrix is made up of variance terms on the diagonal and covariance terms on the off diagonal. In general it is recommended that a variance-covariance matrix should be used in structural equation modelling (Jöreskog, 1993). A key assumption in using variance-covariance is that the sample covariance matrix must be definite or non-singular. Furthermore, the covariance matrix constructed by the model must also be positive definite as well as the associated covariance matrices of parameters and equivalent errors (See for instance Schumacker and Lomax, 1996).

In using variance-covariance matrix for this investigation, a major outcome from LISREL is that of *non-positive-definite* (NPD) assessment of the matrix contained in the empirical data in this investigation. The process of dealing with this anomaly is further explained below.

7.4.1. Non-Positive Definite Covariance Data

There are different criteria used to describe how closely the correlation or covariance matrix implied by a particular set of trivial values conforms to the observed data (Loehlin, 2000; Schumacker and Lomax, 1996). An assumption of using any of these

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criteria is that a given set of data is non-singular or positive definite. In statistical terms, a covariance matrix is positive definite if all its eigenvalues are greater than zero. Other instances may arise when either the pair-wise deletion method is used for handling missing data or there is a linear dependency among the observed variables (Schumacker and Lomax, 1996, p. 26).

A pairwise deletion may result in a covariance matrix that differs from the one generated by respondents with complete responses. If the source of non-positive identification is based on pairwise deletion error, the solutions are: (a) to use one of the procedures for dealing with missing data; or (b) to use a smoothing procedure. In LISREL 8.30, smoothing involves altering the sample covariance matrix using the ridge option in which the constant is determined by the researcher using command OU.

The second possible reason for the sample covariance matrix being non-positive definite (NPD) could be the existence of collinearity or linear dependency among the observed variables. Collinearity is defined as the situation where an independent variable is a liner combination of some other observed variables (Hair et al, 1998, p.143). A sample size that is less than the number of observed variables also represents an important source of non-positive definite in a data set. Other sources are: existence of outlier, use of bad starting value estimation of covariance matrices for the parameters and measurement errors.

In tracing the sources of NPD within the data reported here, a screening procedure within PRELIS™ 2 (Jöreskog and Sörbom, 1996) was used to identify possible sources of non-positive definite. The data was scanned for missing data and outliers. In the absence of any specific missing data and outliers, the pairwise deletion method of dealing with missing data through SPSS was identified as a possible source.

The pairwise deletion method of dealing with missing data may have resulted in a covariance matrix that differed from the one generated by those individuals with

complete responses (Jöreskog and Sörbom, 1996 p.153; Schumacker and Lomax, 1996). There are two possible solutions for dealing with this situation: using another form of estimations procedure such as WLS (weighted least square); or, a smoothing procedure using the ridge estimation. Ridge estimation was used in dealing with NPD. In ridge estimation, a constant times the diagonal values in a sample matrix is added. The constant is determined by the researcher using the *OU-RC = RO* command.

7.5. EVALUATING THE FIT OF COMPETING MODELS

Testing model fit involves the interpretation of how well the hypothesised model fits the model implied and identified in the data. The process is that of choosing between numerous fit indices that subjectively indicate whether the data fits competing theoretical models (Jöreskog and Sörbom, 1993; Schumacker and Lomax, 1996). Model fit evaluation, therefore, involves parameter estimation, fit indices assessment and hypotheses testing. Gerbing and Anderson (1992, p.134), describe the ideal properties of such indices as those with ability to

- indicate degree of fit along a continuum bounded by values such as 0 and 1 where 0 represents a lack of fit and 1 reflects perfect fit;
- be independent of sample size, and
- have known distributional characteristics to assist interpretation and allow the construction of a confidence interval.

7.5.1. Model Fit Assessment

There are at least two main conventions on the assessment of model fits that are apparent in the literature (Bentler, 1993; Tanaka, 1993): the assessment of the *absolute* fit of the model, and the assessment of the *comparative* fit. Comparative fit can further be divided into comparative and parsimonious fit. However, the issue of various dimensions along

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which fit indices can vary dictates that one has to engage in a certain level of heuristics in gauging and assessing the acceptability of fit indices.

7.5.1.1. Absolute Fit

The chi squares

The difference between the competing models is 107, with differences in degrees of freedom of 3. The chi-squared statistic is significant at p<0.0001 level, indicating that model 1 is significantly a better fit to the data than model 2. Tanaka (1993) identified six dimensions for considering the fit indices, of which the four that are relevant for this investigation are considered and highlighted in Table 7.1. As shown in the table, the fit indices converge in support of Model 1 hypothesising three oblique factors. Comparison with the model with two oblique factors shows that the model with three factors provides a good fit to the data [χ^2 difference (3) =107, $p<$ .01]. Furthermore, a cursory inspection of parsimonious fit (PNFI and PGFI) suggested that the three-factor model provides the most parsimonious fit to the data.

Model	Number of factors	χ^2	df	GFI	AGFI	RMR	RMSEA	NFI	PNFI	PGFI
1	3-factors	373	68	.87	.83	.86	.7	.82	.71	.65
2	2-factors	480.39	65	.76	.70	.74	.10	.76	.63	.54

Table 7.1 Fit Indices for Comparative Model 1 and Model 2

However, the most that one can conclude from this result is that the hypothesised three-factor model provides a better fit than the plausible rival specifications. The weakness of the p value associated with χ^2 statistic that may not be a viable guide to assessing fit statistics is well documented in the literature. This is because its value tends to be influenced by sample size (Anderson and Gerbing, 1992; Tanaka, 1993). Hence, one can conclude that model 1 fit is acceptable for an exploratory research of this nature.

7.5.1.2.   Comparative Fit Indices

SEM analysis recognises that it is very often the case that there are alternative models out there that also fit the data one is examining (Loehlin, p.67). This underpins the consideration of alternatives to the "baseline" model and comparing between the fit of theoretically derived models and the baseline model. Indices of comparative fit are based on the examination of fitting indices between a plausible model, a non-plausible model and a theoretically postulated model. Structural depictions of the two models of CBE assessed (plausible model 2 and theoretically postulated model 1) are presented earlier in Figures 7.3 and Figure 7.2 respectively.

7.5.1.3.   Model Parsimony

Model parsimony was assessed by evaluating the fit of the model versus the number of estimated coefficients as well as the degree of freedom of the competing models. Adjusted Goodness of Fit Index (AGFI) lends support to the conclusions reached upon the assessment of absolute fit of the two competing models. Since an over-identified model is compared to a restricted model, the other indices such as PFI (parsimonious fit index) give credence to model I as providing the best fit to the empirical data in this investigation.

No one index serves as a definite criterion for testing a hypothesised structural model. Schumacker and Lomax (1996) explain that this should not be surprising for several reasons. First, an ideal fit index would be one that is independent of sample size and scale

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invariant. None of the fit indices can be said to possess these characteristics. However, RMSEA can be said to adequately match because other fit indexes are affected by sample size in one way or the other. Secondly, an ideal fit should accurately reflect differences between other fits and impose a penalty for inclusion of additional parameters (Marsh, Balla and Hau, 1996). Thirdly, an ideal fit must support the choice of a true model when it is known (McDonald and Marsh, 1990). Given the nature of fits determination in SEM, the suggestion in the literature is that one needs to assess a variety of fits for their different properties in order to come to an overall decision on which model to select as a true representation of a data. An assessment of the structural relationship with the models was examined prior to making this decision.

7.6. ASSESSMENT OF STRUCTURAL MODEL

Following the assessment of overall model fit for both models presented above, the constructs within the model structure were examined separately by analysing the indicator loading for statistical significance, reliability and variance extracted. To determine the power of a test in model fitting requires the assessment of three different issues:

- Assessment of the sign of the parameters representing the paths between the latent variables indicating the direction of the hypothesised relationships.

- The magnitudes of the estimated parameters providing information on the strength of the hypothesised relationships

- The squared multiple correlation (R^2) for the structural equations indicating the amount of variance in each endogenous latent variable that is accounted for by the independent latent variables that are expected to impact upon it. The greater the squared multiple correlation, the greater the joint explanatory power of the hypothesised antecedents. (Diamantopoulos and Siguaw, 2000, p.92).

The assessment for all the exogenous and endogenous variables is presented in Table 7.2. Based on the findings exhibited in the table, a conclusion was reached on the

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acceptability of model 1 as the most probable representation of reality. This is exhibited by the data collected for this investigation.

Model 1	Model 2
Chi-square = 373	Chi-square = 480
Degrees of freedom = 68	Degrees of freedom 65
GFI = .87 AGFI =.83 RMSEA =.0.07	GFI =76 AGFI =.70 RMSEA 0.11
Total coefficient of Determination for Structural Equation = .741	Total coefficient of Determination for Structural Equation = .625
T – Values are all significant	T – Values are all significant

Table 7.2 Assessments of Competing Structural Models

Statistical consideration for structural determination involved the assessment of t values parameter estimation and total coefficient explained by the data. The t-values are used to determine whether a particular parameter is significantly different from zero in the population. This level is determined with the consideration that t-values between -1.96 and 1.96 indicate that the corresponding parameter is not significantly different from zero (Diamantopoulos and Siguaw, 2000) at the 5% significance level. That is, values above 1.96 are significant at the $p< 0.5$ level.

The issue then is to assess whether parameters predicted to be nonzero in the structural equation models are in fact significantly different from zero. However, it is important to note that consideration of the individual parameters composing the model is important for assessing the accuracy of the model. The parameter tests are not, of themselves, tests of model fit. However, determining its value contributes to the overall evaluation of the structure of consumer brand equity.

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The result of this analysis indicates that all the estimated parameters for both models are statistically significant at the 0.5 level or better. As a measure of the overall structural equation, a total coefficient of determination is calculated. The result is exhibited in Table 7.2 above. While one cannot perform a test of significance with coefficient determination, it provides a measure of fit for each structural equation under consideration. The total coefficient determination is a measure of the total variance of all endogenous variables in the full model that is accounted for by the total set of variables in a model.

In model 1, .741 of all the variables is accounted for by the combination of the exogenous and the endogenous variables in the full structural model specified. This is comparable to model two where the figure is considerably lower with R^2 value of .625. This means that only 62.5 percent of variance in model 2 is explained. The combined effects of the three factors in model 1 achieve a R^2 value of 74.1 percent of the variance in consumer value perception among competing brands. Thus a significant 'causal' relationship has been identified in both models, but model 1 provides greater explanatory power than model 2.

7.7. Structural Model Respecification

In examining the fit of the two models, key bases for fit acceptability were whether the model fits better than rival specifications, and whether the model provides a good absolute fit to the data. The fit indices for the two models were compared and presented earlier in Table 7.1. (See section 7.5.1.1). This follows the assessment of model fit presented earlier (section7.5). In order to improve model parsimony or the fit of a model one could either delete a non-significant path in a model (this is known as "theory trimming" process (Pedhazur, 1982)); or, add a path to the model on the basis of the empirical result.

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In this investigation, a path was added between brand history and brand image. This was then re-run. An evaluation of the model parameters suggested that the path shared by brand image and brand history did not provide a good fit to the data. Therefore, model 1 is accepted as an adequate reflection of the data collected. The fit indices for respecified model of CBE (Model 1) are presented in Table 7.3.

Model	Number of factors	χ^2	df	GFI	AGFI	RMR	RMSEA	NFI	PNFI	PGFI
1	3-factors	373	68	.87	.83	.86	.7	.82	.71	.65
CBE Model	3-factors (Re-specified)	371	67	.87	.82	.89	.10	.82	.70	.64

Table 7.3. Fit Indices for Respecified Model 1

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7.8. RESEARCH OUTCOME: SUMMARY AND IMPLICATION

This section discusses the statistical evidence, the inference from which specific structural justification for our research hypotheses are drawn. The issues that we deal with in this investigation encompass two analytic procedures. The first is the qualitative stage explaining and developing specific propositions that explain our research hypotheses. In chapter four, we hypothesised the relationships between latent variables – *independent and dependent* – in our investigation on the basis of substantive theory and qualitative research. This, as recommended in the literature (See for instance Hair, et al, 1998, p.589; Pedhazur and Schmelkin, 1991; Schumacker and Lomax, 1996, p.180), laid the conceptual foundation for our empirical work.

The second stage is the determination of the degree to which the explanation that we set out in chapter 4 would support the research hypotheses whose "truth" value we are interested in establishing. The empirical phase of our research set out to understand a particular problem: that of understanding the nature of the relation of evidential support for our hypotheses. In dealing with this second part of our investigation, the key issue entails that of determining and confirming the nature and relation of evidential support for the research hypotheses that we had presented earlier in chapter 4. This is done by examining the value of the statistical correlation obtained from the analysis of our empirical investigation.

7.8.1. Complete Measurement and Structural Model

A complete structural equation model that incorporates both the measurement and structural model is presented in Figure 7.4. The model reflects ten observed independent variables. These variables are the five items of brand *Relevance*, two of brand *History* and three of brand *Image*. The three *latent independent* variables are that of brand *Relevance*, *History* and *Image*. The three observed dependent variables are those that define a single *latent dependent* variable of *Consumer Brand Equity*.

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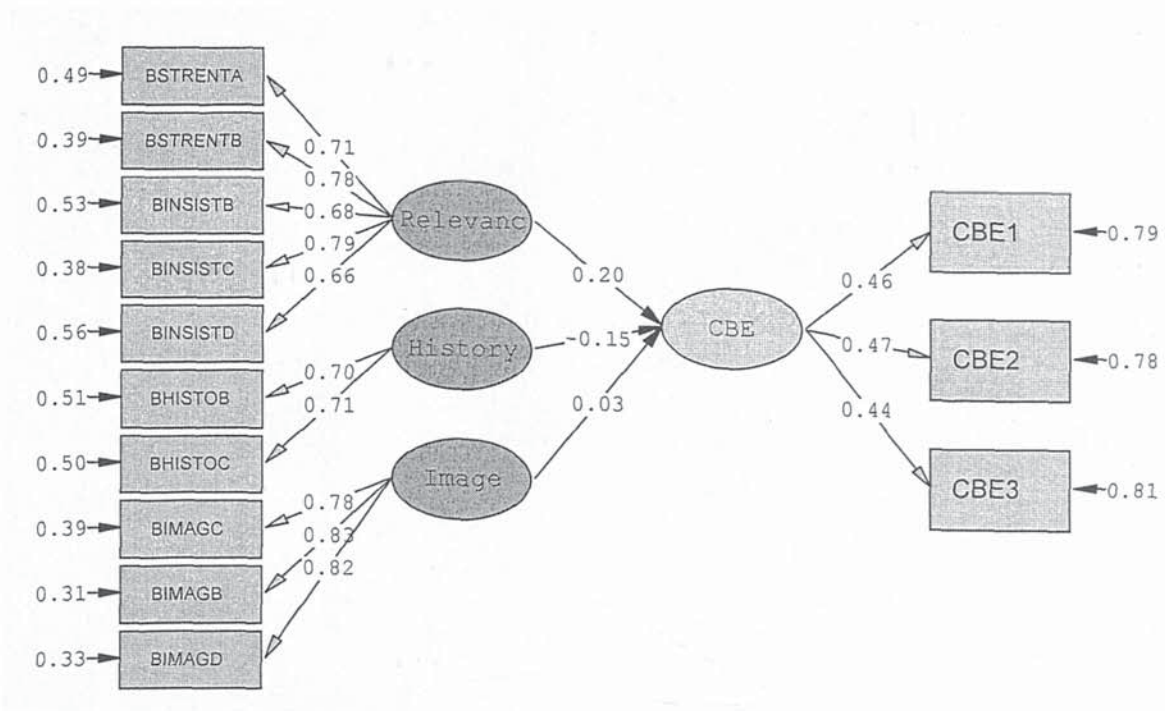
Figure 7.4. Complete Measurement and Structural Model

In examining the statistics from our empirical investigation the focus is on the evaluation of the relationship to provide specific justifications and evidential support or otherwise for our research hypotheses. Based on the statistical relationships established from the correlation of three latent independent factors with one latent dependent factor we have been able to establish structural relationship among our research factors as reflected in figure 7.4.

Statistical relationships according to Hair et al, (1998) are based:

> "...on the correlation of one or more independent variables with the dependent variables. Measures of associations, typically correlations, represent the degree of relations because there is more than one value of the dependent variable for each value of the independent variable (Hair et al, p.147).

Although no limit has been set that defines what are considered as high correlations, value exceeding .90 should always be examined, because it may indicate that the constructs do not discriminate between each other. As indicated in figure 7.7, the correlation values for the 10 observed variables reflecting the 3 *latent independent variables* ranges between .66 and .83. Two observed independent variables have correlation values of .66 and .68 with the highest value being .83. The correlation values for the 3 observed variables for the latent dependent variable ranges between .79 and .81

In a situation where some level of multicolinearity can be expected, correlation of between .80 and .85 need not be regarded as high enough to warrant any problem. Furthermore scholars such as Pedhazur and Schmelkin (1991) and Schumacker and Lomax (1996) cautioned that one must be aware of correlation among constructs estimates particularly in a multivariate analysis. This is because the underlying assumption in a SEM analysis is that a *latent dependent* variable is predicted by a different but related number of *latent independent* variables in this research. We hypothesise that one should expect some level of multicolinearity among the 3 latent independent variables - brand *Relevance, History* and *Image-* that predict *Consumer*

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Brand Equity. One should therefore exercise caution in interpreting the correlations that seem higher than expected.

A more reliable measure for assessing the acceptability individual indicators is the overall evaluation and substantive theory (Bagozzi, 1994). A commonly used threshold value for this is .70 although values below .70 have been deemed acceptable given the exploratory nature of our investigation (Kerlinger and Lee 2000).

The structure presented in Figure 7.7 is a simple 'causal' model. The model shows 10 X_i indicators or observed questionnaire items that influence the 3 latent independent variables and 3 indicators that influence the latent dependent variable. In our model the indicators determine the latent independent factors, which in turn determine the latent dependent construct. An increase in any of the items independently could result in an increase in the latent construct. In this 'causal' model, one cannot know the correlation between X_1 and X_2 nor any pair of the Xs based on the 'causal' model. This means that individual items representing an underlying dimension can have positive, negative or no correlation at all (Hair et al, 1998).

As shown in Figure 7.4 there is a negative correlation between brand *History* and *CBE* constructs. In a situation where there is negative correlation, this indicates reverse relationships between the two constructs. A reverse relationship between two variables implies that as one variable grows larger, the other variable grows smaller. This reverse relationship indicates that when a brand's *history* is a potent force it may become an overriding factor in consumers' evaluation rather than the overall aggregation of other factors.

Where brand's historical origin is closer to the pioneering stage of its product sector, the consumer tends to evaluate it on its historical association. A brand that also retains its distinctive link with its historical heritage is also likely to be evaluated on such a basis. This may suggest that pioneering advantage is at work particularly where the dominant

brand determines the nature of attributes that are acceptable as standard for evaluating other brands in its category (See for instance Carpenter, et al 1997). Agree and Dubitsky, 1996 also asserts that brands that have managed to achieve and maintain high levels of distinctiveness over time are able to differentiate themselves better in their category. Such brands are also able to annex their historical associations as the underlying basis for maintaining their relevancy as consumer norms and values change (Batra, Myers and Aaker, 1996).

When brand CBE is the overall basis for consumer brand evaluation, this does not mean that historical associations are not considered. However, we maintain in this research that various other factors are taken into consideration thereby reducing the pre-eminence of history as the sole basis for consumer decision-making.

7.8.2. Implication of CBE Scale for Brand Equity Research

In concluding this section of our investigation, one can identify the significant outcome of this research as the development of a consumer brand equity scale that has been validated and found to be reliable. This is significant for two reasons. First, while considerable empirical research on the construct of customer brand equity exists in the literature, a variety of conceptually distinctive definitions have been used. This results in varied methodological approaches to the study of brand equity (see section 3.1 for a sample of selected previous studies), many of which are unvalidated. For instance, Aaker, 1991, 1996; Biel, 1993; Feldwick, 1996; all proposed CBE scales that were unvalidated.

Secondly, a number of scales that are validated (See for instance Keller, 1993; Park and Srinivasan 1994; Swait et al, 1993) including a more recent scale developed by Vázquez, del Río and Iglesias (2002) were based on functional attributes of a brand. These scales, apart from Keller (1993), were developed based on different functional attributes and dimensions. Vázquez et al (2002) based their work on functional attributes such as

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product functional utility, product symbolic utility, brand name functional utility, and *brand name symbolic utility*.

This traditional reliance on *utilitarian* and functional aspects of a brand as the basis for customer brand evaluation has been shown to be less effective as representative of what customers actually consider in their brand evaluation. The reality is that, in highly developed Western Economies brands embody a system of meanings beyond functional or utilitarian uses (See for instance, Farquhar et al, 1997; Glazer, et al, 1997; *The Economist*, 2001). In the words of Gabriel and Land (1995) we:

> Want and buy things not because of what things can do for us, but because of what things mean to us and what they say about us (Gabriel and Lang, 1995, p.50)

Furthermore, various conceptual works now offer compelling explanation to buttress this empirical reality that product and brand utility are less important determinants of customer evaluation of a brand (See for instance Boisot, 2001; Glazer, 2001; Kapferer, 2001; Lindstrom, 2002). From the above one can conclude that no one scale has been universally accepted or validly tested to measure customer brand equity, particularly in the light of market reality in which non-functional, rather than functional aspects of the brand determine its success in the market place. However, our research created a scale to capture the consumer brand equity, validly and reliably, in the light of the market reality.

7.9. CONCLUDING REMARKS

This chapter assessed the structural relationships among various constructs confirmed in chapter six. I also identified the model that best reflects the reality inherent in the empirical data. Through this, comparative models of CBE were assessed for their possible fits with the theoretically postulated model presented in chapter four. A structural model that best approximates the reality within the data was selected as the final model. This final model was tested. The null hypotheses that were developed were

also tested on the identified model. The next chapter will discuss the implication of our findings and the outcome of the inferences that can be drawn regarding the research hypotheses proposed in chapter four.

DISCUSSION

8.0.ORGANISATION

This chapter discusses the outcome of Consumer Brand Equity investigation. The chapter is divided into seven sections. Section **8.1** is a brief introduction providing an overview of the chapter content. In section 8.2 we offer an evaluation and comparison of the model developed in this thesis with those in the published literature. Section **8.3** discusses the structure of the uncovered dimensions of CBE and the nature of the three factor groupings of these dimensions. In **8.4** the chapter discusses hypotheses relating to antecedents to Consumer Brand Equity. In **8.5** the chapter evaluates the three research hypotheses relating to the consequences of CBE, based on the result of measurement and structural models presented in chapters six and seven respectively. Section **8.6** offers a general discussion on the consequences of CBE. The chapter concludes with a summary of the significant findings arising out of the hypotheses tests in section **8.7**.

8.1. INTRODUCTION

The goals of this chapter are three fold. Firstly, it discusses the dimensions of the brand equity uncovered in this research. Secondly, the chapter examines the findings of our investigation in light of those in the published literature upon which the current investigation is built. Thirdly, the chapter discusses the findings from the testing applied to the CBE hypotheses posited in chapter four. Since the main quantification techniques yielding the statistics used in testing the hypotheses were presented in chapters six and seven, limited methodological discussion is warranted in this chapter. Therefore the chapter presents the descriptive analysis relating to the statistical analysis presented earlier in the two preceding chapters. It also presents the outcome of the hypotheses testing conducted in this investigation and their significance particularly in relation to findings from other studies reported in the literature.

The theme of this discussion is that this investigation revealed that consumer behaviour towards brand is made up of many co-existing factors. Our thesis suggests that sometimes consumers behave as part of a group and at other time as unique individuals. As part of a group, they exhibit greater propensity to fit neatly into social and psychographics classifications (Mckenna, 1991, p.73). In an environment like this, building *Consumer Brand Equity* tends to be primarily image driven. Brand image, therefore, becomes an overriding basis for building consumer brand equity in the mass market, image driven era (Shook, 2003, p.48).

At other times, consumers can be iconoclastic by breaking loose from social restrictions. This is manifested in the reduction of people's concerns about gaining the approval of others through the purchase of certain brands with specific images (Solomon, 2002). In this, consumers are aided by the new economy with its emphasis on customisation, customerization and personalisation of offerings (Kotler, 2003).

An earlier indication of the success of individualisation of brand offerings is reflected in the successful campaign for which Sprite proclaimed, "Image is nothing. Obey your thirst." This represents the earlier signal for changes in consumer value. The new economy based on the Digital Revolution and the management of information enables consumers to make and break patterns and carefully built brand image that does not conform to their expectations of the brand. This is evident in many brands such as Marks and Spencer, Gap and Levi that have stumbled in recent years despite their carefully constructed brand image. All of these brands have resurrected themselves by adjusting their brands to fit with consumer expectations by building appropriate offerings that fit with consumer wants.

Rather than relying primarily on a carefully constructed brand image, brand built on the *Relevancy* of its offerings to consumers capitalised on the fundamental point of marketing in the new economy -adaptability, flexibility, and responsiveness. In this sense, *Brand Relevance* as a primary basis for building *Consumer Brand Equity* enables firms to be truly market driven by adapting to the changing needs and wants of the consumer in a timely way (see section 4.4.)

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8.2. CONSUMER BRAND EVALUATION

In published brand literature, functional or utility attributes are considered to be the primary elements determining consumer preferences and, invariably, the success of the brands (see section 3.5). The basic assumption of this approach is that brand loyalty may emerge because the consumer prefers a brand that simply outperforms all its competitors in a product category. Hence the prevalence of factors such as perceived quality (Aaker, 1991), brand added value (Riezebos, 1994) based on functional improvement, and utility based attributes (Park and Srinivasan, 1994) in brand equity research. While these works did not totally rely on functional attributes, they underlie a substantial part of their investigation. The assumptions that inform these earlier works were generally consistent with the nature of consumer behaviour and preference formation in the 1970's and 1980's that were quality driven eras. But major shifts have occurred in the market environment.

Clearly, the success of quality driven measures, particularly TQM, is that consumers expect consistently high quality from any offerings competing for their custom in the market place. Most particularly, Western Economies will no longer accept or tolerate average quality. Hence, any company who wants to compete successfully and be profitable has no choice but to have quality as the starting point in their campaign to gain consumer patronage (Kotler, 2003, p.84).

Perhaps the recent example of the ITV owned On Digital in the UK serves to illustrate this point. The company was able to build up a high level of subjective attributes communicating emotional attributes through its mascot 'Digital Monkey'. However, the success of its differentiating extrinsic attributes in attracting subscribers exposed underlying technical problems with its digital receptor. This ultimately led to customer attrition and contributed in major part to On Digital's eventual demise early in 2002.

Consequently, for a brand to succeed in a post TQM (Total Quality Management) era, functional quality becomes a basic ingredient. Quality on its own ceases to be a point of differentiation. In fact the saying that nothing kills a bad brand like good advertising epitomises the logic of this assumption. The idea is that if a brand cannot guarantee 100% quality, it is bound to fail in the end. However, a brand with 100% quality

cannot on its own succeed in a *competitive market without lasting reasons encoded in subjective attributes to endear it to consumers.* This is one of the primary consequences of the quality driven orientation of the 1980's and 1990's, when companies were totally focused on quality improvement.

If we define branding strategy as that of differentiating and making one's offering unique in the market place (see section 2.3), our findings suggest that it is imperative that brands' evaluation should move beyond quality oriented differentiation. In the light of advances in CAM (Computer Aided Manufacturing) process, a quality-oriented approach to brand building fosters brand-parity and strives for innovation.

Furthermore, in a hyper-competitive market with endless proliferation of brands across many sectors, it is difficult to attain a high level of *Consumer Brand Equity* based on functional ability of the brand. This is even more so as consumers have taken for granted that most well known brands have high quality.

This investigation showed that the effect of the subjective, extrinsic factors as suggested by Arnold, (1992) play a significant role in consumer evaluation of a brand (see chapter two). The role of extrinsic attributes is even more pronounced in a social consumption category such as boxed chocolate, perfume, cars etc. One may therefore express the view that the idea of the consumer as a rational decision maker may be limited in its application (see section 4.2). Undoubtedly it tells only part of the story by making consumers appear to be utilitarian in making brand purchase decisions (See for instance Levi, 1999). This study therefore presents a perspective on consumer behaviour that is concerned with their notion of self and readiness to express such self through symbolic consumption of items that appropriately reflect their ideal and unique selves.

8.2.1. Comparison with Other Models

The current investigation has similarities with specific brand models. Indeed the initial exposition on the nature of brand is based upon de Chermatony and Dall'Olmo Riley's (1998) exposition (see section 2.3). Their work clearly influenced the specific definition of brand offered in this study. The current study also shares several ideas

with Kapferer's (1992) by explaining that consumer brand evaluation depends on how consumers see themselves in relation to the value propositions that a brand is offering them. Our study goes further to say that the *relevancy* of such brand value propositions to consumers' notion of selves determines their evaluation of the brand's worth.

Other models such as Arnold (1992) and in particular Aaker (1991, 1996) and Keller (1993) also influenced our perspectives on the changing nature of factors that underlie consumer brand equity (see chapters two and three for extensive discussions of these studies). Keller's model defined customer brand equity in terms of the differential effect that knowledge of the brand has on the consumer response to the marketing of the brand. However, it is worth pointing out that Keller's original model was derived from an empirical research on brand extension in which knowledge of a parent brand is crucial to the acceptance of brand extension (See for instance, Aaker and Keller, 1990; Keller, 1993). This study emphasised that the brand *relevancy, history and image* are key influences on CBE.

The thesis inferred from our research findings is that yes, brand image is a crucial influence on CBE. In marketing, particularly in branding, perception is crucial, so brand image is undeniably important. But in a market where there is a proliferation of brands offering a differing array of desirable images, a successful brand requires more than a critically acclaimed image (Kapferer, 2001). With such a huge number of images to choose from, a brand needs to be relevant to the consumer and exceed their image of what is desirable. It needs to demonstrate the superiority of its appropriateness compared to its competitors offering other desirable images.

In conclusion our study, along with studies such as Agres and Dubitsky (1996), Arnold (1992) and Lemon, Rust and Zeithaml (2001) provides significant evidence that in a hyper-competitive information economy consumer preferences are primarily based on *Brand Relevance* and its appropriateness to their individual self. Furthermore, because consumers are well informed, discernible associations from various noteworthy events in the brand history have risen to the top of the agenda in terms of their significance to consumer brand evaluation.

However, the extent to which the dimensions of *Brand Relevancy, Brand History,* and *Brand Image* affect consumer evaluation of brand is not, as yet, universally applicable across product category. Its applicability in terms of market segment is more generalisable within the youth market, particularly those between the ages of 19-27. In terms of product market, it is more applicable in a product market with highly social and symbolic consumption.

8.3. DISCUSSION ON THE DIMENSIONS OF CONSUMER BRAND EQUITY

In this section we examine the dimensions of consumer brand equity uncovered during this investigation. Our data supports the explanation that *Brand Relevancy* has a more significant structural influence on consumer brand equity than both *Brand History* and *Brand Image.* However, upon testing the structural relationships between the three factors (see section 7.3) it is clear that respondents to our survey seem to affirm that the appropriateness of a brand's offering as reflected in its appropriateness for them, is more important in their consideration than the image of the brand. This is reflected in the standardised beta co-efficient for these dimensions as shown earlier in figure 7.4.

8.3.1. Factor 1- Brand Relevance

Brand relevance dimensions contained five internally consistent and highly correlated items. As discussed earlier (see section 4.5.1) *Brand Relevance* represents the extent to which the brand is appropriate for and compatible with the individual consumer's ideal of self. The square multiple correlations for the CBE items, representing the amount of variance explained by the individual items in the CBE factors is provided earlier (See chapter 7).

Consumers may consider the image of a particular brand as highly desirable. However, they may feel that purchasing another brand with a different image will fit better with the self that they want to portray at a particular time.

Consumers often use brands to reflect both their *real* and *ideal* selves; they buy brands with differing images to match these selves. Furthermore, ideal self is partly moulded

by influences from the external environment such as those depicted through celebrity endorsers, heroes, movie stars as well as those depicted in marketing communications. Hence brands seem to be purchased in the belief that they will help consumers in achieving self -goals as depicted in various marketing communications. This is reflected in the highly eclectic approach to brand purchase exhibited in the market place (Kotler, 2003).

This issue as discussed earlier (section 2.3.5) highlights consumers' feeling that the brands they choose to consume affect their 'value' as a person (Solomon 2001, p.131). A study by Goleman (1991) estimated that 72 percent of men and 85 percent of women in the US are unhappy with their appearance. These findings underlie the idea that consumers are unique rather than being a part of a mass to which the image of brand may determine their preference. This emphasis on unique self is becoming greater particularly in Western Societies (Gabriel and Lang, 1995). Consequently, the importance of selecting an appropriate brand among competing alternatives in most product categories emphasises the unique nature of brand relevance as an important factor in *Consumer Brand Equity*.

Brand relevance is also more important for highly expressive social products such as boxed chocolate and perfume. This is in contrast to everyday functional products. However, this may vary according to usage situation (Jennifer Aaker, 1999).

Agres and Dubitsky (1996) suggested that the creation of appropriate differentiation that closely matches consumers' expectation of a brand is a critical challenge for a brand. If a brand is not personally appropriate to consumers, it is neither going to attract nor keep consumers in any great number. This makes *Brand Relevance* significantly more important in consumer evaluation of brand.

In the light of this research, we are suggesting that: brands that are able to provide personal appropriateness are more successful at building personal relevance than those that primarily rely on brand image that tends to be built on a mass marketing approach. This means that the ability of a brand to deliver a set of brands that are relevant to individual needs represents a more successful basis for building consumer brand equity.

For instance the brand image of Gap and Levi are as potent as ever. Yet, their inability to tap in to the personal relevancy of the consumer drastically affected their market performance particularly in the last couple of years. For instance, in the case of Levi, while its brand image is still regarded as one of the best in its product category, this was not enough to improve its CBE. However, the launch of its 'Engineered Jeans' in 2000 and its 'Rub yourself jeans' in 2002, quickly revived its brand performance. For Levi, these two jeans greatly enhanced its brand relevance by creating innovative jeans that delivered differentiating emotional benefits in the mind of the consumer. Gap, despite its venerable brand image, also launched its 'Every Generation' range in 2002, to emphasise that its brand offers a whole range of items specifically designed to be *Relevant* and appropriate to every generation. However, while both Marks and Spencer and Levi have been successful, the effect of Gap's re-orientation on its CBE is yet to be seen.

8.3.2. Factor 2-Brand History

In the era of information economy, the construct of brand *History* emerges as an important antecedent factor for *Consumer Brand Equity*. The construct of brand history is considered in this investigation as the specific account of a brand that a consumer has acquired over a period of time (see section 4.5.2). Consumers acquire historical facts about brands through several sources (see section 4.4.1.2). These include the brand usage experience of an individual consumer and/or the experiences of others that an individual consumer has learnt about through word of mouth and shared usage experiences. In a recent study, Hankinson (2001) found that historical facts associated with a brand are also more likely to remind consumers of the brand than any other associations. As Keller (2003, p.87) observed, consumers' associations of history and experiences involve more specific concrete evaluation that transcend generalisation designed to appeal to a mass market. This investigation also found that brand history, particularly those aspects that are associated with known facts about, and experience of a brand, influences consumer perceptions.

8.3.3. Factor 3-Brand Image

Earlier in this study brand image is defined as the cluster of associations that consumers (see section 4.4.1) connect with a brand. Such connections are said to be established (see section 2.4.5) through integrated brand communications in which brand value propositions facilitate the linking of ideas through symbols such as logo, colour, signs and music. Such attribution can evoke specific associations with functional attributes of a brand. Brand image can also evoke subjective attributions based on emotional capital that the brand can command in the market non-tangible attributes. However as functional parity between competing brands increases in a product category the key point of differentiation for the consumer is subjective in nature. In this study, the construct of brand image captures the subjective attributes associated with a brand. The construct evokes richer metaphorical and symbolic associations that the consumer has about a brand. This investigation showed that image did have a significant influence on consumer brand equity. In the measurement model of this study the standardised beta co-efficient for this dimension is 0.36 and is more important than *Brand History* (0.34). (See figure 7.4, page 283.)

At the structural level, this study reveals that brand image represents a factor in determining CBE. This may be due to two factors. First, as functional parity increases consumers are able to notice the similarity in quality of competing brands. Hence, they are increasingly less loyal to a particular brand. However, image still retains a very important role in CBE among competing brands in a product category. Secondly, even in the same culture surrounding, the same brand may stimulate different associations among various consumers or consumer groups. Furthermore, increasing difficulty and risk associated with determining consumers' acceptance and rejection of a new product seems to reflect their rejection of brand image carefully constructed for a mass-market audience. Sherry (1987) noted brands are selected as a means of exploring and expressing consumer individualism. In Western Economies that are so rich in "brandscape" consumers are able to select personal brands relevant to their individual self. Brand image is closely attached with a set of core brand associations. Many of these are important for consumers in determining and evaluating the value of competing brands from which personal selection is made.

Brand image then links closely with, and depends on, its relationship with brand relevance. For instance, the total product sector may have a negative image, as is the case in terms of chocolate and consideration for healthy-living and good nutrition. Yet, an individual brand of chocolate could exhibit a high level of brand image as a distinctive representation of the favourable opinion that it commands in consumers' minds.

8.4. DISCUSSING HYPOTHESES RELATING TO ANTECEDENTS TO CONSUMER BRAND EQUITY

8.4.1. Hypothesis One: Brand Relevance

The first hypothesis encapsulates the major shifts that have occurred in consumer behaviour towards brand. While the 1980's were image driven, the 1990's were clearly based on quality and value. However, as Kotler (2003) asserts, consumer brand relationship is highly eclectic. While brand image used to be the primary determinant of consumer evaluation of brand for decades, this is increasingly focused on personal needs and wants that a brand can bring rather than an image driven evaluation. This is reflected in hypothesis one formulated as follows:

H_0 Brand relevance will have a significant impact on consumer attitude towards competing brands in a product category.

The discussion in chapter four (section 4.4.1.1) and section 8.2.1 of this chapter demonstrates that in the new millennium consumers are primarily swayed by the relevancy of a brand as primary determinant of CBE. This attitude is increasingly reinforced by the increased amount of brands with desirable image in many product categories. These abundant brand images offer consumers rich materials from which relevant and appropriate ones are selected to create their own self-image. This creates strong beliefs among consumers that there is always a better brand and they are no longer 'loyal' to a single brand (Shook, 2003).

This investigation has highlighted the changes in criteria by which consumers evaluate brand. Accordingly we accept hypothesis one and reject the null hypothesis that brand relevance will not have a significant impact on consumer attitude towards competing brands in a product category. Brand strategy that is primarily built on relevance enables firms to truly link up with the consumers and build up product intelligence. Product intelligence enables firms to develop a feedback-analysis system and innovate on firms' brand value propositions.

Finally, further support for our conclusion that *Brand Relevance* represents the primary factor in CBE is provided by Mckenna (1991) that over and above carefully constructed images, the consumer chooses brands that are relevant to their perceptual views. This fits very well with the marketing paradigm that is experience-based and emphasises interactivity, connectivity and creativity in offering relevant and appropriate value to the consumer.

8.4.2. Hypothesis Two: Brand History

Hypothesis two underpins the importance of information in a constellation of ideas about a brand. Information about a brand is provided through past usage experience and/or testimonial recommendations. A greater variety of brands provide a lot of information from differing sources. In a market with so many brands competing for consumer attention, those brands that provide ideas embedded in the existing knowledge that make up the history of a brand resonate deeply with the consumer.

H_2 Brand history will have a significant impact on consumer attitude towards competing brands in a product category

In our earlier discussion (see section 4.5.2) we highlighted that the demands of the 21st century place a tremendous amount of value on time. Reliance on brand history saves time in consideration and making purchase decisions. Further support for this hypothesis is provided in the reality of numerous sources of information, particularly those available through various ICT (Information and Computer Technology) protocol such as WWW, the Internet, Intranet and mobile phone. Consumers also rank brand history in the form of word of mouth as one of the highest influences on their buying

habits (LePla and Parker, 2002, p.54). This investigation reflects the importance of various sources of brand story as an important influence on consumer brand equity.

8.4.3. Hypothesis Three: Brand Image

Consumers form iconic representations of their image of self (see 2.5.1.1). They no longer rely on a single brand as the sole offering that satisfies their wants and needs. Rather, they purchase different brands with a portfolio of images that focuses on personal needs and creates a vibrant and reflective portrayal of self. This eclectic selection of images to reflect themselves is influencing the longevity and importance of brand image in consumer brand equity.

H₃	Brand image will have a significant impact on consumer attitude towards competing brands in a product category.

Brand image enables a brand to appeal to that section of consumers who prefer tradition and conformity. However, the appropriateness of a brand -its *relevance* to the consumer - is worth more than any notice that carefully constructed brand image could buy. The path coefficients and significance is presented in Table 8.1.

	Hypotheses	Standardised coefficient	T value
H❶	Brand relevance will have a significant impact on consumer attitude towards competing brands in a product category	(0.5)	11.87
H❷	Brand history will have a significant impact on consumer attitude towards competing brands in a product category	(0.06)	8.75
H❸	Brand image will have a significant impact on consumer attitude towards competing brands in a product category	(0.06)	11.83

Table 8.1 Path Coefficient and Significant Levels of Structural Relationship in Underlying Factors for Consumer Brand Equity Model

The standardised coefficient is a statistical estimate of errors that may occur by chance or by other forms of biases. This enables one to determine the reality or "true" impact of the relations expressed in our hypotheses and how it is reflected in our data sample. The significance of the standardised coefficient for the first three hypotheses as indicated in Table 8.1 are significantly different from zero. This simply means that further testing of the statistical significance of our hypotheses is justified.

For model 1 with 68 degrees of freedom, the critical t-value needed to achieve structural significance between the hypothesised path at 5% significance level is 1.670. Therefore, any t-values greater than 2.39 indicate that the structural relationship is significant at the 5% level. This means that the result that we have obtained from our data could only occur by chance no more than five times in 100 trials. Although one can chose the level of significance arbitrarily, the level of 0.5 is generally accepted as a reasonable level in the social sciences (See for instance, Kerlinger, 2001, p.233).

Path coefficients of our models are also tested to compare their significance using t value. This is a statistical test for the additional contribution to predict accuracy of each path above that of the variables in the connecting paths in our model. At this stage it is worth mentioning that the t value calculation in structural equation modelling (SEM) can be calculated differently from that of multiple regression analysis.

While t value in multiple regression analysis is calculated as an additional contribution of individual variables, in this research we used the SEM method. This is done by comparing *two different path models* (Schumacker and Lomax, 1996, p.45). The outcome of this analysis is reported in the fourth columns of Table 8.1. Since the t value for each of the hypotheses 3, 4 and 5, is satisfactory, one can confidently accept these hypotheses.

This result also has important implications for research generalisation. This is because; one can also have considerable confidence that the estimates of sample means that this will be close to the mean of the population from which our research data was drawn.

In concluding this section on antecedents to *Consumer Brand Equity,* it is clear that brand image is an important factor which influences CBE as propounded in the

literature. However, the findings of this investigation revealed the need for emphasising the overriding importance of *Brand Relevance* in determining the appropriateness of competing brands in a product category to the consumer. Our study also revealed the importance of *Brand History* as a crucial antecedent in CBE formation. In an information economy era, these findings underscore the imperative for brand strategy to take cognisance of brand history as the basis for building consumer experience with brands.

8.5. DISCUSSING HYPOTHESES RELATING TO THE CONSEQUENCES OF CONSUMER BRAND EQUITY

8.5.1. Hypothesis Four: Consumer Perceived Value Consequence of Consumer Brand Equity.

Hypothesis four provided the basis for appraising the impact of CBE on consumer perception of brand value. Testing this hypothesis is essential to our understanding of what constitutes value to the consumer.

H_4 Consumer perceived value will exact different levels of consumer brand equity on individual brands.

In a market with a differing array of brands, selection of a particular brand amounts to the rejection of another. Findings from our study support the assumption that consumer brand choice is based upon their perception of value inherent in their choice. Given the fact that the only reason that the consumers are in the marketplace is that they are looking for something of value (Mittal and Sheth, 2001, p. 4), their choice of a brand reveals their positive evaluation of their choice of the brand that they choose to buy.

8.5.2. Hypothesis Five: Consumer Brand Equity and Its Influence on Competing Brands in a Product Category

Hypothesis five is designed to examine the influence of consumer brand equity on their purchase decision. The underlying assumption here is that a brand that can deliver appropriate value to an individual, over and above other competing brands in the same

product category, will gain the customer's patronage. This means that offering the appropriate value is a necessary and sufficient drive for *consumer brand value* perception.

H$_5$	Consumer brand equity will influence consumer perceived value of competing brands in a product category.

However, because the underlying beliefs that inform individuals' evaluation of specific value may be different, the impact of such value may differ from one person to the next. This is because the consumption of basic food may also be related to wide ranging beliefs regarding what is appropriate or desirable (see our earlier discussions in section 4.2). Our earlier discussions in section 4.4.1 and 4.6.2, together with findings reported in chapter seven, represent significant evidence for this hypothesis. Further support for this hypothesis is provided by Solomon (2001 p. 101), that beliefs may lead to mutual appreciation of similar value even though the underlying systems that inform such value may be distinctively dissimilar.

For instance two people may believe in vegetarianism. But their underlying reasons may be quite different (e.g. animal activism versus health concerns). As underlying values often drives a consumer's purchase decisions, brands are evaluated on the basis of their value propositions and its relevancy to consumers' underlying values. Brands are therefore instrumental in helping individuals to achieve some goal that is linked to a value that people adhere to at a particular time. However because core values are subject to change, the relevancy of a brand to the changing values of consumers is important.

Relating consumer brand equity to its influence on purchase decision is crucial. This is because brands on their own do not create wealth for firms. But consumer purchase of brand creates wealth. However, brands are the magnet that attracts new customers and an anchor upon which existing customers' patronage is dependent. Therefore, brands are as important as the customers that they are able to attract and retain.

8.5.3. Consumer Perceived Value and Its Influence on Purchase Decision

Hypothesis six is that consumers purchase a brand that resonates with their own values and perspectives. Consumer value perception underpins purchase decision where brands provide emotional as well as self -expressive benefits to the customer.

H_6 Consumer perceived value will influence brand purchase decision.

In the new economy era, consumers expect brands to provide relevant and appropriate value for them. They are also more aware of what constitutes value in their own terms rather than as dictated to them by marketers. In this environment, the traditional rhetoric of customer orientation has taken on a sharper definition. Firms are also discovering that value defined in terms of worth, rather than monetary amount alone, is the basic currency in the consumer-brand relationship. This seems to account for the increase in the purchase of luxury and value satisfying items amidst a high increase in consumer power. Hypothesis 6 provided evidence that consumer perception of brand value influenced their propensity to purchase a particular brand among competing alternatives. The outcome of the statistical tests indicating the path standardised coefficients and significance is presented in Table 8.2.

	Hypotheses	Standardised coefficient	T value
H_4	Consumer perceived will exact different levels of consumer brand equity on individual brands.	(0.7)	11.58
H_5	Consumer brand equity will influence consumer perceived value of competing brands in a product category.	(0.5)	11.87
H_6	Consumer perceived value will influence brand purchase decision.	(0.06)	8.75

Table 8.2 Path Coefficient and the *t* Value of Structural Relationship in Consumer Brand Equity

In interpreting the findings from the consequences of CBE into a normative model, we find that brand value perception is predicated upon consumers' subjective evaluation of brands. With this foundation, the CBE model therefore facilitates the understanding of the consumer and the shift in their preferences over time. In relation to earlier discussion, the CBE model enables firms to focus more on consumers' needs and wants as it changes with the dynamic of the environment.

Furthermore, since the fundamental basis for the success of any business depends on its ability to attract and keep customers, it is important for firms to grow their customer brand value perception to its fullest potential. In these terms setting an important marketing strategy becomes that of balancing the consumer brand equity with consumer brand value perception. One can therefore suggest that an important criterion for determining the success of a firm is building *Consumer Brand Equity*. In the next section we examine the implication of the outcome of our hypotheses on the model developed in this study.

8.6. ASSESSEMENT OF THE HYPOTHESISED MODEL

There are several methods of testing hypotheses. Correlation can be used to test specific hypotheses restated in their null form. However, because the analysis presented in chapters 6 and 7 provided further statistical insight beyond correlations, two of these insights were employed in this investigation and presented earlier. These are: (a) coefficients value determination (see section 8.5), and (b) the assessment of the gamma values for five competing brands in the same product category (section 6.2.6.)

Hypotheses relating to the consequences of *CBE* involve the interaction between brand equity, *Consumer Value Perception* and brand purchase. The results of these hypotheses are inferred from the results of the structural interaction between items in the CBE model. The discussion in this section uses the combination of the analysis depicted earlier in table 8.1, and explanatory inferences drawn from the literature. These insights are used to generate an assessment of the consequences of *CBE*, thus presenting a structural model of CBE.

Testing the structural hypotheses entails examining, estimation and interpretation of correlation items from the statistical analysis reported in chapter 7. This involves the examination of the *t*-values for each coefficient that are then tested for statistical significance to determine the hypothesised causal relationship. This test determines if the parameter Estimates are significantly different from Zero (Kelloway, 1998). All the estimated parameters, for the two models, are significant at the 0.05 level or better. This tests the impact of *Consumer Brand Equity* on perceived value of a brand.

The structural pathways of the model are analysed to assess whether they are the same between different brands, or in fact differ across competing brands (Jaccard and Wan, 1996). This takes the form of examining the beta (B) and gamma (Γ) matrices. To test if there are group differences on any of the latent structural coefficients between competing brands, equal constraints are applied to the entire gamma and beta matrices simultaneously. If the result shows a statistically non-significant change in the chi-square, this would imply that none of the coefficients in the gamma or beta matrices differ between the five different brands (Appendix 4).

The results of the analysis indicate that both the gamma and beta matrices exhibit significant disparity between brands. This indicates that the specific variables that influence consumers' preferences for competing brands differ considerably. This implies that consumer value perception exerts different structural relationships between the antecedents and consequences of consumer brand equity.

8.6.1 Results of Hypotheses Testing: Consumer Brand Equity Model 1

In selecting the two hypotheses testing procedures for a model of CBE, cognisance was given to the maximum likelihood estimation (ML) procedure used in establishing structural relationships (Jaccard and Wan, 1996). Both processes involve re-examining the LISREL-SIMPLIS output.

The first procedure tests a specific hypothesis by examining certain structural coefficients against specific values contained in the output (Schumacker and Lomax, 1997, p.133-134). For model 1 with 68 degrees of freedom, the critical t-value needed to achieve structural significance between the hypothesised path at 5% significance

level is 1.670. Therefore, any t-values greater than 2.39 indicate that the structural relationship is significant at the 1% level. The next section discusses the outcome of the tests performed on these hypotheses.

8.6.2. Hypotheses Testing Part II: Consumer Brand Equity Model 1

The fundamental assumption of the structural model developed in chapter 7 is that *Consumer Brand Equity* influences the construct of consumer perceived brand value. It is assumed that consumers will purchase the brand that provides the best worth to them. However, as discussed in chapter four, such worth is not determined by classical economic value, which is expressed in terms of price-utility (i.e., quality considerations of what a brand can do). Rather, consumer evaluation of a brand's worth is expressed in behavioural terms.

The behavioural elements are in terms of personal *Relevance,* perceived level of risk as ascertained through previous *History* of the brand, and social and symbolic meanings reflected in the *Image* of the brand. The propositions developed from these assumptions (see chapter 4) were rendered into hypotheses for testing the structural model.

Inherent in the structural model that we have developed is the construct of *consumer perceived value.* We also hypothesized that such consumers' value perception clearly underpins their buying decision. To test whether the differences in consumer perception of brand value determine the differences in the equity of competing brands in the same product category, the structural pathways of the model we developed were analysed by testing three structural hypotheses (hypotheses 4, 5 and 6).

According to Schumacker and Lomax, "*structural hypotheses can be tested by examining certain structural coefficients of two competing models against specific values*" (1996, p.133). In this approach to hypothesis testing, the full model represents the null hypothesis (H_0), while the alternative model with fewer parameters is denoted as (H_1). The structural hypothesis, the null hypothesis and alternative hypothesis for these tests are formalised as follows:

H_0: $B_{Brand1} = B_{Brand2} B= _{Brand3} B= _{Brand4} B= _{Brand5}$

H_1: $B_{Brand1} \neq B_{Brand2} B \neq _{Brand3} B \neq _{Brand14} B\neq _{Brand5}$

H_0: $\Gamma_{Brand1} = \Gamma_{Brand2} \Gamma= _{Brand3} \Gamma= _{Brand4} \Gamma= _{Brand5}$

H_1: $\Gamma_{Brand1} \neq \Gamma_{Brand2} \Gamma\neq _{Brand3} \Gamma \neq _{Brand14} \Gamma\neq _{Brand5}$

In the above formula, the structural pathways analysed are the beta (B) and gamma (Γ) matrices. The first two lines state that there are no significant differences in the beta matrices of the five competing brands in our two models (H_0 and H_1). The third and fourth lines state that there are no significant differences in the gamma matrices of the five brands tested for the two models in our tests.

To test if there are group differences on any of the *latent* structural coefficients across the five groups, equality constraints are applied simultaneously to both gamma and beta matrices. The power of this test, or the probability of rejecting the null hypotheses (H_0) when H_1 is true, is determined by looking at the significance level, degrees of freedom and sample size effect.

Each of the two models in our analysis generates a χ^2 goodness of fit measures (see table 7.1) and the differences between the two models are tested for significance. This is computed as: $D^2 = \chi^2_0 - \chi^2_1$. The degrees of freedom (df_d) is computed as $df_0 - df_1$. The D2 statistics is tested for significance at a specified alpha level where (H_0) will be rejected if it exceeds the critical tabled χ^2 value with df_d degree of freedom (Kelloway, 1998; Schumacker and Lomax, 1996).

This means that differences in the χ^2 of the two models follows a chi-square distribution and that its degree of freedom should be equal to the differences in the degree of freedom of the two analyses. If the null hypothesis is rejected at 1 percent significance level, the alternative hypothesis states that there are significant differences in the structural pathway of the five brands in our research. The multigroup analysis involves splitting the total data for our brands into five groups. Tests of equivalence of beta matrices between brands, gamma matrices and gamma and beta matrices between five groups of brands were carried out.

The outcome shows that both gamma and beta matrices are significantly different between groups as reflected in Tables 8.3, 8.4 and 8.5. This implies that consumer value perception influences the structural relationship between the antecedents and consequences of CBE differently.

Model	X^2	Degrees of freedom
Constrained	21044.31	364
Unconstrained	18683.09	340
Difference	2361.22 X^2 value to 1% significance level with 24 df = 42.98	24

Table 8.3   Test of Equivalence of Beta Matrices Between Brand Groups

Model	X^2	Degrees of freedom
Constrained	21210.18	390
Unconstrained	18683.09	340
Difference	2527.05 X^2 value to 1% significance level with 50 df = 76.15	50

Table 8.4   Test of Equivalence of Gamma Matrices Between Brand Groups

Model	X^2	Degrees of freedom
Constrained	21151.18	390
Unconstrained	18683.09	340
Difference	2468 X^2 value to 1% significance level with 50 df = 76.15	50

Table 8.5   Test of Equivalence of Gamma and Beta Matrices Between Brand Groups

8.7. CONCLUDING REMARKS

This discussion chapter has assessed hypotheses one to six. The results presented above represent the outcome of the six alternative hypotheses outlined earlier in section 4.7. However, the actual *test* that the six hypotheses were subjected to is to examine the possibility of whether there is no relationship between our research constructs.

In all, we confidently rejected the null hypotheses and affirmed the alternative hypotheses.

We accept hypothesis 1 and agree that in an economy characterised by changes and fast paced technological advances, *Brand Relevance* does have a significant impact on consumer attitudes towards competing brands in a product category.

As the digital revolution that underpins the new economy facilitates the speed and flow of information, it also enables the spread of noteworthy events surrounding a brand. This type of association perpetuates the individual consumer's experiences with a brand. It also involves individual and distinct experience and builds idiosyncratic associations. Therefore, hypothesis 2, that *Brand History* will have a significant impact on consumer attitudes towards competing brands in a product category, is also accepted. We also accept hypothesis 3, which states that the *Image* of a brand will have a significant impact on consumer brand equity of competing brands in a product category.

Hypotheses 4, 5 and 6 relate to the structural consequences of consumer brand equity on consumer brand value perception. Hypothesis 4 was based on the premise that consumers are not influenced by the value of a brand in evaluating the worth of a brand. However, it is clear that consumers' evaluation of individual brands in the same product category is by their perception of the value of competing brands. Therefore, we accept hypothesis four that the consumer perceived value will exact different levels of consumer brand equity on individual brands. Similarly, hypothesis 5, which states that consumer brand equity will influence brand purchase decision, is also confidently

accepted. Finally we accept hypothesis 6 that consumer perceived value will influence brand purchase decision.

The final chapter of this thesis will throw further light on the implications of the above discussions.

RESEARCH IMPLICATIONS AND CONCLUSION

9.1. RECONCEPTUALISING CONSUMER BRAND EQUITY

In this concluding chapter, we discuss the implications and managerial applications of my research, and their contribution to the body of knowledge on consumer brand equity and branding strategy. First, we will highlight the impact of the statistical analysis on the structure of CBE. Second, I discuss the methodological and theoretical implications of this research on various aspects of marketing strategy. (This will include aspects such as: shareholder value analysis; signalling, appropriation of competitive gain; and imitable assets). Third, the implications of this research on management practices are discussed. Finally, we offer a reflective evaluation of the strengths and weaknesses of this study, thereby giving an indication of avenues for the future enhancement of my project.

These research implications have far-reaching consequences for consumer brand equity, for, considered together, my research affects the nature and role of brand in any competitive economy. This is because the syllogistic perspective adopted in this investigation is one that takes the consumer as the basis for competitive policy. But before I spell out the detail of the four implications of my research, it is important to give a brief summary of the structure of CBE.

9.2. THE STRUCTURE OF CONSUMER BRAND EQUITY

I have argued that CBE needs to be re-conceptualised as a model in which brand relevance, brand history and brand image are paramount. This is because the consumer's perception of value cannot be neatly divided into components of different brands. More often than not, the consumer's attitude towards a brand represents indivisible combinations of various subjective connotations surrounding that brand.

These subjective connotations may be triggered by specific consumer needs and wants. Therefore, consumer brand equity is not just one basic type of value. Rather, it is a conglomeration of those *core values* that reflect, affect and guide the overall evaluation of a brand. In short, the orientation presented in this thesis is that brands are remembered, compared, evaluated and chosen on the basis of a multiplicity of subjective factors. It is the ultimate combination of these values (values which significantly match those that consumers regard as desirable) that make up the perceived value of a brand. It is also the ultimate combinations of these values that may be translated into financial worth as a result of consumer brand purchase decision. The key concepts that are germane to identifying those subjective values that are important for CBE are brand relevance, brand history, and brand image.

CBE was therefore operationalised as *the attitudinal evaluation of the economic worth of a brand*. This evaluation is based on the appropriateness of a brand to individual wants, needs and emotions (*Relevance*); previous learnt experience (*History*); and those factors that reinforce or add to the individual expressions of self (*Image*). These elements of CBE also affect the behavioural patterns of consumers in their propensity to purchase.

9.2.1. Brand Relevance

Findings from this research indicate that the key to the effective creation of consumer value does not lie solely in an understanding of consumer wants and needs. This is so for two main reasons. First, while marketers have a great appreciation of consumer needs and wants, competitors' actions and counteractive moves also influence the consumer value creation process. This is an inherent feature of a market economy.

Secondly, the ability of brands to create value for the consumer is also influenced by firms' capabilities and resources. These predispose firms to proactive innovation (Hunt, 2001). It is by anticipating, moulding (Penrose, 1995) and influencing the ever-changing consumer norms that a brand is *made* relevant to consumers. (This was discussed in section 4.4.)

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This cycle of influence among brands, consumer, and the market is constantly changing in competitive economies. Because of technological innovation and highly developed consumption rules that facilitate market changes, what the consumers 'want' may not be apparent to consumers themselves until it is actually made *relevant* to them through marketing activities.

The implication of this is that, as well as innovating on the intrinsic content, a brand must constantly update itself so as to make its subjective as well as intrinsic nature significantly relevant to consumers. What makes a brand relevant for consumers may take some time to diffuse. Creating unique and relevant propositions is, therefore, of crucial importance in the updating of brand relevance. Finally, because people buy things not only for what they can do, but also for what they mean, making brands relevant to consumers should also reinforce brand image.

9.2.2. Brand History

The consumer creates and makes connections with brands by associating brands with past experiences. These associations are made through usage, exposure, word of mouth, or other learning experiences. Simply put, the point is that as an entity, a brand does not create value merely by its existence. Rather it is the customers' evaluation of the uniqueness of the brand and its offerings that determines the contribution of a brand to consumer brand equity (see section 4.4.2).

The valuation and appreciation of brands that build up to form consumer brand equity, accumulates over time. The process usually arises out of several interactions between the consumer and the brand. These interactions may be usage, experience, word-of-mouth, or different forms of deliberate and targeted brand communication processes. It is the percolation of these various ideas about a brand that make up the 'historical bundle' of what a consumer perceives a brand to be in relation to his/or her expression of relevance, self-image and perceived value of a brand (see section 4.4.2).

9.2.3. Brand Image

Brand image is created through a shared negotiation of values, symbolism and meanings between the brand and the consumer. Hence its influence on consumers' attitude toward brands is quite significant. However, brand image seems to be the pinnacle for consumer assessment rather than the primary basis for consideration in brand purchase. This could be due to the fact that in most product categories, there are huge varieties of brands to match different self-images that an individual may wish to portray. Therefore, choice becomes 'something that is given' rather than 'something to strive for' in brand purchase.

Our research does not dispute nor underestimate the impact of brand image on CBE. Rather, it suggests that in an era where there are differing images to choose from, the relevance of the value propositions that a brand is offering the consumer becomes a primary factor in determining their brand value perception.

9.2.4. Consumer Perceived Value: Consequences of Consumer Brand Equity

Consumer perceived value is the subjective evaluation of brand by consumers when they make their purchase decision. The essential role of brand in marketing practice is the offering and delivering of superior value to customers. As consumers become the central basis for marketing (See for instance Seth, 2001) it is the ability of brand to create best value for the end user that generates equity for the different stakeholders involved with the brand. (See section 4.3.3.2.)

Consumer perceived value occurs when consumer brand equity results in the attribution of superior brand value. Such value is created through firms' competitive strategy of branding. This enables firms to provide self-gratification that reinforces consumer behaviour.

9.2.5. Causal Ordering of Relationship between the Dimensions of Consumer Perceived Value

The potential 'causal ordering' among the components of consumer brand equity was considered in chapter seven. The data suggested that three correlated independent

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factors (i.e., brand relevance, brand history, and brand image) and CBE (as a dependent variable) are linked in a linear process. The model developed follows the classical information economic model (e.g. Fishbeing and Ajtzen, 1985). It posited a linear influential relationship between brand relevance, image and history as independent factors, and consumer brand equity as a dependent construct. However, potential moderating variables such as brand image and price were not included in the model constructed in this investigation.

It is on the basis of the foregoing that our research tested the following null hypotheses:

Null Hypotheses	Decision	Market Based Reality
Brand relevance does not have a significant impact on consumer attitude towards competing brands in a product category	Rejected.	Brand relevance does have a significant impact on consumer attitude towards competing brands in a product category
Brand history does not have significant impact on consumer attitude towards competing brands in a product category	Rejected	Brand history does have a significant impact on consumer attitude towards competing brands in a product category
Brand image does not have significant impact on consumer attitude towards competing brands in a product category	Rejected	Brand image does have a significant impact on consumer attitude towards competing brands in a product category
Consumer perceived value does not exert different levels of consumer brand equity on individual brands.	Rejected.	It is statistically significant that consumer perceived value does impose different levels of consumer brand equity on individual brands.
Consumer brand equity does not influence consumer perceived value of competing brands in a product category.	Rejected.	Consumer brand equity does influence consumer perceived value of competing brands.
Consumer perceived value does not influence brand purchase decision	Rejected	Consumer perceived value does influence brand buying decision

Table 9.1. The Null Hypotheses

9.3.   IMPLICATIONS OF RESEARCH

At the beginning of this chapter, I maintained that there are at least three important implications of my research on marketing. These implications are statistical

implications, methodological and theoretical implications, and managerial implications. We will discuss these implications in the remainder of this chapter.

9.3.1. Methodological, Statistical and Theoretical Implications

Philosophers of science such as Kuhn (1970) assert that scientific objectivity is seldom espoused in isolation to human subjectivity. Such subjectivity may be based on intuition, imagination, hunches, and 'luck' (Barney, 1986; Slater, 1980)—all of which play important parts in the propounding of an idea. The point on subjectivity about which these philosophers have theorised is in fact implicit in SEM. The understanding of consumer brand equity was, therefore, enhanced with the application of SEM in this study. This is because with SEM, one is able to link empirically derived statistical inferences with theoretically espoused positions. Given the fact that empirically derived statistics are inherently imprecise (this is particularly so in the social sciences), a field is better served if one is able to let substantive theory provide a strong guide in both model building and analysis.

In fact, researchers embarking on the SEM approach are strongly urged to base structural equation models on sound theory (See for instance Pedhazur and Schmelkin, 1991; Schumacker and Lomax, 1996, p.135). Objectivity that solely relies on statistical inference can neither adequately validate, nor provide sufficient foundation for understanding. Hence, for empirically derived objectivity to be meaningful, it is important to adopt a coherent body of explanation as an aid to understanding. In the long run, such a body of explanation will improve research methods, predictive ability and the practical application of findings.

9.3.2. Implications of Consumer Brand Equity for Shareholder Value

Yovovich's (1988, p.19) observation that *"strong brand names create stronger cash flows and stronger earnings, which in turn creates stronger values for shareholders"* epitomises the view that the worth of brand names manifest themselves in the financial market value of firms. An inference that can be drawn from this finding is that it is the actual creation of consumer brand equity that informs the stock market increase rather than just any movement that may be due to an existing inherent strength of the brand itself. Therefore, if consumers perceive the value of a brand to

be less than that of its competitors, they may be less disposed towards buying such a brand.

9.4. MANAGERIAL APPLICATIONS OF CONSUMER BRAND EQUITY MODEL

Understanding and measuring consumer brand equity (and factors that enhance the magnitude of a brand's CBE) are of significant importance to businesses. Measuring these factors help us to understand why some apparently 'big-brands' loose their way and the goodwill of their customers. It could also help in explaining why some brands with no strong names behind them are able to make a rapid in-road into their product/service category. With this in mind, discussion on the application of the CBE model reflected upon its usage as a metric for measuring consumer value. It also discusses the application of the CBE model for measuring the impact of branding policy on creating shareholder value, and assessment of marketing practices' contribution to competitive strategy.

9.4.1. Consumer Brand Equity as an Aid in the Appropriation of Competitive Gain

Among the various benefits that a brand may provide to an organisation, its strategic advantage is one of its most important. Appropriation of competitive gain through branding is particularly noted as having substantial impact in a focused business context (See for instance Hendry, 1997).

The strategic use of branding for competitive manoeuvring and signalling (Mintzberg, Quinn and Ghoshal, 1999; Porter, 1985; Trout and Ries, 1972) is one key advantage of branding. Successful marketing strategy consists of firms keeping their 'eyes open' to innovative and new product possibilities, and then striking before the product leader is firmly fixed in consumers' minds. Therefore, an existing brand's ability to provide innovative value propositions to consumers could be extended to a new product to take advantage of an already established brand in the market place. For instance, the goodwill from one brand can be extended to a new product through brand extension. This will enable the extended brand to gain rapid external

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recognition more readily than would have been the case with a totally new brand name. Creating a super-brand out of an existing strong brand may also facilitate the appropriation of gain. This is because a super-brand with an effective and coherent brand management can support further stretching, co-branding, and brand bundling.

The effective use of brand in competitive positioning also performs strategic roles in competitive activities by creating a barrier which forces new entrants to incur the huge investment required to endow a product with the unique associations, meanings and personality that differentiate it from its competitors. The cost of overcoming customer loyalty (cf. Porter, 1979, 1994) is also an added barrier that any would be competitor has to contend with. Existing customer value could provide predictability that reduces and stabilises the elasticity of demand. The inability of competitors to duplicate the overall impression and reputation (e.g. Grant, 1991) that a brand connotes in customers' minds is a powerful means of securing competitive advantage.

9.4.2. Influencing the Plasticity of Demand

The reality of the 'crowded' marketing place, a place where the volume of high quality product increases everyday, means that the market leader is usually the one who establishes itself firmly in people's minds. In this regard, one of the fundamental facets of brands is the creation of norms. Brand creates norms by suggesting alternative meanings through the use of technology and economics of production. Advancement in technology leading to new offerings and usage habits then influences what the consumer regards as acceptable or 'cool' things to have, use or buy. These alternative meanings create norms by influencing attitudes and dictating what specific segments of society regard as true of particular brands. The brand can then generate favourable attitudes and becomes a 'must have' brand. Although norms and attitude sometimes clash, when this does happen norms usually win (Schofield, 1975).

The nature of competitive economics and technology aid the presentation of alternative meanings through new value propositions and innovation. Competition precludes the need to offer something that is ' better' than one's rival in an attempt to attract and create more demand. This in itself facilitates the process of research and development and it may lead to improved or new offerings. Advancement in

technology facilitates this competitive race for betterment, and invariably, suggestions of credible alternatives to an existing offering.

Brands' ability to influence consumer purchases through new value propositions and innovations simplifies the thought process that consumers need to go through in making a purchase decision. Brands are increasingly important as the 'hangs that hook the product in the prospect's mind'. Established brands are well able to present credible reference points for positive attitude formation. Brands that are also accessible from memory due to their high level of relevance to consumers (or through recent activation through imagery and history of usage) are more able to influence prevailing norms than those that are not. Such brands effectively deny the consideration spot to their competitors in consumer norm formation. The recent case of Gap's transformation of Khaki into a must have clothing item with its 'everybody in Khaki' (and multi-coloured khaki, rather than traditional grey) transformed the nature of choice in jeans and casual trousers.

9.4.3. Consumer Brand Equity as Sources of Ricadian Rent

Economists refer to the gain that accrues to owners of a unique factor as *Ricadian rent* (Lippman and Rumelt, 1982; Peteraf, 1995). Several sources of *Ricadian* rent are further explained as the rights to a reputable brand (Montgomery and Wernerfelt, 1997, p.174). The right to a strong brand and all it entails represents an identifiable source of *Ricadian rent* that can be earned by brand owners. This value represents differences between brand owners' gain, reflecting the presence of superior consumer brand equity that is not equally accorded to other brands.

Ricadian rent is regarded as a managerial consequence of consumer brand equity, because consumer patronage represents the strategic gain that firms need to command in order to gain competitive advantage. Three key sources of *Ricadian rent* from consumer brand equity can be identified. First, a brand can command a premium price that reflects the worth consumers placed on the magnitude of such brand's relevance to them. Consumer willingness to pay a premium price may lead to premium profit. Secondly, the stock market value of a brand may also command higher equity based on the level of its CBE as a future source of patronage, creating economic value for

brand owners. Thirdly, a strong brand can generate steady market growth through effective management activities such as brand extension and stretching (See section 9.4.1).

The model of consumer brand equity developed in this thesis can be used as a metric for measuring the level of *Ricadian* rent that a brand can generate for a firm. *Ricadian* rent is an important market based asset that may result from accumulated consumer brand equity that manufacturers may want to measure. This is because competitive gain from the successful implementation of brand strategy is a unique idiosyncratic value that can only be utilised by the brand owner.

9.4.4. Research Limitations

In terms of methodological limitations, one can examine the sample, data collection method and method of analysis as sources of possible limitations. The sample survey was drawn from consumers in the UK. Therefore, any generalisation of my research results to consumers outside the UK has to be done with caution. None the less, the findings relating to the three underlying CBE factors apply to other Western economies.

These factors apply to other Western economies for two reasons. First, the intense nature of competitive activity also fosters manufacturing and technological acceleration across sectors. This development has greatly accelerated and enhanced the quality of production in all Western economies. Consequently, consumption activities in Western economies are well developed. Consumers also have near-perfect information about the availability, characteristics, benefits, and prices of all brands (Hunt, 2001). (See section 4.2). The brand has become the basis of conversation and on-going dialogue between firms and consumers. In becoming socially constructed, brands have also become indispensably *relevant* to consumers in Western economies where people share similar consumption patterns and similar economic abilities to purchase.

Also, because data was collected at a single point in time, it was only possible to draw conclusions regarding influences and associations between brand relevance, history,

and image and consumer brand equity. True causal implications can be strengthened with multiple years of measurement of both the independent and dependent variables. However, the inclusion of moderating factors was considered to be beyond the scope of this initial empirical effort.

Finally, the fact that respondents to our survey are students is another limitation of this investigation. However, this does not adversely affect our research outcome for two main reasons. First, the investigation in this study is essentially a model building and theory testing. For this purpose, it is important that our sample should meet certain criteria. These are: (i) reproducibility of sample, and (ii) convenience. This requires sampling respondents from homogenous groups sharing similar characteristics and dimensions that are likely to influence the variables of interest. A more robust test of theory is also enhanced leading to better theoretical insight than is possible with a heterogeneous sample (see section 5.3.2.2. for sample frame justification).

Secondly, Increasingly, consumer in the age group that students predominantly fall into (18-27) is one of the most 'brand conscious' in Western Economies. They also have a good amount of disposable income than previous generations of students. Hence, they no longer present consumption and purchasing novice that serve as significant impediment to their participation in research survey.

9.5. SUGGESTIONS FOR FURTHER RESEARCH

The limitations mentioned above suggest avenues for further research. For instance, the researcher may examine the role of brand names in influencing CBE. In addressing this particular area of research, key issues would include those of how to choose an appropriate brand name, and the changing of names for an already existing brand. This is particularly important as the globalisation of brands intensifies the need for a global brand. Recent brand name changes such as CIF (formerly JIF) and Accenture (formerly Andersen Consulting) are recent examples of the effects of globalisation on brand names. Further research is needed to understand the nature of brand positioning in successful brand change.

The current study can also be replicated with another method of data analysis. For instance, a qualitative research should provide in-depth and richer information on the underlying factors for brand equity proposed in this research.

Another avenue for future research is that of how the value of a brand can be protected against damages such as crisis, bad publicity and rumours. As the experience of Ford with its tyre in the US market illustrates, damage could have significant effects on consumer brand equity.

9.6 REVIEW OF MAIN CONCLUSIONS AND RESEARCH CONTRIBUTIONS

The theme of this thesis has been that the relevance, history and image of brands determine the structure of consumer brand equity. I also maintained that these factors influence the subjective evaluation of a brand's worth. The thesis also surmised that building consumer brand equity is far more complex than anything suggested by the traditional additive process of combining various functional factors.

More specifically, the main contributions of this work can be identified as follows:

- This research re-conceptualised the concept of consumer brand equity, and it clarified the construct through a psychometric instrument administered to consumers.
- CBE was found to be a multidimensional construct. Its dimensions were identified and reliably validated through CFA.
- The research addressed the potential causal ordering among various components of CBE and it tested the predictive capacity of the resulting instrument.
- The consequences of CBE were identified and their implications for theory, managerial and research methods in marketing were highlighted.
- This research, therefore, not only makes a significant contribution to knowledge in branding; it also has wider implications for fields such as accounting, corporate strategy, and competitive strategy.

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APPENDIX 1

Invitation to Focus Group Discussion

MEMO

TO: {NAME RESPONDENTS}

FROM: Temilade ABIMBOLA

SUBJECT: FOCUS GROUP INTERVIEW

DATE: 19/01/98

Following an oral invitation you have accepted, please find below further detail about the focus group discussion. Our discussion will centre on brand and purchase decision making.

TIME: 12.30pm

PLACE: Resources Room, South Wing Floor 11

SUBJECT: 'Giftable' Boxed Chocolate (After Eight, Fererocher etc.)

KEW WORDS: Boxed chocolate, gift item, brands and price.

APPENDIX 2
Initial Pool of Items for Consumer Brand Equity Scale

	Terry's All Gold	Nestle Dairy box	Cadbury's Milk Tray	Store brand	Ferrero Roche
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I know can return this boxed chocolate without loosing my money, if I am not satisfied with	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This chocolate's advertisements is entertaining	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
For me this is a reliable brand	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I have been buying this brand for a long time	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This brand has a rich history	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This is a brand I would trust	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
In comparison with others I hold this brand in high esteem.	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I always hold a fond memory of this brand	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
My memory of this chocolate box goes back to my childhood	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I regard this brand as a reliable friend	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I feel confidence in recommending this brand to others	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This box of chocolate met my expectation last time I bought it	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I only buy this boxed chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I feel very friendly with this box of chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
In my opinion, this is the best boxed chocolate in the market	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The brand name of a box of chocolate is not that important	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I like this box of chocolate the most	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The is the best boxed chocolate for a gift	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Initial Pool of Items for Consumer Brand Equity Scale

This boxed chocolate cheers me up whenever I eat it	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate is very distinctive	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate is a nice treat	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I am devoted to this boxed chocolate brand	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
If my usual store does not have a box of this chocolate, I will go to another stone to buy it	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This will provide the best possible taste to satisfy me	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Eating this brand is pleasurable	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Buying this box of chocolate is good value for money	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
A box of this chocolate always meets my need	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I am very pleased with this boxed chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate has a clear image	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I buy this brand of boxed to express myself to others	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Buying this boxed chocolate as gift adequately conveys my sentiments	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate has a positive image	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I buy this box of chocolate to expresses the way I feel	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I buy this box of chocolate because it is the most prestigious in the market	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Buying a box of this chocolate make me feel good	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I know what this chocolate stand for	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I buy this box chocolate to portray how I wish others to see me	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I choose this brand to portray how I wish others to see me	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Initial Pool of Items for Consumer Brand Equity Scale

Price is not important when I buy chocolate as gift	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I don't mind paying more for a brand I like	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I know how much a 210g box of gift chocolate box cost	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
The price I pay for a box of chocolate depend on whom I am buying it for	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Price is not important to me when I buy high quality boxed chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

APPENDIX 3
Consumer Brand Equity Second Scale for Assessing Convergent Validity

Please circle the appropriate number from 1-5 with 1 as <u>STRONGLY DISAGREE</u> and 5 as <u>STRONGLY AGREE</u>

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
I expect to pay more for high quality chocolate	1	2	3	4	5
I do not trust the quality of cheap chocolate	1	2	3	4	5
I expect cheap chocolate to be of low quality	1	2	3	4	5
I learn a lot about the quality of boxed chocolate through its advertising	1	2	3	4	5
A boxed chocolate must be good for it to be advertised on national TV	1	2	3	4	5
I enjoy seeing my favourite boxed chocolate's advertisement	1	2	3	4	5
I look for well known brands of boxed chocolates	1	2	3	4	5
I like to buy well known boxed chocolates	1	2	3	4	5
I don't mind buying the store brand of boxed chocolate as a gift	1	2	3	4	5
The brand name of a boxed chocolate is not that important	1	2	3	4	5
I do not select boxed chocolate by brand name	1	2	3	4	5
When buying boxed chocolate I always look at the brand name	1	2	3	4	5
I can tell a lot about a person from the brand of boxed chocolate they give	1	2	3	4	5
Price is not important when I buy boxed chocolate that I like	1	2	3	4	5
The price I pay for a box of chocolate depends on whom I am giving it to	1	2	3	4	5

Appendix 4
Sample Details of Respondents to Consumer Brand Equity Survey

The Sample Frame of Respondents from Aston Business School by Programme and Gender
Includes Undergraduate, Post Graduate Taught Students and Doctoral Research Candidates

PROGRAMME_TITLE	GENDER			
	F	M	Grand Total	
BSC ACCOUNTING FOR MANAGEMENT	37	57	94	94
BSC MANAGERIAL & ADMINISTRATIVE STUDIES	232	210	442	442
BSC MARKETING	52	58	110	110
				0
BSC PSYCHOLOGY & MANAGEMENT				0
	101	32	133	133
M.B.A.				
	3	18	21	21
MSC IN FINANCIAL MANAGEMENT AND CONTROL	4	6	10	10
MSC IN MARKETING MANAGEMENT	5	3	8	8
MSC INTERNATIONAL BUSINESS	4	3	7	7
MSC PERSONNEL MGT & BUS.ADMIN.	15	2	17	17
Doctoral Research Candidate	3	5	8	8
Grand Total	456	387	850	850

Total Number of UK Students at Aston Business School (ABS) January 1999	1273
Total Number of UK Students at ABS Surveyed	850
Percentage of ABS Students Respondents from the UK	66%
Total Quesionnaire Returned	438
Response Rate	51%

Confidentiality statement

The data obtained and your responses to this questionnaire will only be used by Aston Business School for the purposes of academic research and no information provided will be attributed to persons in part or in full without their prior written consent.

Thank you for participating in this study of consumer buying behaviour. Please do not hesitate to contact the research team by E-mail at: branding@aston.ac.uk if you require any further information.

Temi Abimbola	John Saunders	Dr Amanda J Broderick
BA (Hons) MBA	Professor of Marketing	Lecturer
Doctoral Research Student	Head of School	Aston Business School
Aston Business School	Aston Business School	

APPENDIX 5
Consumer Brand Equity Questionnaire

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE. PLEASE INDICATE YOUR ANSWER OR OPINION BY TICKING THE APPROPRIATE BOXES. THROUGH OUT THIS SURVEY, _BOXED CHOCOLATES_ REFERS TO CHOCOLATE ASSORTMENTS, WHICH ARE PROFESSIONALLY PRESENTED (THIS MAY INCLUDES AFTER DINNER MINTS).

Please tick the appropriate box for your response to each item below

1   Have you being living in United Kingdom for the last three years?

Yes   [ ]   No   [ ] **(If no, then terminate survey)**

1a Have you purchased boxed chocolates in the past year?
Yes   [ ]   No   [ ] **(If no, then terminate survey)**

1b To be sure that we talk with people across ages, please state how old you are?

----------------------------- years old

1c Female [ ]   Male [ ]

2   On average how often do you:

2a Purchase boxed chocolate Once a week [ ] Once every two weeks [ ] Once a month [ ] Less frequently than once a month [ ]

2c Receive boxed chocolate Once a week [ ] Once every two weeks [ ] Once a month [ ] Less frequently than once a month [ ]

2b Purchase boxed chocolate Once a week [ ] Once every two weeks [ ] Once a month [ ] Less frequently than once a month [ ]
    as a gift

2d Buy boxed chocolate for Once a week [ ] Once every two weeks [ ] Once a month [ ] Less frequently than once a month [ ]
    Personal consumption

3   When purchasing boxed chocolate as a gift, what occasion(s) typically describe your **_MOST COMMON_** buying reason? (*Please tick one or more as applicable*)

Seasonal Gift [ ]   Occasional Gift [ ]   Anniversary Gift [ ]   Others [ ] (please specify)   ---------------------------

3a Who did you give the boxed chocolate to last time you purchased it? (*You may tick more than one*)

Mum [ ]   Dad [ ]   Grandparents [ ]   Partner [ ]   Friend [ ]   Teacher [ ]   Others [ ] (Please specify) ---------------------------

APPENDIX 5
Consumer Brand Equity Questionnaire

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People consider various characteristics besides price when buying boxed chocolates. Please rate the following questions according to how you feel about them in relation to their role in your purchase decision.

Please circle the appropriate number from 1-5 with 1 as <u>STRONGLY DISAGREE</u> and 5 as <u>STRONGLY AGREE</u>

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
I expect to pay more for high quality chocolate	1	2	3	4	5
I do not trust the quality of cheap chocolate	1	2	3	4	5
I expect cheap chocolate to be of low quality	1	2	3	4	5
I learn a lot about the quality of boxed chocolate through its advertising	1	2	3	4	5
A boxed chocolate must be good for it to be advertised on national TV	1	2	3	4	5
I enjoy seeing my favourite boxed chocolate's advertisement	1	2	3	4	5
I look for well known brands of boxed chocolates	1	2	3	4	5
I like to buy well known boxed chocolates	1	2	3	4	5
I don't mind buying the store brand of boxed chocolate as a gift	1	2	3	4	5
The brand name of a boxed chocolate is not that important	1	2	3	4	5
I do not select boxed chocolate by brand name	1	2	3	4	5
When buying boxed chocolate I always look at the brand name	1	2	3	4	5
I can tell a lot about a person from the brand of boxed chocolate they give	1	2	3	4	5
Price is not important when I buy boxed chocolate that I like	1	2	3	4	5
The price I pay for a box of chocolate depends on whom I am giving it to	1	2	3	4	5

Consumer Brand Equity Questionnaire

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Now, I would like to get your impressions of five different brands of boxed chocolate. For each one, could you please rate the following items in relation to your general attitude and opinions about each brand? Please circle the appropriate number from 1-5 with 1 as <u>STRONGLY DISAGREE</u> and 5 as <u>STRONGLY AGREE</u>

Please <u>CIRLCE</u> the appropriate box for your response to each item below

	Terrys All Gold	Rowntree's Quality Street	Cadbury's Milk Tray	Ferrero Roche	Classic Selection (Woolworth)
I can get a refund if I am not satisfied with this boxed chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate's advertisements are entertaining	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I buy this boxed chocolate regularly	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This brand of boxed chocolate has a rich history	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This is a boxed chocolate I would trust	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I hold this boxed chocolate in high regard	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I have fond memories of this boxed chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
My memory of this boxed chocolate goes back to my childhood	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I regard this boxed chocolate as a reliable friend	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I feel confident in recommending this boxed chocolate to others	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate met my overall expectation last time I bought it	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This is the box chocolate I buy most often for myself	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
In my opinion, this is the best boxed chocolate in the market	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I like this boxed chocolate more than any other	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This is the boxed chocolate I usually buy as a gift	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate cheers me up whenever I eat it	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I usually treat myself with a box of this chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate is very distinctive	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I am devoted to this boxed chocolate	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
If my usual store does not stock this chocolate, I will go to another store to buy it	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

Consumer Brand Equity Questionnaire

	Terrys All Gold	Rowntree's Quality Street	Cadbury's Milk Tray	Ferrero Roche	Classic
The taste of this boxed chocolate is most satisfying to me	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Eating this boxed chocolate is pleasurable	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate is good value for money	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate has a clear image	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This brand of boxed chocolate would convey my feelings to others	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate adequately conveys my sentiments	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate has a positive image	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate expresses the way I feel	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate is prestigious	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Eating a box of this chocolate makes me feel good	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
I know what this boxed chocolate stands for	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
This boxed chocolate portrays how I wish others to see me	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

6   **FOR THE NEXT FEW QUESTIONS, PLEASE THINK ABOUT THE BRANDS OF BOXED CHOCOLATE MENTIONED BELOW (Q.6a). EVEN IF YOUR FAVOURITE BOXED CHOCOLATE IS NOT INCLUDED AMONG THEM, PLEASE ANSWER THE QUESTIONS AS IF YOU WERE CHOOSING AMONG THESE BRANDS.**

Please tick the appropriate box for your response to each item below

6a   In terms of your overall preference for each brand, could you please <u>RANK</u> the boxed chocolate below from 1-5 (**1 been LEAST preferred and 5 MOST preferred**)?

Terrys All Gold [ ]   Cadbury's Milk Tray [ ]   Rowntree's Quality Street [ ]
Ferrero Roche   [ ]   Classic Selection (Woolworth) [ ]

6b   The average price of a 210gram of each boxed chocolate below is **£1.30**, how would you rate each brand on value for money? (Please rate **1 as the least value for money** and **5 most value for money**)

Terrys All Gold [ ]   Cadbury's Milk Tray [ ]   Rowntree's Quality Street [ ]
Ferrero Roche   [ ]   Classic Selection (Woolworth) [ ]

6c   Of the five boxed chocolate mentioned above, which one is your FAVOURITE brand? (*Please specify one brand only*)

If the price of your MOST preferred brand (Q.6a) is higher than the price of your LEAST preferred brand among the five brands and your LEAST preferred brand is £1.30 for 210 grams of boxed chocolate.

6d   What price would each 210 grams of the following five brands have to be in order to make all of them equally attractive to you? (*Please specify price in pound and pence*)

Cadbury's Milk Tray	Rowntree's Quality Street	Terrys All Gold	Ferrero Roche	Classic Selection (Woolworth's)
£	£	£	£	£

6e   If the average price of a 210 grams of box chocolate is £1.30, how much would the price of your MOST FAVOURED boxed chocolate have to be before you buy another brand of chocolate among the five brands above? (*Please specify in pounds and pence below*)

----

7   **THESE LAST QUESTIONS ARE FOR CLASSIFICATION PURPOSES ONLY.**

Please tick the appropriate box for your response to each item below

7a   At what kind of store do you most often buy boxed chocolate (*You may tick more than one*)?
Supermarkets[ ]   Chemist/variety stores (e.g. Boots & Woolworth) [ ]
Petrol stations shops[ ]   Health Food stores[ ]   Specialist sweet/chocolate stores[ ]
Cigarette, Tobacconist & Newspaper Store [ ]

7b   Please indicate your mode of study? (*Please tick only one response*)
Full time [ ]   Part time [ ]

Consumer Brand Equity Questionnaire

7c Please indicate your degree programme? (*Please tick only one response*)
Undergraduate[ ] MBA [ ] Post graduate taught (e.g. MSc) [ ] Post graduate research [ ]
Doctoral research [ ]

7d Do you live in the same accommodation throughout the year? (*If* Yes *please proceed to Q.7e if No proceed to Q.7f.*) Yes [ ] No [ ]

7e What is the Postcode of the house? --

7f Do you live away from home during term? (*If* Yes *proceed to Q.7g*) Yes [ ] No [ ]

7g What is the postcode of your parent household? -----------------------------------

7h What is the job title of the main breadwinner of your household? (*Please specify below*)

For a chance to win a box of your favourite chocolate and a bottle of Champagne, please tell us a few **UNIQUE** thing that positively describe your favourite brand of boxed chocolate. (Don't forget to include your contact address where we may notify you of the result)

_____

_____

✍ Name   ---

✍ Address ---

✍ E-mail   ---

If you have questions or comment about any aspect of this study, you may contact the research team at Aston Business School by E-mail at: *branding@aston.ac.uk*. Thank you very much for your help in this study. Remember your opinion counts!

Temi Abimbola	Professor John Saunders	Dr Amanda J Broderick
Doctoral Research Student	Head of School	Lecturer
Aston Business School	Aston Business School	Aston Business School

APPENDIX 8
Measurement Items for Consumer Brand Equity Scale

(1.)   In my opinion this is the best-boxed chocolate in the market.

(2.)   I feel confident in recommending this boxed chocolate to others.

(3.)   If my usual store does not stock this boxed chocolate, I will go to another store to buy it.

(4.)   I like this boxed chocolate more than any others.

(5.)   This is the brand of boxed chocolate that I buy most often.

(6.)   This brand of boxed chocolate has a rich history.

(7.)   I have a fond memory of this boxed chocolate.

(8.)   This boxed chocolate is very distinctive.

(9.)   This boxed chocolate has a positive image.

(10.)   This boxed chocolate adequately conveys my sentiments.

(11.)   This boxed chocolate met my overall expectation last time I bought it.

(12.)   This is boxed chocolate that I would trust.

(13.)   I hold this boxed chocolate in high regard.

Statements 1-5 measure Brand relevancy
Statements 6-7 measure Brand history
Statements 8-10 measure Brand image
Statements 11-13 measure Consumer brand equity