

# **THE EFFECT OF THE SENSES ON THE PERCEPTION OF A BRAND**

by  
KARIEN VAN JAARVELD

DISSERTATION PRESENTED IN FULFILLMENT OF THE  
REQUIREMENTS  
FOR THE DEGREE OF  
MASTER OF COMMERCE



IN THE DEPARTMENT OF BUSINESS MANAGEMENT AT  
STELLENBOSCH UNIVERSITY

PROMOTOR: DR C. GERBER  
CO-PROMOTOR: C.D. PENTZ

FEBRUARY 2010

## Declaration

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

.....

Karien van Jaarsveld

Date: 25 February 2010

Copyright © 2010 Stellenbosch University

All rights reserved

## EXPRESSION OF THANKS

I would like to express my sincere gratitude to the following people, without whom this achievement would not have been possible.

- To Dr. Charlene Gerber, for her encouragement and for sharing her knowledge and experience, as well as her confidence and belief in my achievements.
- To Mr. Chris Pentz, for his professional guidance and support.
- To Mrs. Marjorie van Wyk, for proof-reading and providing punctual and efficient feedback.
- To Distell, for the use of the sensory laboratory for the experimental research of this study, and for the keen assistance from the production department in the experiment. Lastly, I thank the marketing department for sharing the relevant brand information.

## SUMMARY

Against the background of the challenge marketers face in influencing consumer perceptions of brands, this study attempts to assess the effect of the senses on the perception of a brand. Perception is the way in which consumers interpret the world around them, with the senses as the receptors of information from the environment. One way of influencing consumer perceptions is by stimulating or involving multiple senses in brand building. To test this statement, the following research question was drawn: 'Do the senses affect the perception of a brand?'

The empirical study was one of an experimental nature, and a 2 x 2 x 2 factorial design was used to assess the effect of the senses on the perception of a brand. In order to focus the research and to provide information to a leading distributor of alcohol spirits in South Africa, it was decided to concentrate on alcohol, more specifically, brandy. Due to the nature of the selected brand, sensory properties in relation to the product were used to measure the effect of the senses on brand perception. The nature of the brand is a consumable, and taste was used as the dependant variable to measure perceptions. The stimulated senses in the experiment are sight, sound and smell. The stimuli were: sight with the visible brandy colour, sound in the form of brandy being poured into a glass and smell as an enhanced honey aroma. Several experiments were conducted in a sensory laboratory, which assessed the effect of the senses on the perception of a brand, by way of individual main effects, two-way interactions and a three-way interaction. A

convenience sample of 240 alcohol spirit consumers, from the Western Cape, was used to conduct the experiment.

The empirical results indicated that the three independent variables (individual main effects or two-way interactions) did not have significant effects on perception. Most importantly, it was found that the three-way interaction of sight, sound and smell did have a significant effect on the perception of a brand. Therefore, this study revealed that multiple stimulated senses affect the perception of a brand.

## OPSOMMING

Hierdie studie handel oor die effek van sintuie op persepsie van 'n handelsmerk, teen die agtergrond van die bemerkings uitdaging wat bemarkers teenstaan om verbruikers se persepsie van handelsmerke te beïnvloed. Persepsie is die manier waarop verbruikers die wêreld interpreteer, met die sintuie as ontvangers van inligting vanuit die omgewing. Een manier waarop persepsies beïnvloed kan word, is deur die stimulering en betrekking van 'n meerderheid van sintuie met die bou van handelsmerke. Om hierdie stelling te toets is die volgende navorsingsvraag gestel: 'Beïnvloed die sintuie die persepsie van 'n handelsmerk?'

Die empiriese studie was eksperimenteel van aard, en 'n 2 x 2 x 2 faktoriese ontwerp is gebruik om te bepaal wat die effek van die sintuie op 'n handelsmerk persepsie is. Om inligting aan 'n verspreider, wat 'n markleier van alkohol spirietes in Suid-Afrika is, te verskaf, is daar besluit om op alkohol, en meer spesifiek, brandewyn te fokus. Weens die aard van die gekose handelsmerk is sensoriese eienskappe in verband met die produk gebruik om die effek van die sintuie op die handelsmerk te bepaal. Die produk is 'n verbruikbare produk, en smaak is as die onveranderlike gebruik om persepsie te meet. Die gestimuleerde sintuie in die eksperiment was sig, klank en reuk. Die stimuli was:

- sig met die sigbaarheid van die brandewyn kleur,
- klank in die vorm van 'n brandewyn wat geskink word en
- reuk as 'n beklemtoonde heuningreuk.

Verskeie eksperimente is uitgevoer in 'n sensoriese laboratorium om te bepaal wat die effek van die sintuie op die persepsie van 'n handelsmerk is. 'n Geriefliksheidsteekproefmetode van 240 verbruikers, van die Wes Kaap, was gebruik om die eksperiment uit te voer. Hierdie respondente was almal alkohol verbruikers wat ook spirietes gebruik.

Die empiriese resultate het getoon dat die drie veranderlikes (individuele hoof effekte of tweerigting interaksies) geen beduidende effek op persepsie gehad het nie. Die belangrikste bevinding was die dat die drierigting interaksie van sig, klank en reuk wel 'n beduidende effek op die persepsie van 'n handelsmerk gehad het. Die studie het getoon dat, dus veelvoudige gestimuleerde sintuie die persepsie van 'n handelsmerk beïnvloed.

# TABLE OF CONTENTS

<b>CHAPTER 1: INTRODUCTION TO THE STUDY</b>	<b>1</b>	
1.1	Introduction	1
1.2	Background sketch	1
1.2.1	Consumer perception and learning	4
1.2.2	The senses	6
1.3	Reason for the study	8
1.3.1	Formulation of the problem	12
1.4	Objectives of the study	13
1.5	Research method	14
1.5.1	Secondary research	14
1.5.2	Primary research	15
1.5.2.1	Population of the study	19
1.5.2.2	Sampling method	20
1.5.2.3	Data gathering	20
1.5.2.4	Data processing	21
1.6	Orientation of the study	21
<b>CHAPTER 2: CONSUMER PERCEPTION AND LEARNING</b>	<b>24</b>	
2.1	Introduction	24
2.2	Consumer perception development	26
2.3	Consumer behaviour	27
2.3.1	Group factors	31
2.3.2	Individual factors	32
2.3.3	Consumer decision-making	34
2.4	Consumer learning	38
2.4.1	Behavioural theory	40
2.4.2	Cognitive theory	42
2.5	Consumer perception	47
2.5.1	Step 1: selection	52
2.5.2	Step 2: organisation	56
2.5.3	Step 3: interpretation	58
2.6	Conclusion	59
<b>CHAPTER 3: SENSORY MARKETING</b>	<b>61</b>	
3.1	Introduction	61
3.2	Senses influencing perceptions	63
3.3	The nature of the senses	67



3.3.1	Smell	68
3.3.2	Taste	70
3.3.3	Sight	71
3.3.4	Hear	72
3.3.5	Feel	73
3.4	Emotional attachment	75
3.5	Sensory marketing	79
3.5.1	Sensory brand elements	86
3.5.2	Sensory marketing programs	88
3.5.2.1	Personalisation	90
3.5.2.2	Integration	93
3.5.2.3	Internalisation	94
3.5.3	Sensory brand associations	95
3.6	Sensory science	100
3.7	Conclusion	105
<b>CHAPTER 4: RESEARCH METHODOLOGY</b>		<b>107</b>
4.1	Introduction	107
4.2	Marketing research	108
4.3	Marketing research process	109
	Step1: identifying the research problem or opportunity	111
4.3.1		111
4.3.2	Step 2: create a research design	114
4.3.3	Step 3: choose the research method	115
4.3.3.1	Survey	115
4.3.3.2	Observation	116
4.3.3.3	Experiment	117
4.3.4	Step 4: select sample procedure	129
4.3.4.1	Sample frame	131
4.3.4.2	Sampling method	131
4.3.4.3	Sample size	132
4.3.5	Step 5: collect data	134
4.3.6	Step 6: analyse data	135
4.3.6.1	Descriptive statistics	136
4.3.6.2	Inferential statistics	136
4.3.6.3	The effect of the senses on the perception of a brand	138
4.3.6.4	Reliability and validity	141
4.3.7	Step 7: present report	147
4.3.8	Step 8: follow up	147
4.4	Conclusion	147

<b>CHAPTER 5: RESEARCH RESULTS</b>	<b>148</b>
5.1	Introduction 148
5.2	Profile of the sample 148
5.2.1	Demographic profile 149
5.2.1.1	Gender composition of respondents 150
5.2.1.2	Average age of respondents 150
5.2.1.3	Race distribution of respondents 151
5.2.1.4	Level of education of respondents 152
5.2.2	Spirit consumer profile 153
5.2.2.1	Spirit consumption category 154
5.2.2.2	Brands consumed 157
5.2.2.3	Frequency of consumption 159
5.2.2.4	Units consumed 160
5.2.3	Perception measurement 162
5.3	Effect of the senses on perception 164
5.3.1	Main effects 165
5.3.2	Two-way interactions 166
5.3.3	Three-way interactions 167
5.4	Conclusion 168
<b>CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS</b>	<b>169</b>
6.1	Introduction 169
6.2	Conclusions 169
6.2.1	Demographic profile and preference of alcohol spirits 171
6.2.2	Consumption profile 172
6.2.3	Perception measurement 174
6.2.3.1	Main effects 176
6.2.3.2	Two-way interactions 177
6.2.3.3	Three-way interactions 177
6.3	Recommendations for marketers 178
6.3.1	Main effects 180
6.3.2	Two-way interactions 182
6.3.3	Three-way interactions 183
6.4	Reconciliation of objectives 185
6.5	Areas for future studies 186
6.6	Conclusion 188
<b>BIBLIOGRAPHY</b>	<b>190</b>
<b>ANNEXURE A</b>	<b>206</b>

## LIST OF FIGURES

Figure 2.1	Consumer perception development	26
Figure 2.2	The consumer behavioural model	30
Figure 2.3	Consumer learning	39
Figure 2.4	Consumer cognitive learning	43
Figure 2.5	Information processing and memory control	43
Figure 2.6	Consumer learning and consumer perception development	47
Figure 2.7	The perceptual process in consumer perception development	48
Figure 2.8	Perceptual process	50
Figure 2.9	Sensitivity to stimuli	54
Figure 3.1	Senses influencing perceptions	64
Figure 3.2	Outcome of the perceptual process	65
Figure 3.3	The direct experience spectrum	77
Figure 3.4	The brand-building process	84
Figure 3.5	Sensory marketing tools	86
Figure 3.6	Brand image development process	96
Figure 3.7	Sensory analysis perceptual interpretation	101
Figure 3.8	The perceptual interpretation model	102
Figure 4.1	The marketing research process	110
Figure 4.2	Summary of hypotheses	113
Figure 4.3	Primary research classification	115
Figure 4.4	Classification of survey methods	116
Figure 4.5	Classification of observational methods	117
Figure 4.6	Classification of experimental methods	118
Figure 5.1	Gender composition of respondents	150
Figure 5.2	Percentage of respondents in each age group	151
Figure 5.3	Race distribution	152
Figure 5.4	Level of education	152
Figure 5.5	Number of respondents in each spirits category	155
Figure 5.6	Drinking session	159
Figure 5.7	Classification of spirit consumption	160

## LIST OF TABLES

Table 4.1	Factorial design for sensory experiment	120
Table 4.2	Sample of hedonic scale	125
Table 4.3	Sample of this study	133
Table 4.4	Validity for this study	146
Table 5.1	Comparison of males and females regarding spirits type	151
Table 5.2	Cross tabulation of gender and spirits type	156
Table 5.3	Brands consumed	158
Table 5.4	Difference between number of units consumed and drinking sessions	162
Table 5.5	Descriptive information on perception	163
Table 5.6	Analysis of variance results	165

# INTRODUCTION TO THE STUDY

---

## 1.1 INTRODUCTION

This chapter addresses several elements. Firstly, a background sketch to the study is provided. This is followed by a discussion of the formulation of the problem. Thirdly, the objectives of the study, as well as the research methodology, are presented. The chapter concludes with an orientation towards the main components of the study.

## 1.2 BACKGROUND

Marketing can be described as a business function that facilitates the process of exchange between buyers and sellers by:

- examining the needs and wants of consumers;
- developing a product or service that satisfies these needs;
- offering it at an appropriate price;
- making it available at a particular place or through a channel of distribution; and
- developing a programme of communication to create awareness and interest (Belch and Belch, 2007:8).

Marketers use brands for products or services in the exchange process between buyers and sellers. According to Farquer (in Orth, McDaniel, Shellhammer and Lopetcharat, 2004:99), the difference between a 'product' and a 'brand' is that a product offers a functional benefit, while a brand is a name, symbol, design or mark that enhances the value of a product beyond its functional value. According to Gagnon and Chu (2005:17), it has become challenging for marketers to build brands, due to the vast number of competitor brands and the increasing number of brand messages from advertisers, who create noise for consumers. A large variety of brands are available and a brand would need to be differentiated in order to be distinguished from other competitor brands (Du Plessis, Jooste and Strydom, 2001:193). According to Low and Lamb (2000:217), the success of a brand depends partly on the ability of consumers' to distinguish one brand from another. The challenge therefore lies in the increased number of brands all aiming for differentiation through being communicated to consumers.

Consumers desire advertisement-free entertainment, yet the largest portion of marketing budgets are normally spent on advertisements (Lindstrom, 2005a:84). Through this disproportionate spend on advertising campaigns, effectiveness may have been reduced with consumers no longer being susceptible to sensory stimulation (Weisman, 2003:1). Consumers are thus bombarded with advertising messages and stimuli from the environment, and alternative means for brands to communicate with consumers should be identified, in order to break through the clutter (North and Enslin, 2004:152). In other words, brand communication should use different methods to stimulate consumer senses.

Brand communication is explained in the commencement of the marketing concept. The marketing concept states that the starting point in the presentation and development of products is with consumer needs (Du Plessis and Rousseau, 1999:7). The American Marketing Association (1985) defines the marketing concept as 'the process of planning and executing the conception, pricing, promotion and distribution of ideas and goods and services to create exchanges that satisfy individual and organisational objectives' (Bharadwaj, 2009:1). The marketing concept therefore includes a well-defined market that focuses on consumer needs, coordinates all the activities that will affect consumers (including social and environmental affairs), and optimises long-term profits by satisfying consumers (Kotler 2003:20) (see section 2.3). This concept argues that the consumer should be at the centre of strategising and implementing business, marketing and communication plans (Van der Walt, Strydom, Marx and Jooste, 1996:21).

Marketers attempt to influence a consumer's perception with the aim of gaining acceptance of a particular brand, and thereby facilitate product sales. An alternative means of influencing consumer perceptions (North and Enslin, 2004:152) is through brand messages that are sensorially stimulating with colours, sounds and smells (Sheth, Mittal and Newman, 1999:344). Brands which stimulate the senses are easily noticeable, and therefore stand out from the background noise and competing products (Gagnon and Chu, 2005:152). Brands are therefore differentiated from competitors in order to be noticed by consumers, through vast amounts of media exposure (Mooy and Robben, 2002:432).

Marketers aiming to satisfy consumer needs, and thereby build brands, can do so by stimulating the senses. Brand communication, involving multiple senses, can influence consumer perceptions (Shaffie, 2008:4). The more senses a brand appeals to, the stronger the perception of a brand (Lindstrom, 2005a:86). Hence, this study is aimed at the investigation of the effect of the senses on the perception of a brand.

Since the consumer is the focus of brand communication in the marketing concept, it is important to understand consumer needs and how brands are perceived in the fulfilment of these needs, through studying consumer behaviour (Van Trijp, 2008:1). As this study is focussed on the effect of the senses on the perception of a brand, the nature of the senses in consumer behaviour and decision making will be investigated. Below is a discussion on consumer learning and perception, followed by branding and the senses.

### **1.2.1 CONSUMER PERCEPTION AND LEARNING**

Consumer learning is the process by which consumers acquire consumptive knowledge, and it is the experience that is required for consumers to form perceptions that will influence future brand decisions (Thiangtam, 2007:1). A consumer's previous brand experiences (or learning), in addition to new brand information, will therefore influence perceptions and brand decisions. In other words, consumers learn information about brands, resulting in the formation of brand perceptions that will ultimately determine purchase decisions. A marketer therefore needs to give consumers information about a brand to get



them to finally buy the brand. Brand information includes information on brand attributes and potential benefits, and should thereby motivate consumers to prefer a specific brand in a purchase situation (Mooy and Robben, 2002:432). Consumer learning should therefore influence consumer brand decisions and enable consumers to differentiate between brands from competitive offerings, based on brand attributes and potential benefits. Informing consumers about a brand is done by way of marketing activities that are based on direct communication through mediums such as advertisements, product appearance, packaging, price and distribution channels (Schiffman and Kanuk, 2004:206). Consumer learning can therefore use marketing activities, which involve sensory stimulation, as an alternative means to informing consumers through brand communication.

Consumer learning ultimately influences consumer perceptions. Perceptions are created through a consumer's previous brand experiences, as well as through new information that is received via the senses. With regard to a brand, the objective reality of a product often carries lesser weight, in comparison to a consumer's perception of a brand (Sheth *et al.*, 1999:298). Perception is defined as the process by which an individual selects, organises and interprets stimuli through the five senses (sight, sound, smell, touch and taste). In other words, perception is the way consumers interpret and give meaning to the world surrounding them (Cant, Brink and Brijball, 2002:99). This study was aimed at the investigation of the effect of the senses on the perception of a brand. The senses, as the receptors of information from the environment, will be discussed next.

## 1.2.2 THE SENSES

Perceptions are formed, based upon information that is received from the environment through the five senses: sight, touch, smell, feel and taste (Tollington, 1998:181). The senses are the receptors of information from the environment, and are directly linked to memory and emotions (Nissim, 2005:1). A consumer's entire understanding of the world is defined through their senses, which is directly linked to their emotions, "The more senses you appeal to, the stronger the message" (Lindstrom, 2005a:86). In a brand building situation, the message from the brand, as the sender, is any form of brand communication which is received by the consumer, as the receiver. According to Thomson, MacInnes and Park (2005:75) the more positive the synergy between the senses is, the stronger the connection between sender and receiver.

The connection between a brand, as the message sender, and a consumer, as the receiver, is important in brand-purchase decisions. A brand purchase is made on a brand decision, which is based on a consumer's brand perception. As mentioned earlier, a consumer's perception of a brand can be based on the variety of stimulated senses, and the association a consumer makes with the brand. A positive perception is created by a positive connection between the sender (brand) and the receiver (consumer), and this will influence the brand decision. In other words, the brand stimuli received via the senses provide the basis for connections, and ultimately, brand perceptions (Schiffman and Kanuk, 2004:188). Marketers may therefore involve most or all

of the senses in marketing programmes, in order to build stronger connections and emotional bonds with consumers (Enquist, 2006:4).

As highlighted previously, alternative means for brands to communicate with consumers are necessary, as the market is cluttered with competing brands and many media options. One of the alternative methods for brands to communicate with consumers is through sensory stimulation. Lindstrom (2005a:88) notes that the senses - smell, touch, taste, audio and visual - are often more powerful than traditional advertising channels, but they are also under-utilised (Murphy, 2005:2). Traditional advertising only stimulates the senses that a specific advertising medium appeals to, i.e. radio stimulates sound, and television stimulates sight and sound (North and Enslin, 2004:152). Sensory stimulation, on the other hand, is the intentional incorporation of stimulating more senses through direct brand experiences (see section 3.4). As a result, consumers are intrigued by brands that intensely stimulate their senses (James, 2005:14). For the purposes of this study, the process of intentionally involving the senses in marketing programmes is referred to as sensory marketing. Sensory marketing involves brand-building experiences, which could appeal to consumers' senses and their perceptions of brands (Enquist, 2006:4).

Sensory marketing is the involvement of multiple senses in brand communication. Sensory marketing is a form of brand building which, firstly, aims to create awareness, and finally, to influence consumer behaviour (Oswald, 2007:1). Brands are created through a wide range of touch points, and when consumers interact with a brand, they form perceptions or change

perceptions (Ray, 2004:189). Sensory brand communication therefore involves sensorially-stimulating brand information, which is consistent across all brand touch points, and is in line with the brand's positioning (Schiffman and Kanuk, 2004:199). Sensory brand communication is part of marketing and, sensory marketing therefore involves a number of sensory features in brand-building tools, namely, brand elements, marketing programs and secondary brand associations (see section 3.5). Sensory marketing therefore means that there are more sensory features in brand-building tools, such as brand elements, marketing programs and sensory brand associations:

- Sensory brand elements are the intentional involvement of sensory factors by which a brand communicates, and those sensory trademarkable devices that serve to identify and differentiate a brand.
- A sensory marketing programme is the involvement of the senses (such as smell, sound and sight) in direct marketing campaigns.
- Sensory brand associations consist of informational nodes that are experienced through sensory brand features. The aims of sensory brand associations are to evoke brand memories in purchase decisions.

### **1.3 REASON FOR THE STUDY**

As mentioned, consumers are overwhelmed by various types of advertising messages, and alternative means for brand communication should be identified to break through the clutter. Alternative methods for brands to communicate with consumers can differentiate and build brands. Building brands are about building perceptions through emotional ties with consumers and brands (Thomson *et al.*, 2006:77). Consumers form emotional ties

through sensory experiences, and the senses are directly linked to emotions (Nissim, 2005:1). One can thus conclude that marketers aiming to build brands can do so by creating emotional bonds through involving a number of the senses. In response to this statement, the purpose of this study was to investigate whether multiple stimulated senses, by the brand, influenced perceptions.

When applying the concept of incorporating multiple senses in brand communication and the brand-building process, it is believed that consumer emotional connections can be established (Nissim, 2005:1). Emotions influence brand perceptions (Thomson *et al.*, 2006:77). One can therefore conclude that consumer senses, which influence emotions, can influence brand perceptions (Nissim, 2005:1). The more senses the brand appeals to, the stronger the emotional bond (Lindstrom, 2005a:86). As a result of this strong emotional bond, consumers are prepared to be loyal and pay higher costs for certain brands (Frost, 2006:1).

Marketers can therefore involve the senses in brand-building to break through the advertising clutter. Involving multiple senses in brand communication can create stronger emotional attachments, and this notion was defined as sensory marketing (see chapter 3). Sensory marketing can elicit favourable brand associations, by way of stimuli conveying the right associations via the senses (Gilson and LaLond, 2005:3). A sensory brand experience therefore activates connections in a consumer's mind to other associations (ideas and feelings), and although these connections are not always conscious, they may influence the consumer's brand perceptions (Clifton and Simmons, 2003:133).

Sensory marketing is a form of marketing communication which, firstly, aims to create awareness, and secondly, to influence consumer behaviour via the various sensory channels connected to the brain (Oswald, 2007:1).

Taking the above into consideration, the primary objective of the study was to investigate whether or not the senses have an effect on perceptions. In order to focus the research and to provide information to Distell, a leading distributor of spirits in South Africa (Snyman, 2008:1), it was decided to concentrate on alcohol, more specifically, brandy. A premium brand of brandy, Flight of the Fish Eagle (Fish Eagle), was used in the study (Snyman, 2008:1). Premium-priced brands carry higher risk for consumers in their financial output, and more senses are typically involved in gathering information in the brand decision-making process (Snoj *et al.*, 2004:157). Fish Eagle has distinctive intrinsic brand associations (Snyman, 2008:1) and the premium price is justified by sensorially stimulating brand information (Thompson, 2008:1).

In aim of investigating the effect of the senses on perception, the senses involved in the experimental research of this study will be now defined. Fish Eagle is a consumable product and consumers experience the brand through the sense of taste. Taste is used in sensory studies to measure consumer perceptions (Muller, 2008:1). Taste was thus a dependant variable in investigating consumer perceptions.

According Schiffman and Kanuk (2004:199), consumer perceptions of brands are based on brand information of brand intrinsics (colour, flavour and aroma) and, or extrinsics (price, store image, brand image and service environment).

Brand perceptions could be measured by either, extrinsic- and intrinsic associations (see section 3.5). There is a wide range of elements involved with extrinsic associations, for example packaging which could stimulate sight and touch. The packaging of Fish Eagle includes a pouring device, embossed glass, labels and a tamper proof aluminium closure (Thompson, 2008:1). When measuring perceptions, any of these elements that stimulate the sense of touch or sight could possibly influence perceptions (van Trijp, 2008:1). These packaging elements would therefore need to be separated to determine which element influenced perception. Many previous research studies have focused on extrinsic associations (Van Kleef, van Trijp and Lining, 2003:390; Lindstrom, 2005:86a); and this study would therefore investigate the effect of senses of a brand, by focussing on the intrinsic associations. Research shows that perception is affected by intrinsic associations of brands, and that perception has a positive and significant influence on consumers' buying intentions (Fandos and Flavian, 2006:656).

Brand intrinsics on the other hand focus on the product that is consumed. Some intrinsic brand associations of Fish Eagle include a honey aroma, a pouring sound and a light brandy colour (Thompson, 2008:1). In attempt to focus the research, only these intrinsic brand associations were used in this study (Van Trijp, 2008:1). The senses of sight, sound and smell, as independent variables, were stimulated by enhancing the intrinsic brand associations of Fish Eagle (Snyman, 2008:1). Some intrinsic associations such as the honey smell form part of the products aroma profile. In attempt to stimulate the sense on smell, this particular honey aroma needed to be enhanced through honey scented references (Muller, 2008:1) (see section

3.5). As mentioned touch is stimulated by extrinsic brand associations and it was therefore not included in the experiment. For the purposes of this research experiment, the senses will therefore refer to sight, smell and sound.

### **1.3.1 FORMULATION OF THE PROBLEM**

Against the background of the challenge marketers face in influencing consumer perception, with increasing media options and technology, this study attempted to assess the effect of the senses on the perception of a brand. From the above it is clear that brand building is about building perceptions through emotional ties with the consumer and the brand (Thomson *et al.*, 2006:77). As mentioned previously, the senses are directly linked to emotions (Nissim, 2005:1). One may thus conclude that senses may have an effect on perceptions.

The perception of a brand is reflected by the brand association held in a consumer's memory (Hsieh and Lindridge, 2005:15). The right brand associations are elicited through stimuli which are fed through the senses, thus building these perceptions (Lindstrom, 2005a:87). It is therefore concluded that the perception of a brand can be impacted by the senses. The reason for undertaking this study was to measure the effect of the senses on the perception of a brand.

In order to focus the research and to provide information to a leading distributor of spirits in South Africa, it was decided to concentrate on alcohol, more specifically, brandy. A premium brand of brandy, Fish Eagle, was used



in the study (see chapter 4). Inferences about this study therefore relate to alcohol spirits, more specifically, premium brandy.

As discussed, premium brands demand sensory stimulation amongst other means, to gather brand information for brand decision making. Despite the information gathering process required by premium brands, brands need alternative brand communication strategies to break through media clutter and technology options to influence consumer perception (see section 3.1). One way of influencing consumer perception is by involving the senses in brand communication. In an attempt to influence perceptions, marketers of alcohol spirit brands could thus stimulate the senses through brand communication. An empirical study of an experimental nature, and a 2 x 2 x 2 factorial design was used to assess the effect of the different senses on the perceptions of Fish Eagle brandy.

## **1.4 OBJECTIVES OF THE STUDY**

The main objective of this study was to investigate the effect of the senses on the perception of a brand. The following research question was therefore put forward: do stimulated senses effect the perception of a brand? The secondary objectives of the study were to assess whether or not (1) only enhanced smell effects consumer perception; (2) only sound effects consumer perception; (3) only sight effects consumer perception; (4) enhanced smell and sound effect consumer perception; (5) sight and enhanced smell effect consumer perception; (6) sound and sight effect perception; (7) sight, enhanced smell and sound effect consumer perception.

## **1.5 RESEARCH METHOD**

In order to achieve the objectives of the study, secondary research was conducted, followed by primary research.

### **1.5.1 SECONDARY RESEARCH**

Secondary research was performed to gain an initial understanding of a subject, before testing the hypotheses through primary research (Struwig and Stead, 2001:19). The advantage of secondary information is that it provides necessary background information on the particular problem or research study at hand (McDaniel and Gates, 2001:85).

The secondary research was conducted by performing exploratory research. The underlying theory of this study, which stems from the marketing concept, is consumer perceptions. Exploratory research included an investigation of consumer behaviour (see chapter 2), particularly consumer learning and perceptions, as well as sensory marketing (see chapter 3). Sensory marketing proves to be a relatively new field of investigation and information was not as readily available as information on consumer learning and perceptions. The foundation of sensory research is in the sensory science discipline, and reliable and valid measures, which can be applied to consumer sensory research, do exist (Lawless and Heymann, 1998:363). Sensory science, from the food science discipline, has reliable and valid measures to test intrinsic

product attributes (Muller, 2008:2) (see section 3.6). These constructs were used as background information for the primary research in this study.

### **1.5.2 PRIMARY RESEARCH**

Primary sources of information are those that have originated directly as a result of a particular problem under investigation (McDaniel and Gates, 2001:25). The primary research of this study was undertaken in an endeavour to achieve the main objective of the study, namely, to measure the effect of the senses on the perception of a brand. Fish Eagle brandy has many sensory attributes (Snyman, 2008:1), and was therefore used in this study. The sensory attributes, relevant to this brandy, include sight, sound and smell (see section 1.3). This study therefore attempted to assess the effect that certain senses namely, sight, sound and smell, alone and in combination, can have on consumer perceptions (see chapter 5).

Perception is the way in which consumers interpret and give meaning to brands (Cant *et al.*, 2002:99). In other words, perceptual interpretation occurs when a consumer forms a 'ruling' as to whether or not an object is liked or disliked (Schiffman and Kanuk, 2004:199). The perception of a brand is based on a consumer's judgement of a variety of stimuli that are associated with a brand, in terms of intrinsic attributes and extrinsic attributes, such as packaging and cost (Imram, 1999:2005). Sensory research may therefore focus on one or more of the product attributes (intrinsic, extrinsic or price). For the purpose of demonstrating the effects of senses on the perception of a

brand, an experiment was conducted by focusing on the intrinsic product attributes (see section 3.6).

Consumers form perceptions upon experiencing the functional properties of a brand (Muller, 2008:1). The functional properties of the brand (Fish Eagle) used in this study are intended for physical consumption, or for the use of intrinsic enjoyment. The evaluation of a consumable product is performed through taste as one of the senses (Lawless and Heymann, 1998:363). In other words, the perception of a consumable brand is measured through taste. In this study, taste as a sense (based on brand intrinsic attributes) was used as a common denominator for the measurement of perception (Muller, 2008:1). Taste was thus the dependent variable, in conjunction with the sensory stimuli, sight, sound and smell, as independent variables (see section 4.3.3.3).

As mentioned, the perception of a brand is based on a consumer's judgement of a variety of stimuli that are associated with a brand. The stimuli relevant to this research were: the visibility of the brandy colour, the sound of brandy pouring and an enhanced honey aroma. As mentioned, feel was not included in the study due to the intrinsic attributes of the brand. Feeling, as a sense, is experienced through touch and it confirms the presence of whatever information it is that is being received. Although feeling as a sense was excluded from the stimulated senses in this study, it contributes to the overall evaluation of the brandy in terms of taste. Taste evaluates the texture of consumable products by way of mouth feel (Muller, 2008:1). As mentioned earlier, sensory attributes relating to the intrinsics of the brandy were used in

this study. Although feel contributed to the evaluation of taste, it is not explicitly stimulated through the intrinsic attributes (Snyman, 2008:1).

In attempt to measure the effect of senses on the perception of a brand, research was conducted among alcohol spirit consumers in the Western Cape by means of an experiment (see chapter 5). An empirical experiment with a 2 x 2 x 2 factorial design was conducted in a sensory laboratory at Distell, Stellenbosch. Distell uses the sensory laboratory for sensory research and development in the production process of wine and spirits (Schmidt, 2008:1).

In the sensory laboratory respondents were exposed to different types of stimuli in experiments, and were then prompted to evaluate the brandy sample by means of a taste test. Experiments were conducted with stimulated senses by incorporating the following treatments (see section 4.3.3.3):

- *Sight*. Sight was controlled, on the one hand, by making the colour of the brandy appear colourless with the use of a red light. On the other hand, the original colour of brandy was visible in normal light conditions.
- *Enhanced smell*. Here, the sense of smell was enhanced by a honey scent or normal aroma, with no added scent, as a stimulus. The factor of smell is therefore enhanced, either through a honey aroma sniff sample, as a reference, or with no aroma. The honey reference sample was therefore used to smell, prior to tasting and evaluating the brandy.
- *Sound*. The sense of sound was manipulated with the sound of pouring liquor into a glass and with no pouring sound. The pouring is used for aural stimulation. Sound, as a factor, was performed either through

exposing respondents to the pouring sound, prior to evaluating the brandy, or with no sound.

The three factors, smell, sight and sound, of this study formed a three factorial design (see table 4.1). Each factor had two levels, therefore a 2 x 2 x 2 factorial design. The variations of the three factors (or senses) were as follows:

- Enhanced smell (enhanced honey aroma, no aroma);
- Sight (red light with no visible brandy colour, normal light with visible brandy colour);
- Sound (pouring sound, no pouring sound).

Since the purpose of this study was to determine whether the senses have an effect on the perception in the case of a brandy, each variable (i.e. the sum of the three identified senses, as well as each individual sense) needed to be assessed (Klemz, 2008:1) (see section 4.3.3.3). To determine whether or not the senses influence the perception of a brand, a factorial experimental design, where variables are manipulated to evaluate any possible change in consumer behaviour, was applied (Zikmund, 2006: 281). Certain senses were manipulated in these experiments in order to measure the influence of stimulated senses on the perception (in this case taste) of a brand.

The experiments were judged by a consumer's response to the taste samples by a self-administered questionnaire. The purpose of the questionnaire was to measure a respondent's perception (i.e. taste) of the brandy samples, in terms

of degree of like or dislike, and the sensory attributes thereof. Perception that is measured through taste is done by way of a degree-of-liking scale (Van Trijp, 2008:1); the most common degree-of-liking scale is the nine-point hedonic scale (Lawless and Heymann, 1998:363). The Hedonic scale is mostly used in consumer sensory testing and was proven to be reliable and valid (Muller, 2008:1) (see section 4.3.3.3). Respondents were thus prompted to indicate which term best described their perception towards the samples which were in front of them, using the scale with the following nine categories: like extremely, like very much, like moderately, like slightly, neither like nor dislike, dislike slightly, dislike moderately, dislike very much, dislike extremely.

Various experiments were therefore conducted to achieve the secondary objectives, which were to assess whether or not (1) only enhanced smell effects consumer perception; (2) only sound effects consumer perception; (3) only sight effects consumer perception; (4) enhanced smell and sound effect consumer perception; (5) sight and enhanced smell effect consumer perception; (6) sound and sight effect perception; (7) sight, enhanced smell and sound effect consumer perception.

#### **1.5.2.1 POPULATION OF THE STUDY**

A population can be defined as the total group of persons or a universal collection of items to which the study relates (Steyn, Smit, Du Toit and Strasheim, 1999:16). In this study, the population constituted of alcohol spirit consumers, older than 18 years, in South Africa (see section 4.3.4).

### **1.5.2.2 SAMPLING METHOD**

Since the population of the study was large, only a sample of the population was investigated (see section 5.2). According to Kerlinger (1986:110), sampling is taking any portion of the population or universe as representative of that population or universe. To obtain a sample, a convenience sampling method was used due to the unavailability of a sample frame (Diamantopoulos and Schlegelmilch, 2002:95). Available alcohol spirit consumers in the Western Cape participated in the study.

In order to determine the sample size, the Bayesian approach to sample size determination was used. This approach provides a formal procedure for selecting the sample size, which maximises the difference between the expected payoff of sample information and the estimated cost of sampling (Malhorta, 1999:360). Using this approach, a sample of 240 alcohol spirit consumers, from the Western Cape, was drawn. Sampling is discussed in detail in chapter 4. The demographics of the sample (i.e. race, gender and education) were similar to that of previous research performed in South Africa (see section 5.2.1). The realised sample in this study was appropriate for assessing whether or not the senses have an effect on the perception of a brand.

### **1.5.2.3 DATA GATHERING**

Data was gathered by means of a questionnaire by trained fieldworkers in a laboratory. The questionnaire was pilot tested amongst 25 respondents, and



revised where applicable. The primary data was then gathered by conducting a factorial experiment, using the structured questionnaire. Fieldworkers were briefed before the study commenced and controlled throughout the data-gathering process.

#### **1.5.2.4 DATA PROCESSING**

The data obtained during this study was processed by means of the SPSS programme. The data was coded, edited and cleaned, and is presented in this study by means of frequency tables, cross-tabulation and graphs. Significant tests (chi-square and ANOVA) were used to test for significant differences between variables (the research results are discussed in detail in chapter 5).

## **1.6 ORIENTATION OF THE STUDY**

The orientation of the study is as follows:

### **CHAPTER 1 INTRODUCTION**

This chapter introduces the topic of the study, identifies the problem and the objectives, and discusses the methodology of the research.

### **CHAPTER 2 CONSUMER PERCEPTION AND LEARNING**

The chapter commences with an overview of the marketing concept, from which the topic of consumer behaviour is derived. Consumer

learning and consumer perception, as part of the consumer behavioural theory, is investigated. This chapter finally discusses the senses as a means of consumer learning.

### **CHAPTER 3 SENSORY MARKETING**

Chapter 3 deals with a definition of sensory marketing. It commences with an overview of consumer senses. This is followed by sensory marketing, which is derived from the concept of involving multiple senses in brand-building tools. The chapter closes with analyses of sensory science, as applied to the food industry, and as a basis for the research experiment.

### **CHAPTER 4 RESEARCH METHOD**

This chapter covers the research design process, specifically focussing on the population, sampling, data-gathering and data-processing, as applied in this study.

### **CHAPTER 5 RESEARCH RESULTS**

The findings of the empirical research are presented in chapter 5. These findings refer to the realised sample, and the effect of multiple senses on the perception of brandy.

## **CHAPTER 6 CONCLUSION AND RECOMMENDATIONS**

Chapter 6 concludes the study, and areas for future research are identified.

## CONSUMER LEARNING AND PERCEPTION

---

### 2.1 INTRODUCTION

The marketing concept states that the starting point in the presentation of products is with consumer's needs (Du Plessis and Rousseau, 1999:7). Marketers aim to appeal to consumer needs in order to generate brand acceptance, and ultimately facilitate product sales. Consumer needs are appealed to by communicating brand messages through mediums, such as packaging, billboards, radio and television. With an increase in brand messages from advertisers and media noise for consumers, the task of influencing consumer perceptions and brand acceptance has become more complex (Gagnon and Chu, 2005:17). The dilemma is that the media options, available for traditional brand communication, are over-utilised, and as a result, are less effective (North and Enslin, 2004:152). A large number and variety of brands are available, and a consumer needs a reason to accept a particular brand (Mooy and Robben, 2002:432). In addition to the various ways of communicating brand messages, the market place has become cluttered as a result of improved technology and an increase in the number of brands. The cluttered market place puts consumers in challenging positions, in that all the brand communication from different advertisers has to be processed. As a result, brands are challenged through the use of alternative

means of brand communication when consumers experience an overflow of information (North and Enslin, 2004:152).

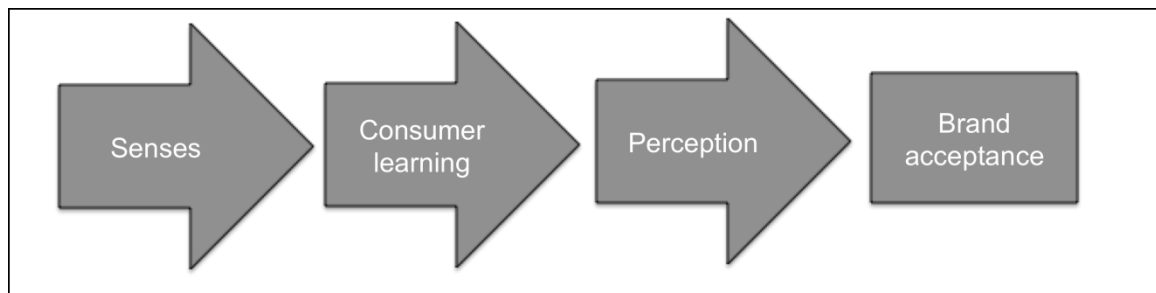
Consumers learn to cope with an increased number of brand messages by either ignoring or adding personal meaning to external information. Personal meaning is attached to brand messages, based on a consumer's learned experiences, biases and desires. A consumer's learning of experiences, biases and desires will develop a perception of the brand, and will finally get a reaction from the consumer of either acceptance or rejection. Marketers therefore attempt to influence a consumer's perception with the aim of attaining acceptance of a particular brand, and ultimately, facilitate product sales. An alternative means of influencing consumer perceptions (North and Enslin, 2004:152), is through brand messages that are sensorially stimulating with colours, sounds and smells (Lindstrom, 2005:20).

One may conclude that senses, amongst other factors, could influence consumer perceptions to facilitate product sales. This study is aimed at the investigation of the effect of the senses on the perception of a brand, and this chapter will focus on consumer perceptions by outlining, firstly, the consumer perception development process. This is followed by the nature of consumer behaviour. Thirdly, the methods of influencing consumer behaviour, and the consumer decision-making process, are discussed. Consumer learning follows this. Finally, this chapter concludes with the consumer perception process.

## 2.2 CONSUMER PERCEPTION DEVELOPMENT

Marketers aim to influence consumer perceptions to influence consumers in the acceptance of a particular brand, and ultimately, facilitate product sales. Perceptions are formed from external information that is received from the environment through the consumer's senses (Cant *et al.*, 2002:99). This process is illustrated in figure 2.1.

**Figure 2.1 Consumer perception development**



Source: Adapted from Sheth *et al.*, (1999:298).

As depicted in figure 2.1, consumers form perceptions from information that is received through their senses. There is a method of learning in which the consumer processes the information that is received through the senses, and the perception is created by the consumer's personal meaning that is attached to the information, and finally, a brand decision is made. A favourable perception of a brand could lead to a decision of brand acceptance, and finally, product sales. Perceptions therefore determine brand decisions. One can therefore conclude that marketers can influence perceptions, amongst other factors, to facilitate product sales. In order to influence consumer perception, marketers need to understand how consumers sense external information, how this information is interpreted (learning) and given personal

meaning (perception). The following sections will address consumer learning and perceptions, within the context of consumer behaviour.

## **2.3 CONSUMER BEHAVIOUR**

As mentioned in the introduction, the marketing concept is the starting point in the presentation of products for consumers' needs (Du Plessis and Rousseau, 1999:7). According to Kotler (1997), the marketing concept holds that the key to achieving organisational goals consists of being more effective than competitors in integrating marketing activities toward determining and satisfying the needs and wants of target markets (Gunay, 2001:126). The marketing concept starts with a well-defined market, focuses on consumer needs, coordinates all the activities that will influence consumer perception, and optimises long-term profits by way of consumer satisfaction (Kotler 2003:20). The marketing concept is therefore based on four pillars; market focus, consumer orientation, coordinated marketing and profitability (Gunay, 2001:126).

Further to the widely accepted notion of the marketing concept there is a societal element included (Bharadwaj, 2009:1). As well as the philosophy of marketing, Kotler (1997) stresses its social side: "Marketing is a social and managerial process by which individuals and groups obtain what they need or want through creating, offering, and exchanging products of value with others" (Gunay, 2001:126). Societal marketing aims at satisfying consumer needs without harming the environment (Bharadwaj, 2009:1). Most importantly, the consumer should be at the centre of strategising and implementing business,

and marketing and communication plans (Van der Walt, Strydom, Marx and Jooste, 1996:21). According to Cravens and Piercy (2003:6), this indicates that all marketing actions should be aimed at satisfying consumer needs, demands and preferences.

The widespread adoption of the marketing concept by American businesses, from the 1950's, provided the momentum for the study of the consumer behaviour concept (Kotler, 2003:20). In order to identify unsatisfied consumer needs, companies had to engage in extensive marketing research, and in doing so, they discovered that consumers were highly complex individuals, subject to a variety of psychological and social needs (Schiffman and Kanuk, 2007:6). Consumer behaviour therefore studies psychological and social needs, demands and the preferences of consumers.

Consumer behaviour is defined as the behavioural pattern of consumers which precede, determine and follow the decision-making process for the acquisition of need-satisfying products, ideas and services (Du Plessis and Rousseau, 1999:11). Marketers aim to meet unsatisfied consumer needs with suitable products, ideas or services. Products, ideas and services may have added value for consumers, despite product functionality, and are then individually referred to as brands (Keller, 2003:3). Keller (2003:3) defines a brand as a name, term, symbol or a combination of all three, intended to identify the goods and services of one seller or a group of sellers.

At this point, differentiation should be made between the concepts 'product' and 'brand' for the purposes of this study. The difference between a product



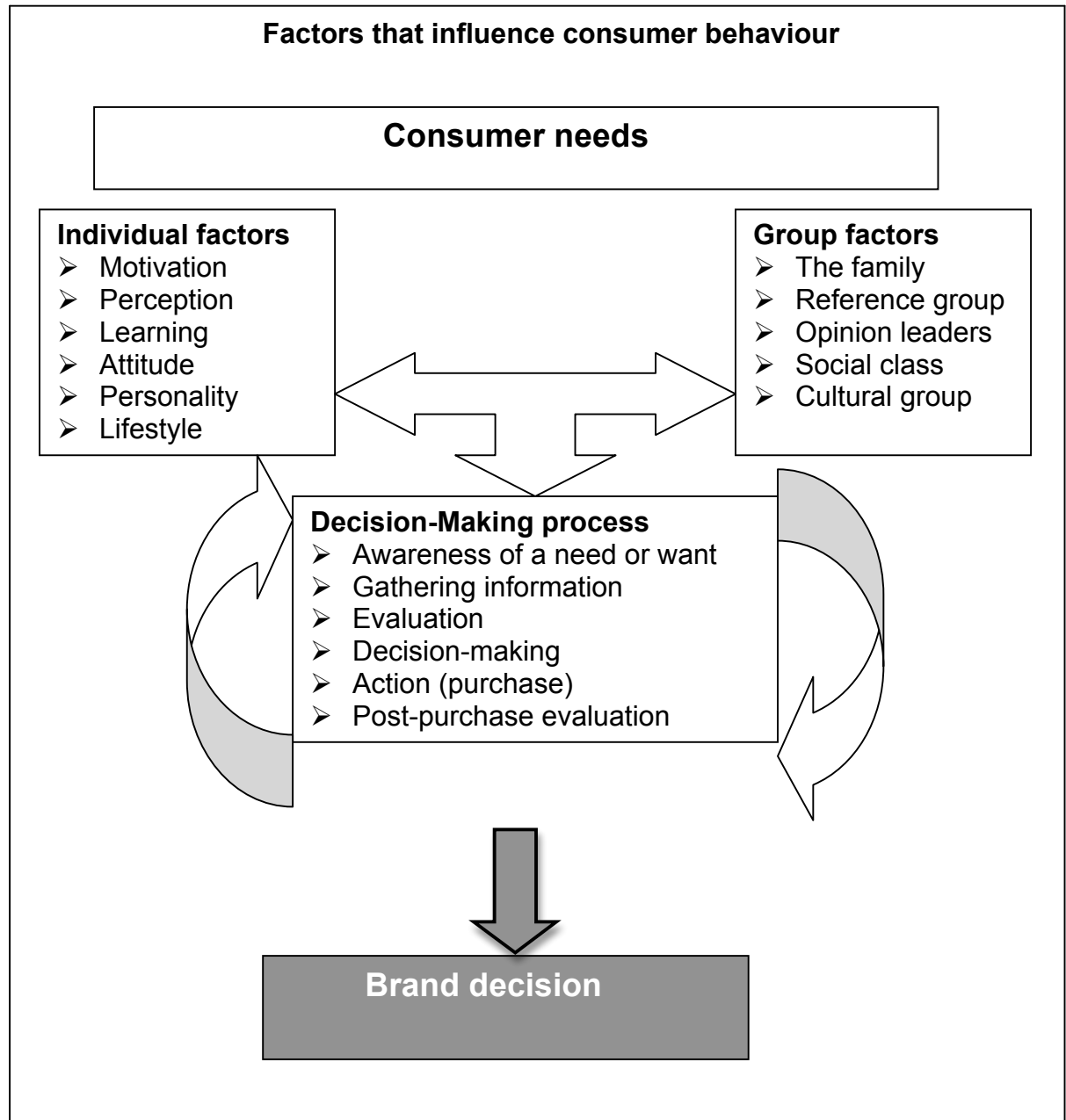
and a brand is that a product is something that offers a functional benefit, while a brand enhances the value of a product beyond its functional value (Orth *et al.*, 2004:99). The perceived value attributed to a product is attained by way of the trust that consumers gain in a brand to deliver or meet their needs. Marketers therefore aim to influence perceptions in order to gain consumer trust. These added values differentiate the offering and provide the basis for consumer preferences and loyalty towards the brand (Knox, 2004:50). Consumers can therefore choose between products of a similar nature that are differentiated by their brand names.

Consumers follow a decision-making process to choose a brand in a buying situation. Certain behavioural factors will influence the consumer's choice and decision-making process (Van der Walt *et al.*, 1999:91). The consumer's behavioural factors and decision-making process are analysed in the consumer behavioural model, as depicted in figure 2.2 on the next page.

The consumer behavioural model is based on the principle that brands can satisfy consumer needs within a purchase or consumption situation (Schiffman and Kanuk, 2004:9). As depicted in figure 2.2, the consumer behavioural model, which leads to a brand decision, is divided into two parts. Firstly, there are factors that influence consumer behaviour, namely, individual and group factors, and secondly, the consumer decision-making process. The outcome of the consumer behavioural model is the brand decision which refers to the purchase or consumption of a brand. The brand decision may either be accepted or rejected, based on the factors that influence the decision-making process. The following sections will discuss individual and

group factors that influence consumer behaviour, followed by consumer decision-making.

**Figure 2.2 The consumer behavioural model**



**Source:** Adapted from Van der Walt *et al.*, (1996:91); Schiffman and Kanuk (2004:9).

### **2.3.1 GROUP FACTORS**

As depicted in figure 2.2, factors that influence consumer behaviour are divided into group and individual factors. Group factors are people of influence who serve as frames of reference for consumers in their brand decisions, which is to purchase or consume a specific brand (Schiffman and Kanuk, 2004:365). These reference groups assist consumers in forming perceptions and define their values in brand decision-making, and consist of family, reference groups, opinion leaders, social class and cultural groups (see figure 2.2). A change in any one or a combination of the group factors will influence the consumer's consumption behaviours, and ultimately, the brand decision (Clifton and Simmons, 2004:35). Group factors, amongst others, may influence brand decisions by serving either as references or as benchmarks. Reference groups, which influence the consumer's general or broadly-defined values and behaviours, are known as normative reference groups. For instance, the immediate family serves as a normative reference for a child (Escalas and Bettman, 2003:341). Comparative reference groups, on the other hand, serve as benchmarks for specific or narrowly-defined attitudes or behaviour (Watson, Viney and Schomaker, 2002:397). For example, a neighbour whose standard of living appears to be commendable and worthy of replication, will be able to influence a consumer's brand decision, which in turn defines the consumers attitude.

### **2.3.2 INDIVIDUAL FACTORS**

Individual factors are just some of the factors that influence consumer behaviour (see figure 2.2). Individual factors are the basic psychological concepts that account for individual behaviour, and influence individual consumer buying and consumption-related behaviour. The influence of the individual factors will impact the consumer's brand decision, which is to accept or reject the purchase or consumption of the brand. The individual factors that could influence the brand decision (see figure 2.2) consist of motivation, perception, attitude, personality, lifestyle and consumer learning. All the individual factors (see figure 2.2) are determined or influenced by the consumer's ability to learn (Watson *et al.*, 2002:396).

Consumer learning is the process by which consumers acquire brand knowledge, and it is the experience required for future consumer behaviour (Thiangtam, 2007:1). In other words, consumer learning becomes the consumer's memory of a brand that will influence their brand decision. Consumers learn about brands by attaching personal meaning to brand messages, based on learned experiences (O'Cass and Grace, 2004:256). A consumer's personal meaning is therefore learned from experiences by selecting, organising and interpreting information or messages from brands. The consumer's personal meaning creates a perception of the brand, and finally influences the brand decision. Consumer learning therefore contributes to the perception of a brand, which will determine the ultimate brand decision. Perception is also part of the individual factors that influence the brand-purchasing decision (see figure 2.2).

According to Sheth *et al.*, (1999:298), consumer perceptions are formed from brand information that is received via the senses and past learning. In other words, perceptions are formed as consumers learn information about the brand, which is received via senses. For the purpose of this study, brand information that is received via the senses is described as stimuli. Perception is therefore defined as the process by which an individual selects, organises and interprets stimuli through the five senses: sight, sound, smell, touch and taste (Tollington, 1998:181). When considering brand perceptions, brand stimuli are received by consumers via the senses which are stimulated to form a perception of the brand. To summarise, a consumer's perception is thus determined by sensory stimulation.

As mentioned previously, perceptions are formed from information that is received from the environment through the five senses. Senses are the receptors of information from the environment that are directly linked to memory, which can influence the brand perception (Nissim, 2005:1). The stimuli that are received, via the senses, provide the basis for perceptions (Schiffman and Kanuk, 2004:188). Lindstrom (2005:96) suggests that positive synergy between the senses creates favourable perceptions of brands. Marketers could therefore use the senses as a means of influencing consumer perceptions. This study is aimed at investigating the effect of the senses on the perception of a brand. The purpose of influencing consumer perceptions is to get consumers to accept a brand in their favour. Consumer decision-making (see figure 2.2) will be discussed next.

### 2.3.3 CONSUMER DECISION-MAKING

As illustrated in figure 2.2, the consumer decision-making process is part of consumer behaviour. Consumer decision-making is the behavioural pattern of consumers in a brand purchase or consumption situation, in order to meet unfulfilled needs (Du Plessis and Rousseau, 1999:11). In an attempt to meet consumer needs in profit-producing ways, marketers require an understanding of the consumer decision-making process. The consumer decision-making process (see figure 2.2) starts with consumers becoming aware of their needs, gathering information, evaluating, deciding, acting and lastly, post-purchase evaluation (Watson *et al.*, 2002:396). The stages in the consumer decision-making process (see figure 2.2) are described as follows:

- *Stage 1: Awareness of a need or want*

Consumers have a variety of needs and wants. Needs are based on unfulfilled physical conditions and include basic needs (food, rest and sex), the need for safety, the need for relationships with other people (friendship), and personal satisfaction needs (Cravens and Piercy, 2003:123). There are also needs based on physiological or social needs (Sheth *et al.*, 1999:41). Marketers aim to satisfy these physical, physiological or social needs and wants in profit-producing ways with brands. Products will satisfy basic consumer needs, however well-positioned; distinctive brands are required to fulfil the consumer's wants (Cant *et al.*, 2002:219). Consumer needs and wants, in relation to this study, are considered in the context of satisfaction by brands. As

depicted in figure 2.2, once a consumer is aware of a need or want, he or she will undertake an information search (Yeoh, 2005:166).

- *Stage 2: Gathering information*

Consumers require information about brands, prior to evaluating them for decision-making purposes. Information gathering may be internal (as illustrated in figure 2.2), such as a memory of a previous experience, external in the form of advertisements, or in the form of influential groups like family or friends (Watson *et al.*, 2002:396). The type of brand purchase or consumption decision will require a certain amount of time spent acquiring information. A regular purchase with little or low perceived risk will not undergo an extensive information search, as opposed to a purchase that is perceived to be of high value. Premium-priced brands carry higher risk for consumers in their financial output, and more time is typically spent in gathering information in the brand decision-making process (Snoj *et al.*, 2004:157).

- *Stage 3: Evaluation*

Information is evaluated for decision-making purposes. For premium-priced brands, the same theory of consumer involvement in the form of time, applies to the evaluation stage as it does in the gathering of information stage. A premium brand will therefore require a greater amount of time spent in evaluating information to arrive at a decision about the brand.

- *Stage 4: Decision-making*

Once information is gathered and evaluated, consumers can make a purchase or consumption decision. The purchase or consumption decision is based on price, convenience, service and environmental factors (Watson *et al.*, 2002:396). As mentioned earlier, premium brands require a more involved consumer decision-making process, and this study therefore focuses on a premium brand with the aim of investigating the effect of the senses on the perception of a brand.

- *Stage 5: Action*

At this stage, a consumer physically makes the purchase or consumes the brand in question. The consumer decision-making process does not end after the consumption or purchase of a brand. Instead, the consumer continues to evaluate the brand psychologically in order to meet their needs and wants.

- *Stage 6: Post-purchase evaluation*

Post-purchase evaluation is the final step in the consumer decision-making process, and a key measure in accepting or rejecting the brand. This stage evaluates a brand's ability to satisfy a consumer's physical and social needs, as well as their psychological wants (Van der Walt *et al.*, 1996:91). Consumers need to justify their decision to purchase or consume a brand, and a positive outcome will therefore result in acceptance of a brand. Repeat purchases and consumption are more likely where a consumer is satisfied with the performance of a purchased brand (Watson *et al.*, 2002:398).



The consumer decision-making process, outlined above, will vary in complexity according to the nature of the decision being made. As illustrated in figure 2.2, various complexities exist, such as competitor brands, media clutter and other brand factors that can influence individual or group factors (Lawer and Knox, 2006:122). Brand factors that can influence the level of consumer decision-making include technical features (such as motorcar specifications) and price (Sethuraman and Cole, 1999:341). High-priced brands involve increased risk for consumers in their financial output, and more time is typically spent making a brand decision (Snoj *et al.*, 2004:157). Consumers would need to justify their reasons for paying more for a specific brand that is priced higher in relation to competitor brands. For example, a consumer will spend more time in the purchase of a 25 year-old rare brandy, than what they would on a lower-priced three year-old brandy. The technical specifications and the price therefore affect the level of involvement in the consumer decision-making process (Watson *et al.*, 2002:396). One can therefore conclude that premium-priced brands will typically incorporate a more involved consumer decision-making process (Sethuraman and Cole, 1999:350). This study focused on a premium alcoholic spirit brand, in the aim of investigating the effect of influencing consumer perceptions. Consumer brand perceptions are influenced through consumer learning, which is brand information that is received through the consumer's senses. The consumer learning process is therefore discussed next.

## **2.4 CONSUMER LEARNING**

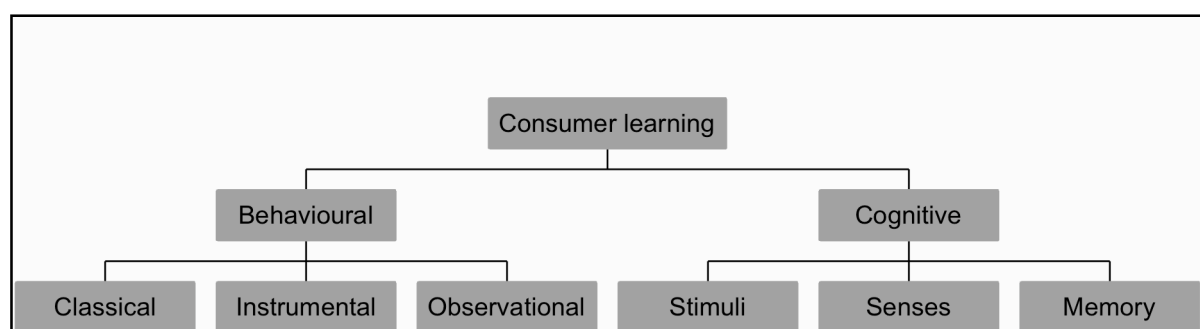
The marketing principle aims to address consumer needs in profit-producing methods. As discussed, the study of consumer behaviour focuses on the consumer's psychological and social needs (Alreck and Settle, 1999:131). Consumers learn whether or not these needs are addressed through brand information, such as attributes and benefits (O'Cass and Grace, 2004:258). Consumers learn of a brand's attributes and benefits through their experiences with a brand, and from the marketing activities that communicate through advertisements, product appearance, packaging, price and distribution channels (Schiffman and Kanuk, 2004: 206). Consumer learning therefore provides brand information that will inform consumers of whether or not their perceived or physical needs have been met. One can therefore conclude that marketers use consumer learning to address consumer needs by influencing brand perceptions, which in turn can produce profits through brand purchases.

Consumer learning is described as the process of how brand information is acquired through experiences with a brand, for brand decision-making (Lawer and Knox, 2006:125). As mentioned earlier, consumer behaviour studies the consumer brand decision-making process and the factors influencing these decisions. Consumer learning can influence consumer decision-making. As depicted in figure 2.2, consumer learning forms part of the individual factors of the consumer behavioural model. Although consumer learning is part of the individual behavioural factors, individual factors may also be influenced by consumer learning. In other words, individual factors such as perception,

needs, motivation and attitudes can be determined or impacted by a consumer's ability to learn. In addition to individual behavioural factors, group factors (such as family, culture, social class and reference groups) also influence consumers as they learn and experience brands in different contexts and situations (Cant *et al.*, 2002:108). One can therefore conclude that a brand decision is dependant on a consumer's ability to learn.

According to Thiangtam (2007:1), there are two theories that explain how consumers learn, namely, the behavioural theory and the cognitive theory. The behavioural theory is learning by observable responses to stimuli, whereas cognitive learning is a function of mental processing (Yeoh, 2005:176). Behavioural learning is a passive form of consumer learning, where brand communication is mostly observed by the consumer on a subconscious level. On the other hand, cognitive learning is a more active form of the consumer learning process, where brand communication is received and then processed mentally. These constructs are depicted in figure 2.3 and are explained in turn.

**Figure 2.3 Consumer learning**



Source: Adapted from Thiangtam (2007:1).

## 2.4.1 BEHAVIOURAL THEORY

The behavioural theory is the behavioural aspect of consumer learning. Consumer behavioural learning is achieved as observable responses to brand stimuli, where stimuli are received via the senses on a subconscious level in order to form perceptions (Alreck and Settle, 1999:131). This means that consumers do not actively seek brand information to form perceptions; instead, they are reminded repeatedly of the brand in order to build positive perceptions. The aim of behavioural learning is that the brand must be reminiscent to consumers, in order to positively influence brand perceptions that can lead to brand purchases or consumption. As depicted in figure 2.3, there are different principles of behavioural learning, such as classical conditioning, instrumental conditioning and observational learning (Thiangtam, 2007:1):

- *Classical conditioning* provides theoretical foundations for marketing applications, and includes repetition, stimuli generalisation and stimuli discrimination (Simmons, 2007:1). Classical conditioning is a behavioural form of consumer learning that occurs by way of stimuli, in the form of an association with the brand that will evoke memories of the brand. Marketers build positive brand associations which are often repeated to reinforce memories of the brand. Classical conditioning emphasises brand stimuli, like positive (brand) associations and not the brand itself (Chen, 2001:443). Classical conditioning is therefore the repetition of stimuli associated with the brand, with the aim of conditioning consumers to memorise the brand. For example, a jingle

associated with a brand will remind consumers of the brand every time the jingle is heard. The more the jingle is repeated, the more the consumer is reminded of the brand. Repetitively reminding the consumer of the brand may have a positive influence on the perceptions of the brand, and therefore lead to brand purchase or consumption (Alreck and Settle, 1999:131).

- *Instrumental learning* occurs on a trial-and-error basis in which consumers learn to perform behaviours that produce positive outcomes, and to avoid those that yield negative ones (Cant *et al.*, 2002:111). In other words, by reinforcement or rewards, consumers can be made to learn a behaviour (Sheth *et al.*, 1999:315). The best examples of instrumental learning are the frequent-flyer programmes that accumulate mileage towards future free flights.
- *Observational learning*, also known as modelling, is a process by which individuals observe the behaviour of others, remember it, and imitate it (Schiffman and Kanuk, 2004:224). In a similar way that children learn much of their social behaviour from elders, consumers learn from role models who they admire and believe are experts. Consumers therefore imitate the behaviour of those who they see are rewarded, and accordingly expect to be rewarded when adopting that same behaviour (Sheth *et al.*, 1999:315). Marketers can harness this learning mechanism by sending products to role models (Thomson *et al.*, 2005:78).

The above-mentioned behavioural theories of consumer learning takes place passively as a result of repeated trials and behaviours. In contrast to the

behavioural theories, the cognitive theory approaches the importance of learning through consumers' internal mental-processing of information. Cognitive learning therefore takes place as a result of consumers actively thinking and problem-solving (Cant *et al.*, 2002:112). Instead of stressing the importance of repetition or the association of a reward, cognitive theorists stress the role of motivation and mental processes in producing a desired response. The cognitive theory of consumer learning is discussed next.

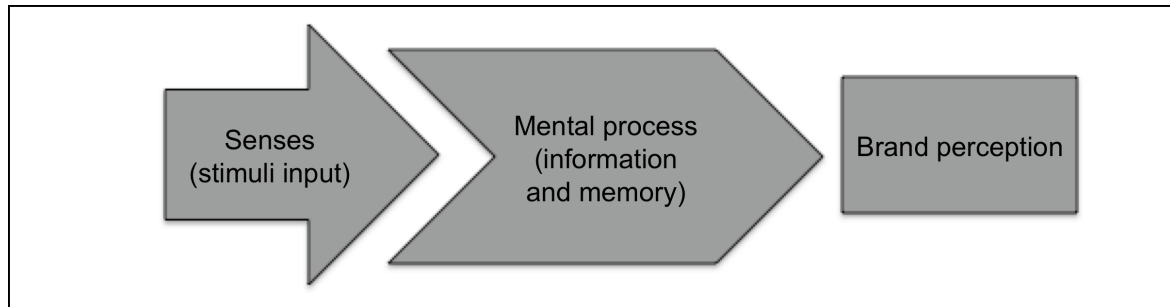
### **2.4.2 COGNITIVE THEORY**

The cognitive theory views consumers as problem solvers, who actively use information from the world around them to master their environment (Schiffman and Kanuk, 2004:226). In a marketing context, consumers use brand information (stimuli) to form a perception, and ultimately, address their (consumer) needs. Brand information is received via the senses in the form of stimuli, and this information is processed mentally to form a brand perception. Information received via senses therefore influence perceptions. This study is aimed at investigating the effect of senses on the perception of a brand. In order to understand how senses influence perceptions, it is necessary to understand the method in which brand information is processed as part of the cognitive theory of consumer learning.

The cognitive learning theory is described as brand stimuli that are received by consumers through their senses, and this information is processed mentally in the aim of forming a brand perception (Keller, 2005:285). As illustrated in figure 2.4, the consumer cognitive learning process is modelled

as stimuli that are received via the senses, and processed mentally to form a perception of a brand.

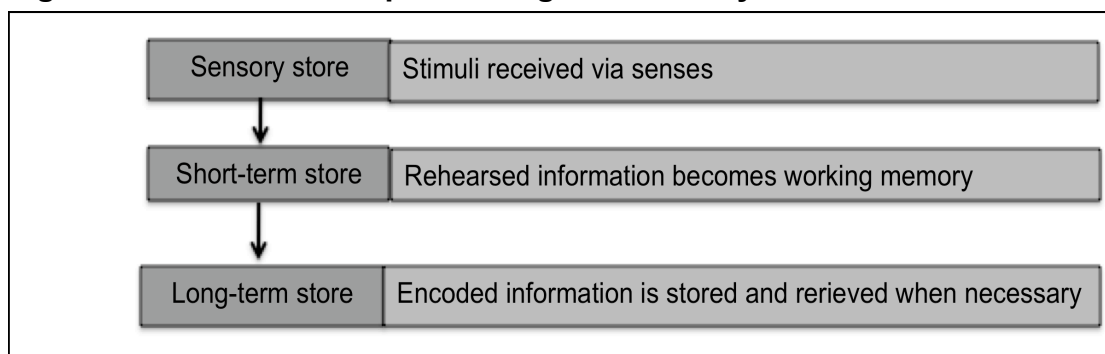
**Figure 2.4 Consumer cognitive learning**



**Source:** Adapted from Sheth *et al.*, (1999:298); Schiffman and Kanuk (2004:228).

As depicted in figure 2.4, cognitive learning comprises of stimuli which are received via the senses, and are processed mentally to form a perception of a brand. The mental process consists of existing consumer brand knowledge and beliefs, in the form of memory, as well as new information or stimuli (Yeoh, 2003:180). The mental process in the consumer cognitive model is described as information processing and memory control, and is illustrated in figure 2.5.

**Figure 2.5 Information processing and memory control**



**Source:** Adapted from Schiffman and Kanuk (2004:228).

The cognitive consumer learning process, as depicted in figure 2.5, illustrates the three stages in the information processing and memory control model. Cognitive consumer learning consists of stimuli that are processed mentally to form brand perceptions. Information processing and memory control depend on consumers' own cognitive abilities, which is their existing knowledge and beliefs about brands (Hsieh and Lindridge, 2005:15). In conjunction with consumers' own cognitive abilities, the mental process also depends on the complexity of the information to be processed (Ghosh, Chakraborty and Ghosh, 1995:14). A consumer's cognitive ability and the complexity of information are pertinent in all three phases of information processing and memory control. The phases in the information processing and memory control model (see figure 2.5) are the sensory store, short-term store and long-term store (Schiffman and Kanuk, 2004:228); each of these stages will now be explained:

- *Sensory store*. The first mental phase in information processing is the sensory store. Information that is received in the sensory store is either processed immediately, or is lost (Grannel, 2007:1). Any form of stimulus such as sound, taste, aroma, colour or shape, which consumers are exposed to, is received in the sensory store. These fragmented pieces of information are transmitted to the brain in parallel, where the information is synchronised and perceived as a single image within a single moment in time (Schiffman and Kanuk, 2004:228). The image that is formed from the stimuli lasts a few seconds in the sensory store (Bong-Na, Marshall and Keller, 1999:170). The brain orders these images with a value, either positive or negative, and the values last until



more information is received (Imram, 1999:225). Information in the sensory store that is not processed promptly, can get lost in less than thirty seconds (Grannel, 2007:1). Once information is processed in the sensory store, it is possible to be transferred to the short-term store as an image.

- *Short-term store.* The second phase of information processing is the short-term store. Information from the sensory store is transferred to the short-term store for further processing. A mere four or five images are stored in the short-term store at any given time. Once images are in the short term store, further processing is needed to progress to the next phase, the long-term memory (Romaniuk and Nenycz-Thiel, 2007:1). Information in the short-term store is processed by rehearsal, which can be silent repetition, or by association (Martin, Le Nguyen and Wi, 2002:44). The rehearsal process in the short-term stage occurs at the speed of between two to ten seconds; an image that is not rehearsed in this timeframe will be forgotten or lost. Images rehearsed in the short-term store can then be processed in the long-term store (Romaniuk and Nenycz-Thiel, 2007:1).
- *Long-term store.* Images from short-term memory can be processed further, reaching the long-term store as the final phase in information processing and memory control. Visual images or words in short-term memory are encoded with supplementary associations to reach the long-term store. Marketers facilitate the encoding process by providing associations for images through symbols, icons, jingles and other brand elements (Gilson and LaLonde, 2005:95). To illustrate the associations of visual images with brands, the iconic tiger in Kellogg's 'Frosted

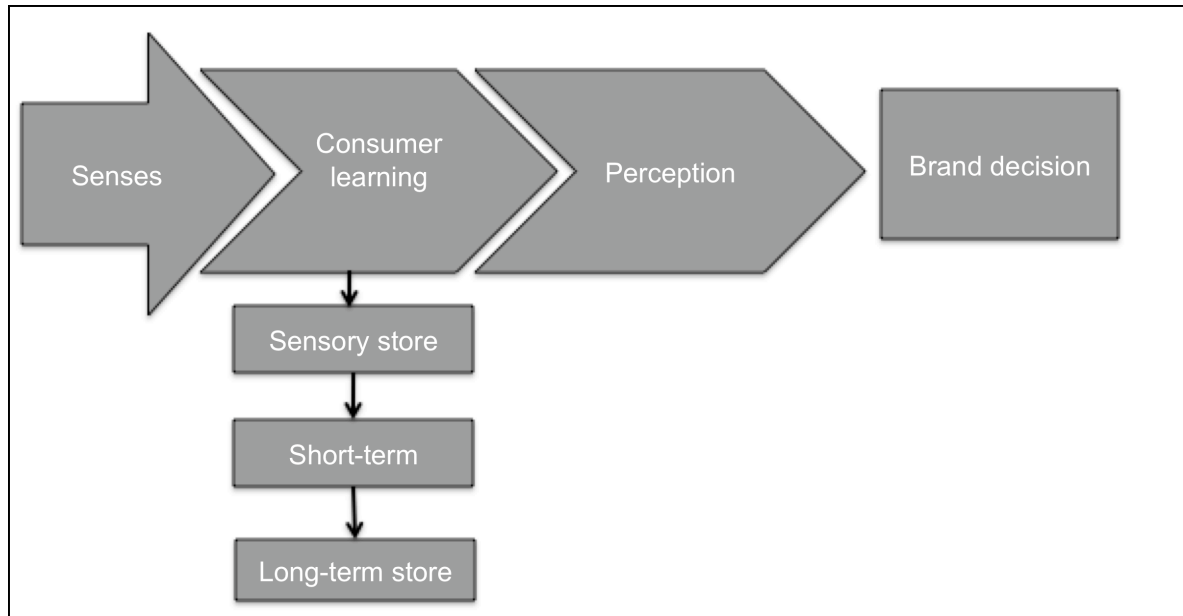
Flakes', for example, encodes the brand and thereby becomes memorable in consumers' long-term memory stores. Information in the long-term store is constantly reorganised, as more brand information is collected. This information is retrieved, when necessary, to form perceptions and make brand decisions (Thomson, MacInnes and Park, 2005:79).

In summarising, the consumer cognitive learning process focuses on stimuli that are received via consumers' senses, and the method in which information is processed and memory is controlled. As stated previously, consumers process brand information via the senses, from which they will develop a brand perception, and finally, impact on the brand decision (Sheth *et al.*, 1999:298). For the purposes of this study, consumer learning refers to the cognitive learning theory (see figure 2.3), due to the involvement of the senses in this theory. This study is aimed at the investigation of the effect of the senses on brand perception. Consumer learning therefore contributes to consumers' perceptions of brands, which can determine brand decisions (see figure 2.1). Consumer cognitive learning as a part of consumer perception development is depicted in figure 2.6 on the next page.

The phases in the information processing and memory control model (see figure 2.5) form part of consumer perception development. As depicted in figure 2.6, perceptions of brands will influence consumer brand decisions. In order to develop a brand perception, consumers learn by interpreting and giving meaning to brand information that is received via the senses (see figure

2.6). Consumer learning, with the emphasis on the cognitive learning theory, was discussed, and the next section will focus on consumer perception.

**Figure 2.6 Consumer learning in consumer perception development**



Source: Adapted from Sheth *et al.*, (1999:298).

## 2.5 CONSUMER PERCEPTION

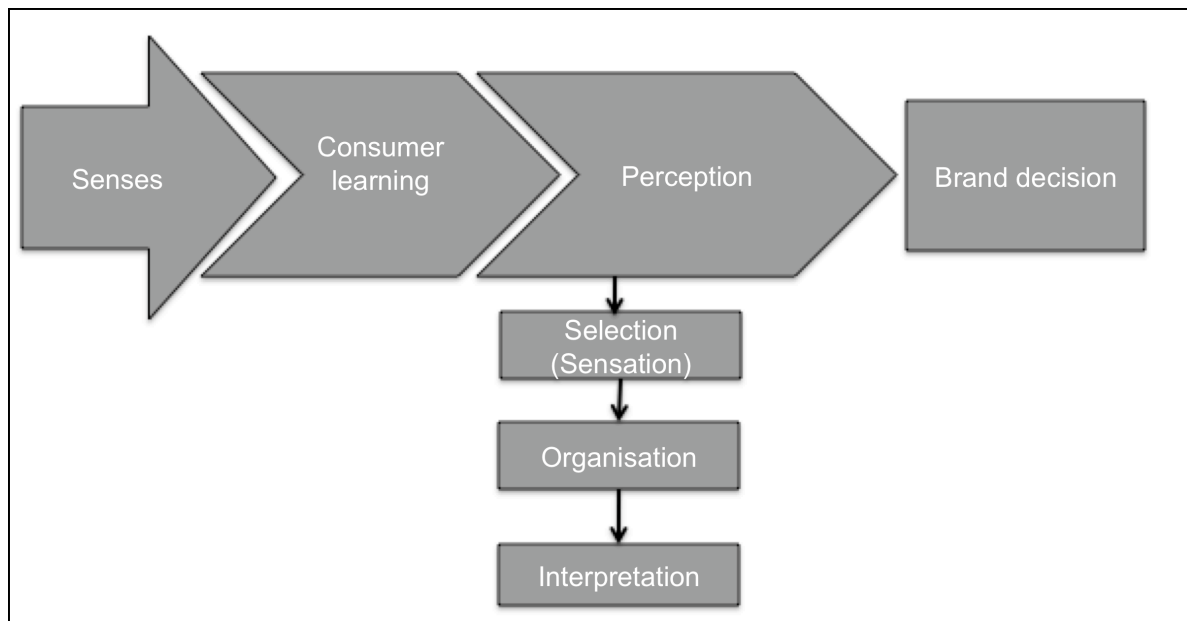
Perception is defined as the process by which individuals select, organise and interpret stimuli through their five senses: sight, sound, smell, touch and taste. In other words, perception is the means through which consumers interpret and give meaning to the world around them (Cant *et al.*, 2002:99). As depicted in figure 2.6, brand decision-making is dependant on a consumer's perception, where a consumer undergoes a learning process in the aim of forming brand perceptions. Brand perceptions are therefore formed as consumers learn of brand information that is received via the senses. According to Thomson *et al.*, (2006:77), in marketing, perceptions are very often more important than reality. In other words, the objective reality of a

product often carries lesser weight, in comparison to a consumer's perception of a brand (Sheth *et al.*, 1999:298).

As stated earlier, brand perceptions are formed as consumers learn of brand information that is received via the senses. Perceptions are formed by consumers learning brand information (see section 2.4) through the receiving of stimuli. As mentioned earlier, stimuli in this definition are known as brand information contributors, and examples of stimuli in this study include products, packages, brand names and advertisements (Schiffman and Kanuk, 2004:159). Perception is thus a process of paying attention to stimuli, processing stimuli (see figure 2.5), and finally, interpreting brand information to make a brand decision. The process of perception can therefore be described as selecting stimuli, organising stimuli by way of processing, and then interpreting its meaning in order to respond to it. The perceptual process of selecting, organising and interpreting stimuli is part of brand perception development (see figure 2.1).

As mentioned already, consumers are exposed to vast amounts of stimuli and are therefore selective in the processing thereof. Consumers choose to receive brand information via the senses, which is organised and processed through consumer learning, and a perception is then formed in order to make a brand decision (Kent, 2003:132). The perceptual process, as part of the brand perception development process, is illustrated in figure 2.7.

**Figure 2.7 The perceptual process in consumer perception development**



Source: Adapted from Sheth, *et al.*, (1999:298).

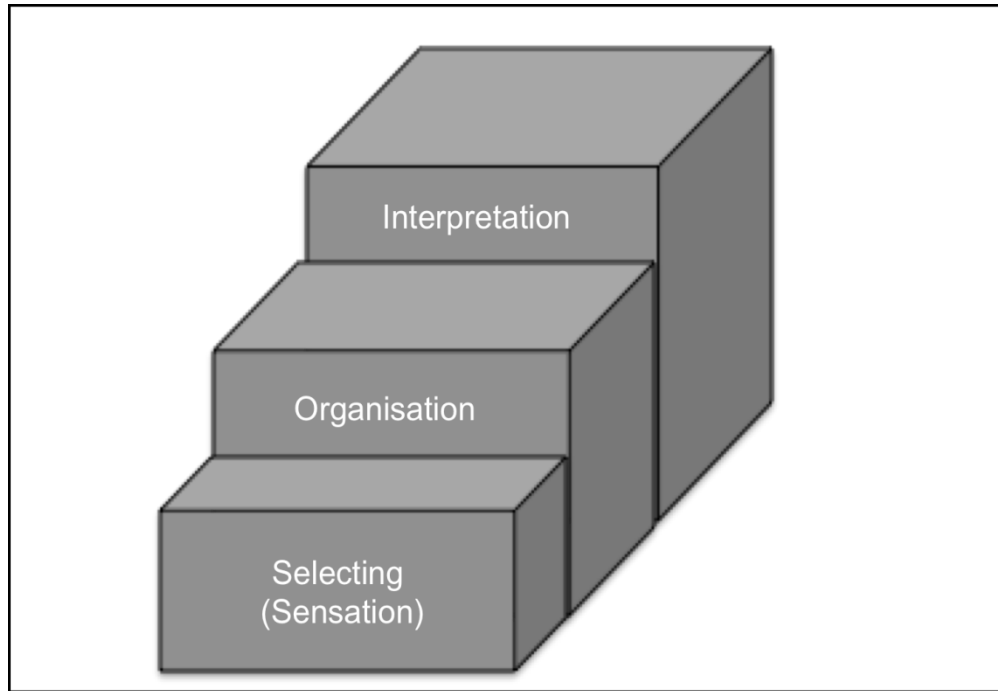
This study was aimed at investigating the effect of senses on the perception of a brand. The perceptual process, illustrated in figure 2.7, is an integral part of this study. The perceptual process is the method with which consumers select, organise and interpret stimuli from the environment in order to form a representation of the world. With regards to brands, consumers receive stimuli through their senses: hear, smell, sight, taste and touch, and then process the stimuli to form a perception of a brand. The stimuli that consumers receive via the various senses are fragmented pieces of information, and the perceptual process joins these pieces of information to form a perception (Zaltman, 2003:3). Stimuli do not explain the coherent picture of the world that most consumers possess independently, instead, stimuli characteristics, context and consumer features are all factors that will influence the perceptual process (Sheth *et al.*, 1999:300). Three factors influence the perceptual process:

- *Stimuli characteristics.* The nature of information from the environment (from objects, brands, stores, marketers or friends).
- *Context.* The setting in which information is received. The setting can be social, cultural or organisational.
- *Consumer characteristics.* These include personal knowledge and experiences, as well as consumer expertise on relevant topics and prior experience with similar stimuli.

Consumers' perceptions are thus formed from brand information that is received from the environment through consumers' senses, and several factors that can influence the perceptual process do exist. To influence consumer perception in order to lead to acceptance of a brand, marketers need to consider the factors that can influence perceptions and the perceptual process (figure 2.7). The perceptual process involves selecting and organising stimuli, and then interpreting the meaning thereof in order to respond accordingly (Sheth *et al.*, 1999:299). This process is illustrated as building blocks in figure 2.8 on the next page.

The perceptual process, illustrated in figure 2.8, consists of three building blocks, namely, selection, followed by organisation, and lastly, interpretation (Sheth *et al.*, 1999:299). Stimuli are, firstly, experienced as sensations, then organised, and finally, interpreted by consumers to form a perception of a brand (Enquist, 2007:28).

**Figure 2.8 Perceptual process**



**Source:** Adapted from Sheth *et al.*, (1999: 299).

Stimuli, at any one of these steps, are processed according to the characteristics of stimuli. Stimuli characteristics comprise of both sensory and information features, and both are necessary to influence the perceptual process (Zaltman, 2003:5). Therefore, in order to influence brand acceptance (see figure 2.7), marketers need to understand the characteristics of stimuli in the perceptual process (see figure 2.8). The two types of stimuli characteristics are described as follows:

- *Sensory characteristics.* These characteristics stimulate any of the five senses (Schiffman and Kanuk, 2004:159). Strong characteristics like bright colours, loud noises and strong aromas attract more attention, and are more easily perceived than weak sensory characteristics (Sheth *et al.*, 1999:300).

- *Information characteristics.* Once the sensory characteristics are determined, it is important to provide the consumer with relevant information to form a perception. Informative content moves the consumer beyond sensation and towards organisation, and later to interpretation (Sheth *et al.*, 1999:300).

As stated, the perceptual process commences with consumers selecting stimuli via the senses, which are then interpreted and given personal meaning. As depicted in figure 2.8, the first step in influencing brand perceptions is through consumer senses. In order to influence consumer perception that will lead to an acceptable brand decision, marketers need to understand the perceptual process. In order to describe the perceptual process, each of the steps in figure 2.8 will now be discussed.

### **2.5.1 STEP 1: SELECTION**

Perceptions are formed by way of stimuli that are received from the environment through the senses: sight, touch, smell, sound and taste (Tollington, 1998:181). As illustrated in figure 2.8, the first step of the perceptual process is the selection of stimuli. Consumers are exposed to a multitude of stimuli from brands, and to many forms of environmental factors. Consumers select stimuli from the environment, based on brand communication such as advertising, packages and brand names, as well as consumer needs and wants (Schiffman and Kanuk, 2004:199). Consumers either seek stimuli that they need or want, or they block the perception of



unwanted stimuli. As mentioned earlier, consumers are exposed to a multitude of stimuli from brands and environmental factors, and it is a challenge for marketers to have noticeable brand stimuli. Marketers should therefore aim to understand consumer needs and wants in order to communicate information that consumers would willingly receive, and in doing so, sensitising consumers to stimuli.

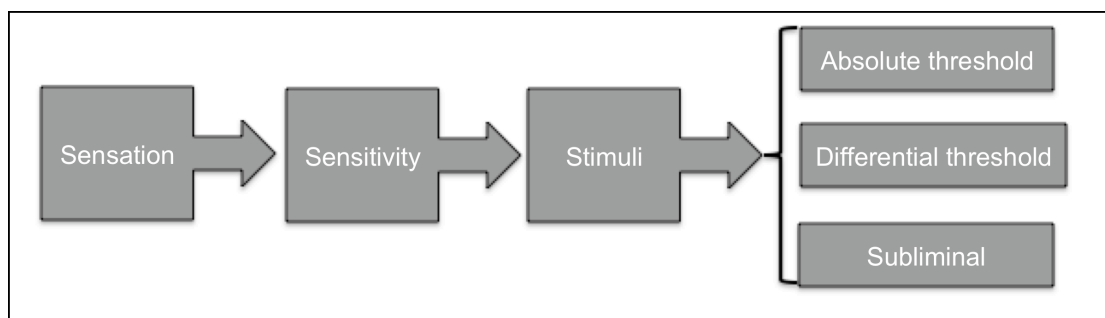
Schiffman and Kanuk (2004:159) describe sensitivity to stimuli as the experience of sensation. An example of a brand that successfully manages consumer perceptions through the experience of sensation is Tide, a heavy-duty detergent from Procter and Gamble (Rutherford, 2003:5). As illustrated in figure 2.9, Tide manages various levels of stimuli in order to influence the experience of sensation. Examples of how Tide manages consumer perception, by influencing sensation, include the following (Rutherford, 2003:5):

- Consumers perceive granules in washing powder equivalent to cleaning. In reality, the granules are not related to cleaning, but a great deal of effort goes into making the suds look perfect in shape and colour.
- The size of the granules, which affects the perception of cleaning, is closely managed to find the most likeable size of granule.
- Brighteners make clothes appear white, and although it is expensive, it is always part of the formula.
- Perfume makes clothes smell good, and is associated with cleaner clothes.

- Powerful packaging equals the strength of the detergent.
- Advertising stresses cleaning power as the single-minded message.

The first step of the perceptual process is selecting stimuli from the environment as the sensation experience. Sensation varies with the amount of stimuli that consumers are exposed to. Sensation is also dependant on the amount of stimuli that consumers are exposed to, and the environment in which it takes place (Iqbal, 2007:10). For example, a consumer in a busy street in a city will not experience much stimuli, as he or she is overloaded with noise from the city. Thus there are various levels of stimuli that may result in sensation. Consumer sensitivity to stimuli are represented on one of three levels (Schiffman and Kanuk, 2004:159): the absolute threshold, the differential threshold and subliminally. The three levels of stimuli determine the sensitivity of consumers to stimuli, and thereafter, determine the sensation, as depicted in figure 2.9.

**Figure 2.9 Sensitivity to stimuli**



Source: Adapted from Schiffman and Kanuk, (2004:159).

Stimuli that are received via the senses are experienced by consumers as sensation (see figure 2.8). As depicted in figure 2.9, sensation as the experience of sensitivity to stimuli, is dependant on three varying levels of

stimuli, namely the absolute and differential thresholds, and subliminally.

These levels of stimuli are discussed next:

- *Absolute threshold* is the minimum level at which stimuli begin to be sensed, as illustrated in figure 2.9 (Sheth *et al.*, 1999:305). In other words, the absolute threshold is the point where a consumer begins to notice stimuli. For example, a billboard on the side of the road could be the absolute threshold. When the number of billboards in the area increase, consumers are less sensitive to the impact of the billboard, and the point where consumers first begin to notice stimuli, shifts. Consumers therefore become less sensitive to stimuli as the number of billboards increase. Consumers adapt to circumstances, and therefore become familiar with a certain level of sensation which impacts the absolute threshold.
- *Differential threshold* is the minimum difference noticed between two similar stimuli (see figure 2.9). In other words, the differential threshold is the additional intensity of a stimulus that would create a slight difference between two sets of stimuli (Schiffman and Kanuk, 2004:160). The differences in stimuli could apply to pricing, advertising or product performance. Weber's law (1983) states that the stronger the initial stimulus, the greater the additional intensity will need to be for the second intensity to be perceived as different (Zanker, 1994:1). For example, a floor polish brand that wants to compete with another in the industry could claim to have its polished surfaces last for twenty five days with the competitor claiming only 20 days. Twenty three (23) days, hypothetically, would not be perceived to be that much different, but five

days or a quarter longer could be perceived to have a noticeable difference.

- *Subliminal* is the third level of stimuli in the sensitivity to stimuli model, as depicted in figure 2.9. Stimuli which are unconsciously received by consumers are described as subliminal. As opposed to a subliminal unconscious reception of stimuli, most forms of stimuli are perceived by consumers above levels of conscious awareness, where a consumer is aware of the reception of stimuli. A subliminal stimulus is too weak to be received consciously by consumers, and however it is sensorially received, it is subliminally perceived.

## **2.5.2 STEP 2: ORGANISATION**

The perceptual process, as part of the perception development model, consists of three steps; the second step of the perceptual process is organisation (see figure 2.8). Perceptual organisation is the process whereby different sets of stimuli are organised or grouped together so that stimuli are not received as separate sets, but rather as unified sensations. The organisation principle is studied under the so-called Gestalt psychology, which is derived from the German school where it was first developed (Schiffman and Kanuk, 2004:173). Gestalt psychology has three principles of perceptual organisation, namely, figure and ground, grouping and closure. Each of these organisation principles will now be discussed:

- *Figure and ground* is a stimuli organisation principle that is derived from the visual illustration of a solid figure in the foreground, which is

distinctly separate from the background which is pale, indefinite and continuous. Figure and ground is the organisation of stimuli so that it may contrast with stimuli from the environment. In order for stimuli to be noticed, marketers should clearly separate the figure (stimuli) from the ground (environment). Figure and ground can be illustrated by music. Music is often used where it can either be playing in the background, in which case it is 'ground', or it can be attentively listened to and is the 'figure'.

- *Grouping* is the concept of stimuli organisation that is applied to the grouping of stimuli to form a unified whole. Grouping refers to small bits of information that are grouped together to make it easier to recall, or to experience as a sensation (Schiffman and Kanuk, 2004:174). The grouping of stimuli consists of any groups of stimuli or associations that may result in the experience of sensation. A practical example is telephone numbers that are memorised by grouping an area code, with the first three digits followed by the second three digits. Marketers use grouping of stimuli by associating brand information with desired images. For example, a tea advertiser aiming to create favourable experiences of sensation, may group visuals that imply romance with drinking tea. A scene with a man and a woman sipping tea in a beautiful room and in front of a fireplace can be grouped as a romantic mood that is experienced from drinking tea.
- *Closure* is the organisation principle that refers to the completion of stimuli in the mind of the consumer. Closure is therefore completing incomplete stimuli in the form of images or messages. For example, an image of an incomplete circle is usually perceived as a circle and not an

arc. With consumers completing stimuli, closure creates a higher level of consumer involvement in the perceptual process, and ultimately, a higher experience of sensation. As a result of a higher level of consumer involvement in the perceptual process, incomplete stimuli are better recalled or experienced as sensation than completed stimuli (Schiffman and Kanuk, 2004:174). To illustrate, a familiar television commercial tune that is played on radio is perceived by consumers as incomplete, and listeners therefore become more involved by paying attention to complete the message.

### **2.5.3 STEP 3: INTERPRETATION**

The final step in the perceptual process, as depicted in figure 2.8, will now be discussed. The perceptual process involves exposure to a stimulus, organising stimuli, and finally, interpreting the meaning in order to respond accordingly (Sheth *et al.*, 1999:299). Perceptual interpretation is the meaning assigned to stimuli and a consumer's evaluation of an object as either liked or disliked. Consumers evaluate stimuli subjectively, based on what they expect to see in terms of past experience, the number of plausible explanations that can be envisioned, motives, interests and the clarity of the stimuli (Schiffman and Kanuk, 2004:199). Consumers therefore make decisions based on what they perceive, and not necessarily on reality. As perception is subjective to individual consumer judgement, misinterpretations can also be made. Misinterpretations, that could distort perception, include: physical appearance, stereotypes, halo effects, irrelevant cues, first impressions and over-reactions (Schiffman and Kanuk, 2004:158). In which ever way it is perceived, the three

steps of the perceptual process will ultimately determine the brand decision. The outcome of the perceptual process will therefore determine whether or not consumers act upon it to make a brand decision. The outcome of the perceptual development process is the consumer's brand decision, either as brand acceptance or rejection. In summarising, the perceptual process, as outlined in figure 2.8, consists of sensory input received via the senses from stimuli (see section 2.5.1), and is organised by grouping stimuli in order to make sense (see section 2.5.2), and finally, stimuli are interpreted to form a brand decision.

## **2.6 CONCLUSION**

To conclude, the marketing concept is centred around the consumer. Marketers communicate with consumers to generate brand acceptance, and ultimately, to generate profit from product sales. The relevance of consumer behaviour is to understand how brands can communicate with the target consumer, at the right place and at the right time (Schiffman and Kanuk, 2004:89), and aim to satisfy the needs of consumers in profit producing ways (Grannel, 2007:1). Consumer behavioural factors will ultimately influence the brand decision with the aim of producing product sales. Brand decisions are influenced by consumer brand perceptions. Consumers develop perceptions by processing information through consumer learning. The individual behavioural factors that will therefore influence the brand decision consist of consumer learning and perception. Consumer learning is the personal meaning that consumers attach to brands, which create a perception of the brand, and finally, influence the brand decision. Perceptions are formed when

consumers learn of brand information (stimuli) that is received via the senses. Senses, in the context of consumer learning and perception, are therefore the receptors of brand stimuli. According to Sheth *et al.*, (1999:344), a brand that is differentiated by the impact it has on the senses, is easily perceived by the consumer. This study is aimed at investigating the effect of the senses on the perception of a brand.

The purpose of influencing consumer perceptions is to achieve consumer brand acceptance, and finally, product sales. Consumer perceptions are therefore important components in marketing, with product sales reliant thereupon. The development of consumer perception commences with consumer senses as the receptors of information from the environment, as illustrated in figure 2.1. It is understood that when many senses are involved in the consumer perceptual development process, there could be an influence in consumer perceptions (Lindstrom, 2005:96). When considering this concept in a marketing context, it can be concluded that senses do impact upon the perceptions of a brand.

The consumer perceptual development process, in influencing consumer perceptions, was discussed. The first step of the perceptual process is *selecting* stimuli. Consumers are exposed to many forms of stimuli from brands and media, and these can not all be processed (Iqbal, 2007:9). Due to this overexposure of stimuli and media, consumers are selective in processing stimuli. Consumers who are sensitive to stimuli can process the information and form a perception (Enquist, 2008:28). Sensitivity to stimuli thus creates a consumer experience of various sensations (see figure 2.8). Consumers



sensitive to stimuli experience sensations as the first step in the perceptual process. The second part of the perceptual process is *organising* stimuli. Sensations are organised by consumers through adding or subtracting from stimuli, to form an image of a brand (see section 2.3.2). Consumers' personal experiences can either enhance or infer from the brand image, and thereby influence the brand perception. Consumers organise stimuli with every brand experience, and each brand experience can therefore influence the brand image. Consumer personal experiences, comprising of stable cognitive organisation, determine particular perceptions (Cant *et al.*, 2002:100). *Interpretation* is the final part of the perceptual process, as outlined in figure 2.8, where stimuli are interpreted subjectively, according to unique consumer personalities, biases and needs (Sheth *et al.*, 1999: 300).

This study is aimed at investigating the effect of the senses on the perception of a brand. As mentioned, the development of consumer perception begins with consumer senses as the receptors of information from the environment. One can therefore conclude that marketers can use the senses to influence brand perception. The senses will be discussed in the next chapter.

This chapter addressed several elements of consumer perception development. Firstly, the nature of consumer behaviour was discussed. This was followed by methods of influencing consumer behaviour and the consumer decision-making process. Thirdly, consumer learning was discussed. This chapter concluded with the consumer perceptual process.

## SENSORY MARKETING

---

---

### 3.1 INTRODUCTION

Technology and a vast amount of media options have made it possible for organisations to reach consumers across the world (Rutherford, 2003:6); however, through technology and media, consumers are also subject to visual over-stimulation (Enquist, 2006:4). As a result of visual over-stimulation, consumers are being removed from their physical reality and are seeking new experiences to reaffirm the fact that they are human. There is an increased demand for the arousal of senses, and through this, consumers can regain their sense of sight and smell, and be made sensitive to taste, touch and sound (Lyttleton, 2007:89). The perfume industry, for example, exemplifies this and Proust (in Lyttleton, 2007:89) states that "...perfumery is and always will be a combination of alchemy, olfactory imagination and memory, and smells are the guardians of the past". "They evoke what Proust called a 'nightlight in the bedroom of memory.'..." (Lyttleton, 2007:223). In other words, it is believed that the senses have the ability to evoke memories.

When considering brands and brand communication, the improved technology and increased media exposure affects consumer attention and perceptual

processing. As mentioned in chapter two, the marketing concept is about appealing to consumer needs to generate brand acceptance, and ultimately, facilitate profit from product sales. The challenge therefore is for brands to break through technology and media clutter in an effort to influence consumer perceptions, by using alternative and effective means of brand communication with consumers (North and Enslin, 2004:152). One way of using alternative means of brand communication is through stimulating consumer senses, and in this study it is described as sensory marketing.

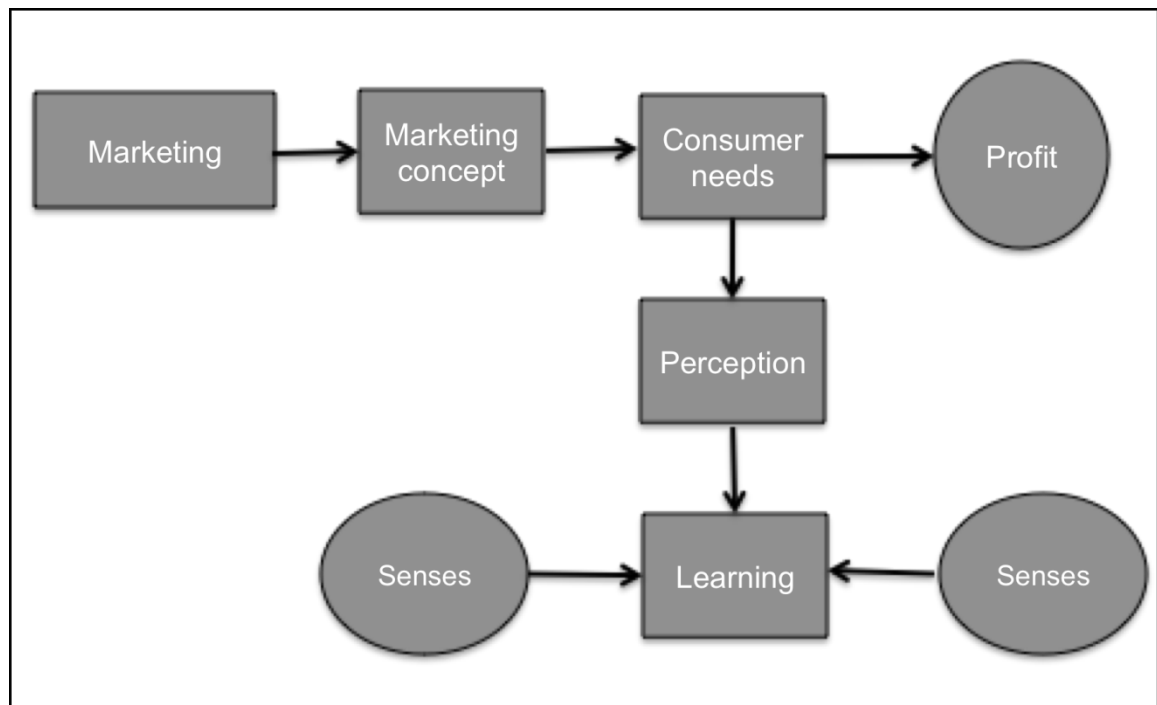
This chapter commences with a discussion on the nature of the senses, in the context of brand perceptions. This is followed by a discussion of the senses as part of brand-building tools, which is defined as sensory marketing. The three elements that form part of sensory brand-building tools, namely, brand elements, marketing programmes and brand associations, are each discussed briefly. Following the discussions on the nature of the senses and sensory marketing, sensory science is discussed. This study is aimed at investigating the effect of the senses on the perception of a brand. Sensory science as the foundation for sensory research is discussed. Finally, this chapter concludes with consumer sensory research.

### **3.2 SENSES INFLUENCING PERCEPTIONS**

This study was aimed at investigating the effect of the senses on the perception of a brand. The process of influencing perceptions, by way of the senses, commenced with discussions on consumer behaviour (chapter 2). This supports the marketing concept's aim of influencing consumer

perceptions, in order to satisfy consumer needs and produce brand profits (Kotler, 2003:20). Figure 3.1 depicts the influence of the senses on the perception of a brand.

**Figure 3.1 Senses influencing perception**

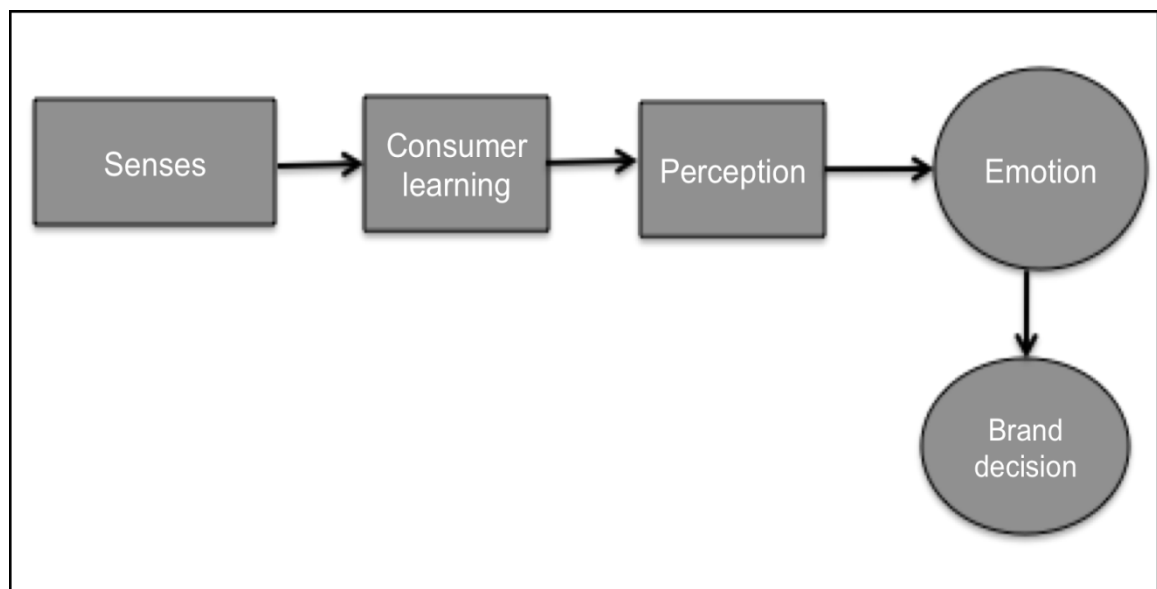


Source: Adapted from Schiffman and Kanuk, (2004:188); Lindstrom (2005:17).

As illustrated in figure 3.1, the marketing concept aims to address consumer needs to induce brand profit, generated by sales. Consumer needs are appealed to by communicating brand messages through information or stimuli that is received via the senses. The senses receive information from the brand, and this information will form their perception of a brand. Brand stimuli that are received via the senses provide the basis for brand perceptions (Schiffman and Kanuk, 2004:188). According to Lindstrom (2005:17), the larger the number of consumer senses that are stimulated by brands, the greater the positive synergies that are created, and in turn, positive brand perceptions.

The perception development process, as discussed in chapter 2, commences with the senses as the receptors of information from the environment, and it is concluded that senses can influence perceptions, and therefore, brand decisions. As depicted in figure 3.2, the outcome of the perceptual development process is a consumer's brand decision to accept or reject a brand.

**Figure 3.2 Outcome of the perceptual process**



**Source:** Adapted from Sheth *et al.*, (1999:298); Van Kleef *et al.*, (2003:388).

As illustrated in figure 3.2, the final result of the consumer perceptual process is a brand decision. The perceptual process will influence consumer emotions, which in turn will influence the brand decision to either accept or reject a brand. Emotions are influenced by a consumer's perception of the usefulness of the stimuli provided or information input (Van Kleef, *et al.*, 2003:388). The manner in which consumers receive brand information can therefore influence emotions. Positive brand experiences can result in positive emotions and

brand acceptance. One can therefore conclude that stimulating brand experiences can influence a brand decision.

The perceptual process, illustrated in figure 3.2, depicts this process of stimulated senses which, together with information and memory, create perceptions that lead to emotional responses. According to Swanson and Davis (2003:204), sensory stimulating experiences, coupled with the consumer's memory about the consumption experience, influence emotions. Senses are linked to memory (see section 2.3.2). Information and memory influences emotions (Low and Lamb, 2000:350) and the senses can thus create emotional attachments between consumers and brands (Nissim, 2005:1). According to Manning-Schaffel (2006:1), the emotional response is a consumer feeling or an attitude which determines the outcome in responding favourably or unfavourably to a certain object (e.g. a product category, a brand, a service, an advertisement, a website or a retail establishment). Consumer emotions indicate the overall liking or preference for objects which influence brand decisions (Cravens and Piercy, 2003:123). Emotions are learned behaviours that develop from personal experiences, interactions with other consumers, or marketing efforts such as advertising or personal selling (Weisman, 2003:1).

According to Thomson *et al.*, (2005:75), the possibility of consumers forming emotional attachments with brands, increases the likelihood of financial sacrifices in order to obtain the brand. Consumer financial sacrifices lead to brand profits. As mentioned earlier, the marketing concept is concerned with the satisfaction of consumer needs and producing brand profit. Brand profit is

the product of brand acceptance, which is a consumer perception as a result of positive emotional responses towards a brand. This chapter focuses on the senses, and the next section discusses the nature of the senses.

### **3.3 THE NATURE OF THE SENSES**

Perceptions are formed from stimuli that are received from the environment through the five senses, namely, sight, touch, smell, sound and taste (Tollington, 1998:181). Stimuli that consumers receive via the senses are experienced as sensations, which are the direct responses of the sensory organs to stimuli (see section 2.5.1). Sensory receptors are the human organs (such as the eyes, ears, nose, mouth and skin) that receive sensory inputs. Their sensory functions are to see, hear, smell, taste and feel. These functions, either individually or in combination, evaluate the use of consumer products in order to form perceptions (Schiffman and Kanuk, 2004:159). The experience of sensation is dependant on the quality of consumer sensory receptors (e.g. eyesight or hearing) and the amount of stimuli to which they are exposed to.

As mentioned previously, consumer perceptions are influenced by information that is received via the senses. Consumers process external information via the senses, from which they form a perception that impacts on the decision of whether or not to purchase a brand. Information is stimuli that can be evaluated on sensory characteristics and on informational characteristics

(Sheth *et al.*, 1999:300) (see section 2.5). Sensory characteristics can be evaluated on two levels, namely, intensity and multiple senses:

- *Intensity*. Heightened sensory features, such as bright colours, loud noises and strong aromas attract more attention and are better perceived than weak sensory features (Sheth *et al.*, 1999:300).
- *Multiple senses*. The involvement of more senses, through stimuli, attracts more attention. In other words, sensory synergy creates a stronger connection between the sender and the receiver (Lindstrom, 2005:98).

One can conclude that the senses influence perceptions and brand decisions either through intense sensory features or through multiple senses. Each of the respective senses will now be discussed within the context of consumer behaviour.

### **3.3.1 SMELL**

Smell is the sense which is experienced through the olfactory glands in the nose (Lyttleton, 2007:223). Smell is used to evaluate consumer products for freshness or aroma. The function of smell is also to alert humans of potential danger, like poison or fire (Hines, 2003:1), where smoke, for instance, can be smelt before a fire or smoke is seen. Smell is an individualistic sense which is linked to personal experiences (Enquist, 2006:14). Each consumer has a unique and individualistic experience of smell, and consumers are not born



with a memory bank of smells; it is a learned response from associations through consumer experiences (Snyman, 2008:1).

According to Lyttleton (2007:222), smell is the most memorable of all senses, in that it is able to stimulate elapsed memory. Smell is developed by memorising associations with certain smells over a period of time. In other words, smell associations stimulate the olfactory imagination with either positive or negative memories. Consumer smell experiences could be positive or negative, and smell is thus associated with positive or negative memories. To illustrate, coconut oil is usually used on summer holidays at the beach. Summer holidays are usually pleasant, and the smell of coconut oil is therefore associated with pleasant summer holidays. The smell experience of coconut oil in any other environment can therefore stimulate the olfactory imagination of pleasant summer holidays. Marketers can therefore use the positive associations of coconut smells in brand communication in, for instance, travel agencies or beachwear stores.

As mentioned already, sensory functions take part, either singly or in combination, in the evaluation and use of most consumer products. Smell is usually used in conjunction with taste when consumers evaluate products. Brandy or wine tastings, for example, use the senses to evaluate products as smell and taste are closely related. Snyman (2008:1) describes the aroma of good brandy as “the promise made by the nose of the brandy should be delivered by the taste of the brandy”. The senses of smell and taste therefore compliment one another. The sensory experience in the case of brandy is complimented by the aroma, through smell and taste, which are

complimentary senses. Lindstrom (2005:17) states that complimentary senses create positive perceptions of brands.

### **3.3.2 TASTE**

This functional sense, taste, evaluates texture and flavour of consumable products. The nature of the sense of taste is mostly restricted to physical consumption. Due to the nature of the sense, taste is mostly limited to the food and beverage industries. However, as with the sense of smell, consumers build a memory bank of tastes, and the suggestion of certain tastes can evoke certain memories. Stimuli can therefore stir up memories of pleasant tastes by association (Imram, 1999:224). For example, Apple's iMac ran a campaign, 'YUM', which played on the sense of taste. This campaign was executed by changing the colour of their computers to shades of strawberry, grape and blueberry (Roberts, 2005:120). These fruits are generally associated with positive emotions as they have a pleasant taste, and the aim of the campaign was to evoke positive memories of these fruits by associating the computers in these colours with the fruits. Taste can therefore be appealed to in brand communications in industries other than food (Hines, 2006:1).

Senses like taste and sight, which stimulate in combination, can create more memorable effects and impactful perceptions of brands (Lindstrom, 2005:96). Consumers can evaluate flavour and texture by using taste, but different senses will impact upon the perceptions of consumers. For example, taste has an effect on consumer perception, but the "first taste is almost always with

the eye” (Imram, 1999:224). Food or drinks that are well-presented and are appealing to the eye have a better chance of creating a positive perception (Kent, 2003:135). Positive perceptions could therefore possibly result from the complimentary senses sight and taste.

### **3.3.3 SIGHT**

Consumers are most familiar with the sense sight, which is used to form images from visual stimuli (Enquist, 2006:14). Consumers memorise images from words and brand communication (Enquist, 2006:14), and it is important for marketers to create stimulating visuals that will have memorable brand images (Tan, 2007:350). Other senses are often subordinate to vision as reading, interpreting and understanding the world are all experienced through sight (Oswald, 2007:1). Due to the nature of this sense, sight can thus be easily over-stimulated in comparison to other senses, and most original visuals have an impact on consumers. As depicted in section 2.5.1, consumers are selective with exposure to stimuli, and absolute thresholds are less sensitive to ordinary images. Visuals therefore need to be engaging in order for a consumer to consider processing it as information (see section 2.3.2).

As per the iMac example that involved colour in combination with taste, colour is also an essential element when considering sight (Roberts, 2005:115). It is widely understood that different colours can evoke different human emotions and associations (Lin, 2007:3). For example, depending on culture; red is often associated with passion, and green is related to nature. Colour is

therefore an essential element of sight and it is managed through pantones. Designers use pantones as a colour reference tool which creates unique colours for brand imagery (Roberts, 2005:115). These pantones enable marketers to produce colour consistently with the correct clarity. Pantones include colours for consistent visual images, colour range types, grades and the names of all colours.

### **3.3.4 HEAR**

Similar to smell and taste, hearing uses sound through sensory associations to entrench brands in the consumer's memory (Lin, 2007:1). Sensory associations could be built into brand communication and product functionality, in order to evoke consumer memories (Kent, 3003:135). The sense of hearing uses, for instance, jingles, music, and product-imitating sounds to evoke memories. For example, Microsoft Windows is easily recognisable with the same start-up tune every time a computer is started. The sound that is regularly repeated creates brand recognition (Clegg, 2006:1).

As mentioned previously, sensory associations could be built into brand communication and product functionality in order to evoke consumer memories. Music, as a sensory association, is an acoustic that can evoke emotions (Enquist, 2006:14). The evoked emotions are a result of consumers attaching personal meaning (from memories) to music (see figure 3.2). Panskepp, a neuroscientist who conducted research in 1955, determined that

music was important to people, as 70 percent of the respondents indicated that music elicits feelings of emotions (Roberts, 2005:117).

The acoustic properties of a brand can be used to appeal to consumer needs, and to subtly inform consumers of the brand's attributes (Clegg, 2006:2). In the beverage industry, for example, the sound of a beer can when opened and the sound of the pouring are the aural elements, and are likely to appeal to consumers' needs (Ray, 2004:189). A consumer can feel thirsty and a refreshing beverage can satisfy the consumer's need. In the beer example, the beer can sound can also evoke memories of thirst and refreshment; the brand is then in a position to satisfy the consumer's thirst with a refreshing beverage. For example, Brahma, a beer brand in Brazil, sold their product to consumers with the simple sound of the 'tsss' of the cap coming off a bottle. Beer drinkers had to 'tsss' to the barman to be served a chilled Brahma at any bar (Roberts, 2005:117). Another beverage with aural associations is champagne. Roberts (2005:117) states that "the pop of a champagne cork is one of the most evocative sounds of the Western world". Consumers eagerly await the sound of a champagne cork popping, which is usually associated with extravagance and celebrations.

### **3.3.5 FEEL**

As mentioned, senses are the receptors of information from the environment. Feeling, as a sense, is experienced through touch and it confirms the presence of whatever information it is that is being received. The skin is used

to touch and it is the largest organ in the body with a special network of nerves (Enquist, 2006:14). Consumer purchases are driven by enjoyable feeling and sensory attraction (Philippe, Schacher and Adolphe, 2003:235). The phenomenon of feeling a product is especially evident in the garment industry, where garments are usually touched to feel the quality of the product. Feeling is often experienced as the overall sensation and the involvement of all the senses and sensory associations (Philippe *et al.*, 2003:235).

The car industry has explored the involvement of the senses and sensory associations intensely (Tan, 2007:350). Feeling is the overall response to the experience of a car, however, there are many senses involved in adding to the sensory experience. Inoue (Roberts, 2005:125) states that the feel of a car is often about the smaller details, such as the feel of the material, leather or wood. He claims that there are no machines that can determine the sense of the experience. For example, when a consumer turns the steering wheel, the sound is so faint that one can not measure it, but the feel of it is there. The aim is to create a stillness that one can actually measure by figures in the normal sense, and this is done by feeling and touch (Roberts, 2005:125). As mentioned earlier, feeling is the overall response to the experience of a car, and many senses are involved in adding to the sensory experience, such as the sound of the car door. Consumers recognise certain car brands purely by the sound of the car door closing (Clegg, 2006:2). Smell is also incorporated in the car industry through a certain scent that is sprayed into cars, which aims to associate the smell with a new car. One can therefore conclude that

the car industry stimulates a consumer's sense of touch, and it is complimented with various other senses.

The above-mentioned sensory functions (sight, sound, smell, taste and feel) form part of the senses in the consumer perceptual process. As depicted in figure 3.2, the outcome of the perceptual process is an emotional bond with a brand which results in brand decisions. The next section will focus on consumer emotions with regard to brands as emotional attachments.

### **3.4 EMOTIONAL ATTACHMENT**

According to Sheth *et al.*, (1999:342), the perceptions of brands are driven by and immersed in emotions. Consumer perceptions are influenced by information that is received via the senses, which are linked to memory and influence emotions. This is the consumer perceptual process which results in an emotional bond, and which can result in brand acceptance, as depicted in figure 3.2. According to Lindstrom (2005a:86), the larger the number of senses that are stimulated, the stronger the emotional bond with a brand will be. Emotional bonds will determine the brand decision, where positive emotions will likely result in brand acceptance, and negative emotions in brand rejection (Shaffie, 2008:4).

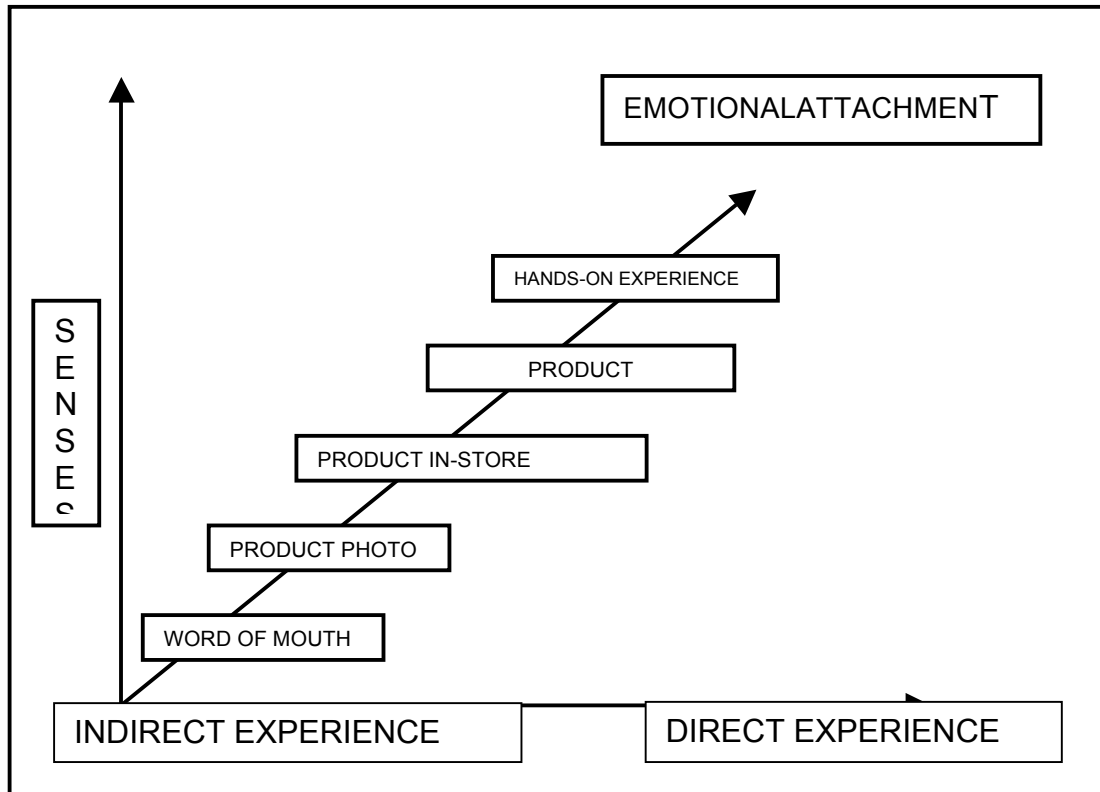
The strong emotional bonds, as described by Lindstrom (2005:96), are achieved with brand images. A brand image is stored knowledge about the brand, and a belief in a consumer's long-term memory (see chapter 2). These brand images need to be recalled in order to form emotional attachments with brands. Marketers aim to aid the recalling of brand images in the consumer's

memory by providing associations for brand images through symbols, icons, jingles and other brand elements (Thomson *et al.*, 2005:79). The brand associations are elicited through stimuli that are received by the senses as sensory brand experiences (Lindstrom, 2005a:87). The brand associations are held in the memory of the consumer, as the brand image will reflect the consumer's emotional bonds with the brand (Hsieh and Lindridge, 2005:15). In conclusion, a strong positive brand image, delivered by a memorable sensory brand experience, will influence consumer emotions and brand decisions (James, 2005:14).

Memorable sensory brand experiences relate to a consumer's involvement with a brand (Mooy and Robben, 2002:433). Consumers are more involved with brands through an increased number of intensely stimulated senses or direct brand experiences (James, 2005:14) (see section 3.2). For example, a consumer can have a direct brand experience where a product can be physically touched, smelled or tasted, or have an indirect experience where a product is read about or seen as an image. There is a positive relation between a direct brand experience, and the number of senses that are involved in increasing consumer interaction (Mooy and Robben, 2002:433). Figure 3.3 displays the progression from an indirect product experience, where there are few senses involved in brand communication, to a direct experience where there are multiple senses involved.



**Figure 3.3 The direct experience spectrum**



Source: Adapted from Mooy and Robben (2002:433).

As illustrated in figure 3.3, multiple senses are involved with a direct experience, like a product demonstration, as opposed to an indirect experience like reading an advertisement which uses sight primarily. An increase in direct consumer experience could increase motivation and the ability to process product-related information, in order to create positive brand images (Mooy and Robben, 2002:433). In other words, consumers are intrigued by brands that involve the senses through direct experiences. In turn, these direct experiences can create positive emotions, which could lead to positive brand decisions (Mooy and Robben, 2002:433).

It has been deduced that sensory brand experiences can meet the marketing principle, by satisfying consumer needs in a profit-producing manner. Sensory brand experiences can also exceed consumer needs and create sensory

satisfaction. The process of consuming brands for sensory satisfaction is described as hedonic consumption (Sheth *et al.*, 1999:360). Hedonic consumption is the use of brands that give the consumer pleasure, through the senses which stimulates emotional development. As a result of hedonic consumption, consumers have an emotional bond and a deep level of involvement with the brand. The emotional bond is a relationship between the brand and the consumer, stemming from a consumer's extreme interest in a brand. The emotional bond or involvement will affect consumer perceptions in a number of ways (Sheth *et al.*, 1999:360):

- Deeply-involved consumers are knowledgeable about the brands, and are thus opinion makers.
- Consumers consume a greater quantity of the brand.
- Consumers are less sensitive to price.
- Consumers seek constant information about the brand.
- Consumers are willing to spend more time in related activities, like joining fan clubs for instance.

The extreme interest shown by a consumer in a brand, as a result of sensory satisfaction, has many benefits, as described above. Marketers can use the approach of involving more senses to stimulate emotional attachments that could influence perceptions in marketing activities. The next section will focus on sensory marketing in the context of involving intensely stimulated, multiple senses in marketing activities.

### **3.5 SENSORY MARKETING**

The marketing concept aims to produce brand profits by meeting consumer needs through acceptance of a brand (see section 2.3). Marketers could influence perceptions with sensory brand experiences, which can lead to brand acceptance through sensory marketing. The aim of sensory marketing is to influence consumer perceptions by multiple and intensely stimulated senses in brand-building programmes. This section will focus on sensory marketing as a brand-building tool.

The ways in which consumers perceive brands are key determinants of long-term relationships between brands and consumers (Low and Lamb, 2000:355). Brands are promises made to consumers about products or services. In other words, brands deliver added value to products and services, as per the brand promise that consumer needs will be met. While the promises may not always be immediately credible, reinforcement takes place over time as the relationship between the brand and its consumers is forged (Gregg, 2003).

With a greater recognition of the value of brands, an increase in demand has developed for the effective strategic management of brands as assets (Clifton and Simmons, 2003). Strategic brand management involves brand-building programmes, with the aim of influencing consumer perceptions and strengthening the relationship with the brand (Guzman, 2007:7). The outcome of influencing consumer perceptions is an emotional bond with the brand (see figure 3.2) and, building brands are therefore about building emotional

attachments between the consumer and the brand (Thomson *et al.*, 2006:77). The senses are directly linked to emotions (Nissim, 2005:1), and the senses are therefore involved in building brands through emotional attachments. One can therefore conclude that marketers aiming to build brands can do so by involving more senses. The greater the number of senses that the brand appeals to, the stronger the emotional attachment (Lindstrom, 2005a:86). As a result of a strong emotional attachment with the brand, consumers become loyal towards the brand and may be prepared to pay higher margins for brands, or have a competitive advantage, amongst other brand-building effects (Frost, 2006:1).

It has been deduced that brand-building programmes, which aim to influence consumer perceptions, could involve multiple or intensely stimulated senses in order to influence consumer perceptions. In order to influence perceptions in this manner, multiple sensory features could be included in brand-building programmes. For the purposes of this study, the process of involving multiple or intensely stimulated senses in brand-building is named sensory marketing. The aim of sensory marketing is to influence consumer perceptions by involving a number of the stimulated senses in brand-building programmes.

Sensory marketing is a sensory approach to brand-building, which follows an integrated approach by involving the brand and its communication in totality (Van Trijp, 2008:1). According to Schiffman and Kanuk (2004:199), consumer perceptions of brands are based on brand information of brand intrinsics (colour, flavour and aroma) and, or extrinsics (price, store image, brand image

and service environment). Sensory marketing is therefore based on an integrated brand communication approach of both intrinsic and extrinsic brand attributes (Van Trijp, 2008:1). When considering consumable products, such as food and beverages, the senses are mostly stimulated by intrinsic attributes, such as the taste and smell of the physical product (Muller, 2008:1). However, sensory marketing includes sensory characteristics of the brand with both intrinsic and extrinsic attributes. According to Lindstrom (2005:105), there are benefits in incorporating both intrinsic and extrinsic properties in sensory marketing. In other words, consumer perceptions may be impacted by involving more information through the senses about brand attributes in brand communication. The benefits of sensory marketing are a stimulated imagination, enhancement of the brand and a consumer emotional attachment. These will now be discussed:

- *Stimulated imagination.* The direct sensory experience with a brand (see figure 3.3) provides consumers with brand-related information, so that they can make brand decisions (Mooy and Robben, 2002:433). In other words, the senses provide consumers with information that can stimulate their imagination (memory) and lead to a brand decision. Information and memory forms part of consumer learning, which could result in an emotional attachment with the brand (see section 2.3.1). As discussed, stimulated senses (sensation) can recall memories which evoke certain consumer emotions. Information, on the other hand, is required in order to proceed to a higher level in the perceptual process, once the senses are stimulated (see section 2.3.1). The senses thus influence both information and memory in the process of stimulating the

imagination. To illustrate, a consumer can walk down a street and past an ice-cream shop on a hot day, and find the smell of the freshly baked cones appealing, by stimulating the senses. The ice-cream shop might or might not be visible through signage, in other words, branded or non-branded. A non-branded shop could simply be passed by as there is no information in order to proceed to a higher perceptual level after the sensation. However, if signage is visible and this information can be associated with the sensation of a refreshing product, the imagination is stimulated, and this can result in a purchase decision (Enquist, 2006:45). The stimulated imagination is the experience of direct sensory contact with the brand which guides the consumer to a purchase situation. By stimulating the imagination, a consumer's state of mind goes directly from arousal to action (Kent, 2003:134). The stimulated imagination often motivates impulsive behaviour, where consumers purchase in response to feeling sudden urges to buy something (Sheth *et al.*, 1999:717). By involving the product intrinsics (smell of fresh cones) along with the extrinsics (signage) the consumer's imagination was stimulated.

- *Brand enhancement.* The involvement of sensory brand features may enhance the perception of a brand and strengthen the emotional bond. Enhancing a brand with sensory features is done on two levels, branded and non-branded (Lindstrom, 2005:106). Non-branded enhancement will add sensory features to a brand that may affect the perception or the perceived quality of a brand. Non-branded enhancement improves the design or aesthetics of a brand. An example of non-branded

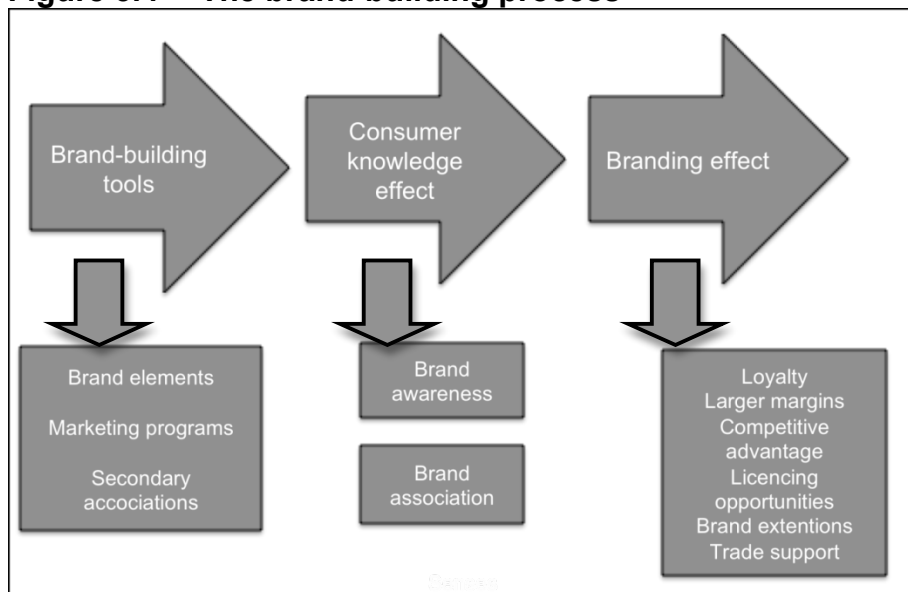
enhancement would be adapting the colour of a beverage to that which is preferable to consumers. On the other hand, branded enhancement aims to differentiate the brand by adding distinction. For example, Apple computers use the well-known control function, 'Ctrl', and have replaced it with the Apple logo (Enquist, 2006:45). Loyal users will use the Apple key for shortcuts, like Apple+S, instead of 'Ctrl'+S, to save a file. The Apple logo is thus an essential aspect of the process. The brand is thus enhanced by adding distinction to the brand communication.

- *Emotional attachment.* As depicted in figure 3.2, the outcome of the perceptual process is an emotional bond which leads to brand decisions. The aim of sensory marketing is to create strong, positive and loyal emotional bonds between the brand and the consumer that can lead to positive brand decisions (Lindstrom, 2005:106). Brands are created through a wide range of touch points, and when consumers interact with a brand, they form perceptions or change perceptions (Ray, 2004:189). Every brand touch point or communication, between the consumer and the brand, needs to be managed in order to strengthen the emotional attachment (Tan, 2007:350). Consumers with strong emotional attachments to brands are not likely to switch between brands. An example of a brand that manages all the touch points and forms emotional attachments is Nokia cell phones. Nokia claims to have English-speaking consumers who can navigate their way around their Nokia cell phones in Mandarin (Lindstrom, 2007:35). Nokia uses their consistent navigation systems to form an emotional attachment with

consumers. Consumers who are comfortable with Nokia's cell phone navigation may be less inclined to switch to other brands.

The benefits of sensory marketing to stimulate imagination, enhance the brand and encourage emotional attachment, as described above, are the result of an integrated sensory brand communication approach. This implies that the brand communication is sensorially stimulating and consistent across all brand touch points, and is in line with the brand's positioning. Brand communication forms part of brand-building programmes, which aim to influence consumer perceptions (Guzman, 2007:7). The process of building brands is illustrated in figure 3.4.

**Figure 3.4 The brand-building process**



Source: Adapted from Keller (2003:45).

The brand-building process, as illustrated in figure 3.4, is based on brand-building tools which create consumer knowledge and have a branding effect. The branding effect is a result of consumer loyalty, larger margins, a competitive advantage, etc. Brand-building tools are used in brand

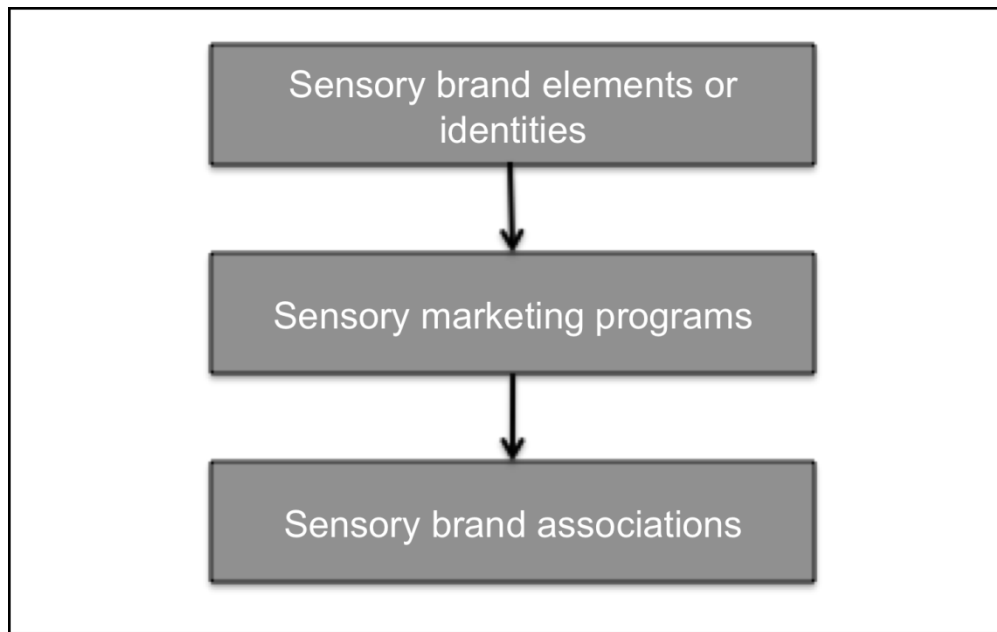


communication with the aim of influencing consumer knowledge by creating brand awareness and associations (see figure 3.4). Building a brand therefore requires creating a brand that consumers are sufficiently aware of through brand communication (Keller, 2003:45). Brand communication is a knowledge-building process that consists of three brand-building tools (see figure 3.4) (Clifton and Simmons, 2004:127):

1. The initial choices for the brand elements or *identities* that make up the brand.
2. The *marketing activities* and supporting marketing program, and the manner in which the brand is integrated in them.
3. Other *associations* that are indirectly transferred to the brand by linking it to some other entity.

Sensory marketing is a form of brand building (figure 3.4) which, firstly, aims to create awareness, and secondly, to influence consumer behaviour (Oswald 2007:1). Sensory marketing is the inclusion of multiple or intensely stimulated senses in brand communication. Sensory brand communication involves the sensory stimulation of brand information, which is consistent across all brand touch points and in line with the brand's positioning (Schiffman and Kanuk, 2004:199). Sensory marketing therefore means that there are more sensory features in brand-building tools, namely, brand elements, marketing programs and secondary brand associations. The sensory marketing tools are illustrated in figure 3.5.

**Figure 3.5 Sensory marketing tools**



Source: Adapted from Thomson *et al.*, (2006:77), Keller (2003:45).

Figure 3.5 illustrates the tools involved in sensory marketing: sensory brand elements (identities), sensory marketing programs and sensory brand associations. Each of these sensory marketing tools will now be discussed in detail.

### **3.5.1 SENSORY BRAND ELEMENTS**

As depicted in figure 3.5, sensory brand elements form part of sensory marketing tools. Sensory brand elements are sensory features that are involved in brand elements. In order to understand the involvement of the senses in sensory brand elements, brand elements will be discussed first.

Brand elements include all the elements by means of which a brand communicates (Ghodeswar, 2008:5), and those trademarkable devices that serve to identify and differentiate a brand (Keller, 2003:45). In essence, brand

elements are symbolic brand representations, such as names, logos, terms, phrases, design, packaging, symbols, slogans, or any combination of these, and are chosen by an individual or an organisation to distinguish a brand from competitor brands (Peter and Donnelly, 2007). Brand elements help consumers to identify the various attributes and characteristics of the brand, its values and supporting behaviours (Guzman, 2006:1). Brand elements include brand names and brand marks, which serve to identify and distinguish one brand from another.

One of the most obvious brand elements, the brand name, is that element of a trademark that can be expressed verbally and visually (including letters, words or numbers) (Haigh and Knowles, 2005:27), and is any word or illustration that clearly distinguishes one seller from another. A brand name usually takes the form of words (Ghodeswar, 2008:5). A brand mark, on the other hand, is that component of a brand that can not be expressed verbally, and includes a graphic design or symbol (Guzman, 2006:1). The brand mark is thus the element of the visual brand identity that does not comprise of words, but a design and a symbol (Haigh and Knowles, 2005:27). A logo is a unique symbol that represents a specific organisation, or a brand name featured in a distinctive type style (Keller, 2003:45).

The symbolic representation of brands that incorporate other sensory features, which differentiate the brand, could entice consumers to feel emotionally attached to the brand (Gilson and LaLonde, 2005:820; Frost, 2004:1). Similar to brand elements or trademarks, sensory brand elements may also be patented. The United Kingdom's revised Trade Marks act, of

1994, states that a trademark can now consist of “words (including personal names), designs, letters, numerals, the shape of goods or their packaging” (Clifton and Simmons, 2003:159). There are many sensory brand elements that encapsulate colours, shapes, scents and sounds that are trademarked (Frost, 2004:1). Companies can strengthen their intellectual property rights and enlarge their trademark portfolios by finding the products, services and advertising programmes for sensory brand elements that can be registered (Gilson and Lalonde, 2005:820). For example, Coca-Cola registered its unique bottle shape and the Intel Corporation its distinctive jingle as trademarks (Roberts, 2005:107). As stated previously, colour is one of the most effective and essential visual sensory features in the brand-building process, since it is the most visible first point of communication (Gilson and LaLonde, 2005:6). United Parcel Service (UPS), for example, holds the registration for the colour ‘chocolate brown’ or the pantone colour reference 462C, as it is applied to entire surfaces of vehicles and uniforms. In conclusion, sensory brand elements are the intentional involvement of sensory elements by which a brand communicates, and those sensory trademarkable devices that serve to identify and differentiate a brand (Enquist, 2006:4).

### **3.5.2 SENSORY MARKETING PROGRAMS**

The second sensory marketing tool is the sensory marketing program (see figure 3.5). This section will commence with a discussion on marketing programs as a platform for sensory marketing programs, which is the deliberate inclusion of the senses in marketing programs. Some challenges

relating to marketing programs are highlighted, followed by a discussion of sensory marketing programs as an alternative to traditional marketing programs.

Marketing programs are the primary input, in brand building, derived from the brand and supporting marketing activities (Kotler and Keller, 2006:284). The strategy and tactics behind marketing programs (also called marketing activities) have evolved in recent years as brands have increased competition in the 'new economy' in the external marketing environment (Keller, 2003:229). Consumers' desire advertisement-free entertainment, and TIVO, PVR and the remote control make it possible to switch between channels or completely remove advertisements (Clifton and Simmons, 2003:128). TIVO and PVR enable consumers to control the television by skipping content such as advertisements and recording relevant programs (Gagnon and Chu, 2005:13)

Traditionally, marketing activities stemmed from the 4Ps (price, product, place and promotion) of the marketing mix (Keller, 2003:237). Brands are now built on a range of alternative contacts with the brand in order to be meaningful and effective (North and Enslin, 2004:157). Typically, the largest portion of marketing budgets is spent on advertising as part of promotion in the traditional marketing mix (Lindstrom, 2005:84). As a result, there is more competition from brands and increasingly more media options which could affect advertising. This disproportionate advertising expenditure can thus have reduced effects on consumers who are not sensorially stimulated (Weisman, 2003:1).

In response to alternative brand contacts and the progression from traditional advertising and marketing activities, which present their own challenges, sensory marketing programmes may have an enhanced effect on consumer perceptions (Murphy, 2005:2). Sensory marketing programmes are the involvement of the senses (smell, touch, taste, sound and sight) in marketing programs, and it aims to reach consumers effectively by influencing perceptions. In response to the new economy of marketing and bringing sensory brand-building programs to the fore, Kotler and Keller (2006:284) highlight three themes, namely, personalisation, integration and internalisation. These three themes will now be discussed within the context of sensory marketing programs.

### **3.5.2.1 PERSONALISATION**

Personalisation is one of the themes of sensory marketing programs. Personalisation is ensuring a brand and its communication is relevant to consumers. Relevant brand programs have the potential for consumers to build emotional attachments, which will determine brand decisions. Personalisation is achieved through experiential marketing, one-on-one marketing, and permission marketing (Keller, 2003:230). Personalisation is part of a sensory marketing program that involves sensory features through experiential marketing, and more effective communication through one-on-one and permission marketing. These personalisation concepts are briefly discussed below:

- *Experiential marketing* promotes a brand not only by communicating features and benefits, but also through unique and interesting experiences (Keller, 2004:231). Experiential marketing is the involvement of sensory features in brand experiences. Experiential marketing is used to communicate with consumers through sensory experiences in order to create memorable brand experiences. Brand experiences can appear in the form of brand communications (advertisements, newsletters, brochures), identity (names, logo, signage), product presence (design, packaging, display), co-branding (sponsorships, product placement, cooperative marketing), spatial environment (office look-and-feel), electronic media (website, broadcast experiences) and people (staff, customers). To illustrate the involvement of sensory features in brand experiences, the banks Abbey National, in the UK, and ING Direct, in the USA, integrated cafes into their establishments (Enquist, 2006:54). Banks are traditionally associated with less positive emotions, such as feelings of distress or agitation. As a result, these banks have successfully differentiated themselves from their competitors by offering a memorable and pleasant consumer experience. The discomfort of having to wait in queue was replaced with comfort by way of food and drink. Coffee and choc-chip cookies, which traditionally create feelings of comfort, were served while consumers waited in lounges, and as a result, the bank was perceived as a comfortable, friendly place.
- *One-on-one marketing* consists of tailor-making products and marketing programs to suit the needs and preferences of individual consumers.

Consumer information can be gathered over time, and brands can use this information to communicate to consumers in a personalised and effective manner. Personalised communication results in relevant brand programs, which create the opportunity for consumers to build emotional attachments with brands. New technologies are permitting marketers to customise mass marketing and execute one-on-one marketing techniques. Powerful computers, detailed databases, flexible manufacturing and interactive communication media (such as internet and e-mail), all combine to foster mass customisation of one-on-one communication (Kotler and Armstrong, 2008:200). Relevant brand programs have the potential for consumers to build emotional attachments, which will determine brand decisions.

- *Permission marketing* is the practice of marketing to consumers, only after gaining their express permission (Keller, 2004:235). Permission marketing, as part of personalisation, is ensuring that a brand and its communication is relevant to consumers, and by expressing permission, consumers are accepting the relevance of the brand and its communication. Consumers give permission through forms of inducement, such as free samples, sales promotions or discounts. Consumers appreciate receiving marketing messages for which they have given permission. As mentioned earlier, new technologies allow marketers to store consumer information, which permit targeted and personalised messages. This is typically done by including opt-in options for consumers who receive communication about the brand.



### 3.5.2.2 INTEGRATION

Sensory marketing programs (see figure 3.5) include integration as a means of reaching consumers effectively and in a sensorially stimulating manner. Integration refers to the combination of various marketing programs from above-the-line and below-the-line marketing (Thompson, 2008:1). The expression 'above-the-line' refers to traditional commission paid for advertising such as press, television, outdoor, cinema and radio. Below-the-line, on the other hand, refers to direct mail, public relations, events and sponsorships. Integration, as a sensory marketing program, focuses on 'integrated marketing' or 'through-the-line' communication (Ray, 2004:2). This concept is used to follow an integrated approach and to gain maximum exposure across all media and marketing channels. Effective brand building can be integrated in three different ways (Cliffton and Simmons, 2004:135):

- *Functional integration* considers how the brand's different actions relate in real-time to each other and to the brand decision. This requires a good understanding of the consumer's decision-making process and the significant effect of conversion at each step. In other words, anticipating the consumer's possible reactions through various decision-making scenarios.
- *Brand integration* means ensuring that everything the brand does, contributes to its unique identity as a brand. In other words, ensuring that every piece of communication or brand touch point will be distinctly linked to the brand, based on single-minded brand positioning (North

and Enslin, 2004:157). In other words, brand integration would ensure a consistent look and feel for a brand in sensory brand-building programs.

- *Thematic integration* is the implementation of a creative idea across multiple channels: TV, outdoor, direct mail or internet. Sensory marketing programs usually run through campaigns, and successful marketing campaigns can be applied through multiple marketing channels. Therefore, one successful creative idea or theme can be executed in a sensory-building program.

### **3.5.2.3 INTERNALISATION**

Sensory brand-building programs consist of personalisation, integration and internalisation. While personalisation and integration is consumer-focused, internalisation is focused on the brand custodians or employees. Internalisation is the process of enticing brand custodians to become loyal to a brand. An internally-focused approach ensures that marketing partners and employees appreciate and understand the basic brand concepts, and how they can build brand equity (Kotler and Keller, 2006:286). In other words, internal branding consists of activities and processes that inform and excite employees about the brand. This will, in turn, enable employees to deliver sensory brand experiences for consumers.

To deliver a consistent sensory brand experience, the brand custodians need to support and believe in the brand promise. For example, John Russell, vice president and managing director of Harley Davidson, Europe, (2003) encourages their employees to spend time with their consumers. He states

that: “If you move from being a commodity product to an emotional product, through real attachment and engagement that comes from creating an experience, the degree of differences might appear to be quite small but the results are going to be much deeper” (Clifton and Simmons, 2003:71). In other words, brand custodians and employees are important drivers of delivering sensory brand tools through internalisation. To summarise, the active engagement of internal employee experiences (internalisation) and external consumer experience (personalisation and integration) are sensory marketing programs that can contribute to brand-loyalty, amongst other brand-building tools. The next section will discuss sensory brand associations as part of sensory marketing.

### **3.5.3 SENSORY BRAND ASSOCIATIONS**

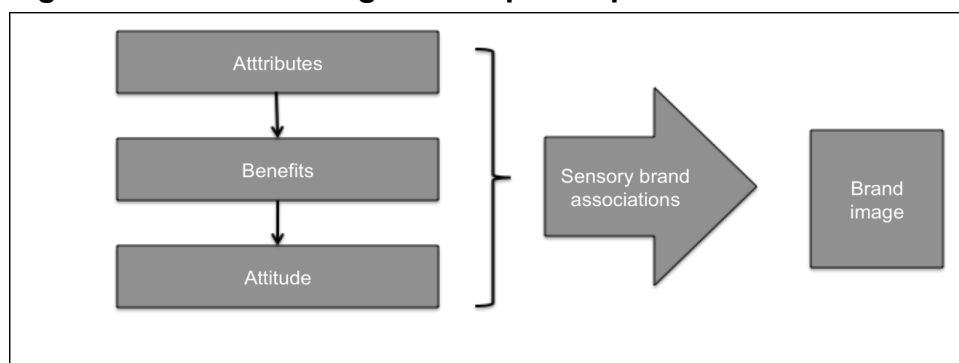
As depicted in figure 3.5, sensory marketing tools consist of sensory brand elements, sensory marketing programs and sensory brand associations. This section focuses on sensory brand associations. Sensory brand associations are the involvement of sensory features in brand associations. Brand associations are the informational nodes which are linked to a brand in consumers’ memories (Chen, 2001:440). Sensory brand associations therefore consist of informational nodes that are experienced through sensory brand features. The aim of sensory brand associations is to evoke brand memories in purchase decisions.

Consumers pass through several decision-making stages in making purchase decisions (see chapter 2). Brand associations assist consumers in processing,

organising and retrieving information, while making a purchase decision (Low and Lamb, 2000:351). Stimulated senses (sensation) that are involved in brand communication can stir up memories that might evoke certain emotions which, together with brand information, can advance consumers to a higher level in the perceptual process (see section 3.2.1). Both information and memory will stimulate consumer imaginations of various brand associations in order to form brand images.

As highlighted above, consumers derive images and meaning of a brand from sensory brand associations. Strong, favourable and unique brand associations differentiate a brand from competitive offerings and create strong brand images (James, 2005:14), which ultimately develop the brand perception. A brand image is the sum of the sensory brand associations, which encompass three types of brand associations, namely, attributes, benefits and brand attitudes (Hsieh and Lindridge, 2005:15). Brand image is defined as a set of perceptions about a brand, as reflected by the brand association held in consumers' memories (Bong Na, Marshal and Keller, 1999:177). The process of developing a brand image is illustrated in figure 3.6.

**Figure 3.6 Brand image development process**



Source: Adapted from Hsieh and Lindridge (2005:15).

Figure 3.6 summarises the process of brand image development that is created by sensory brand associations. As mentioned previously, consumers pass through several stages to build perceptions, and some forms of information are extracted or processed with greater ease than others. In other words, the level of extraction is the ease with which information is retrieved from memory, and it is influenced by the amount of brand information retrievable (Hsieh and Lindridge, 2005:15). The various levels of extraction that are depicted in figure 3.6, namely, attributes, benefits and attitudes, will now be discussed.

The levels of sensory brand association extraction range from attributes, at the lowest level, to benefits and attitudes at the highest level (Grace and O’Cass, 2002:97). Attributes therefore have the lowest level of extraction, followed by attitudes or benefits which typically include details, facts and statistics (for example, the engine size and speed when considering vehicle sales). Brand associations at a higher level of extraction will translate the brand attributes to benefits. Benefits, by way of the same vehicle sales example, can be the engine size where a larger engine size translates into the benefit of greater acceleration. This higher level of extraction, in terms of the benefit of greater acceleration, can then attend to consumer perceptions. Attitudes are formed by, for instance, a consumer need to drive a fast car, and forming a favourable attitude of being in control of a fast car. Ultimately, brand associations in the form of benefits, can assist the formation of perceptions with favourable brand images (Grace and O’Cass, 2002:97).

Thomson *et al.*, (2006:77) state that consumers with favourable brand images, created from brand associations, are likely to be emotionally attached to the brand. Since emotional attachments impact perceptions, one can conclude that a high level of extraction of brand associations can influence consumer perceptions (James, 2005:15). In other words, brand associations in the form of benefits and attitudes, can influence brand perceptions. The brand associations that influence perceptions can involve multiple sensory stimuli as a form of sensory marketing. This study was aimed at investigating the effect of the senses on the perception of a brand.

Sensory brand associations, as a form of sensory marketing, can elicit favourable brand associations by way of stimuli that convey positive associations, via the senses (Gilson and LaLonde, 2005:3). The positive associations will create favourable images which could result in positive emotions. A sensory brand experience therefore activates connections with associations (ideas and feelings) in consumers' minds, and although these connections are not always conscious, they can influence consumers' brand perceptions (Clifton and Simmons, 2003:133). One can therefore conclude that sensory marketing can influence brand perceptions.

Sensory brand associations can influence brand perceptions through sensorially stimulating brand experiences. The sensory brand appeal of a brand is based on brand associations, as determined by the brand position to meet consumer needs (Keller, 2003:45). Sensory brand associations (attributes, benefits and attitudes) are reflections of the brand's positioning, and are the foundations of a consistent brand experience. Despite brand

positioning which determines the execution of brand associations, stimulating brand experiences will also influenced the nature of the brand or the industry. The nature of the brand can be either in the form of consumables (like food and drink) or non-consumables (like electronics or services). Although the senses are automatically involved, given the nature of the product like food or drink, products are more challenging when incorporating the senses (such as smell, taste and touch) into other industries. A conscious decision must be made to incorporate the senses in brand associations that do not normally involve different senses (Van Trijp, 2008:1). Since sensory brand associations are based on brand positioning, which aims to meet consumer emotional needs, the challenge of the product nature can be overcome. Brand positioning can therefore create sensory brand associations that do not have to be verbal or conscious, but rather address the emotional needs of consumers (Clifton and Simmons, 2003:135). For example, a long-distance telephone service can appeal to consumers' emotional needs for comfort. Comfort as an emotional need can be addressed by the association of chocolate or coffee, which usually elicits feelings of comfort and pleasure. The telephone service operator may elicit the same type of feelings and emotions of comfort by using chocolate or coffee to create comfort, and ultimately, the sensory brand association may create favourable brand perceptions.

Sensory brand associations, as a sensory marketing tool, influence brand perceptions through sensorially stimulating brand experiences. Section 3.3 focused on the involvement of the senses in marketing tools, namely, sensory brand elements, sensory marketing programs and sensory brand associations, with the eventual aim of influencing consumer perceptions. The

theory of involving the senses in brand communication to influence perceptions, which has been discussed, is based on sensory science. The next section will focus on sensory science as a platform for sensory research from a consumer's perception point of view.

### **3.6 SENSORY SCIENCE**

According to Lattey *et al.*, (2007:31), sensory science plays an essential part in brand management, which involves managing consumer perceptions. The aim of this study was to measure the effect of the senses on the perception of a brand, and sensory marketing, amongst other methods, has been investigated. Sensory marketing involves the brand management tools with the aim of influencing consumer perceptions. Currently, sensory perceptual studies are mostly within the sensory science discipline (Lawless and Heymann, 1998:363). However, there are many similarities that can be explored in a consumer behaviour context. Bogue, Sorenston and Delahunty (2002:5) also state that consumer sensory perception, especially in food and beverage choice, has come closer to the domain of marketing. This section will focus on sensory science and its methodologies and theories that can be applicable to sensory marketing.

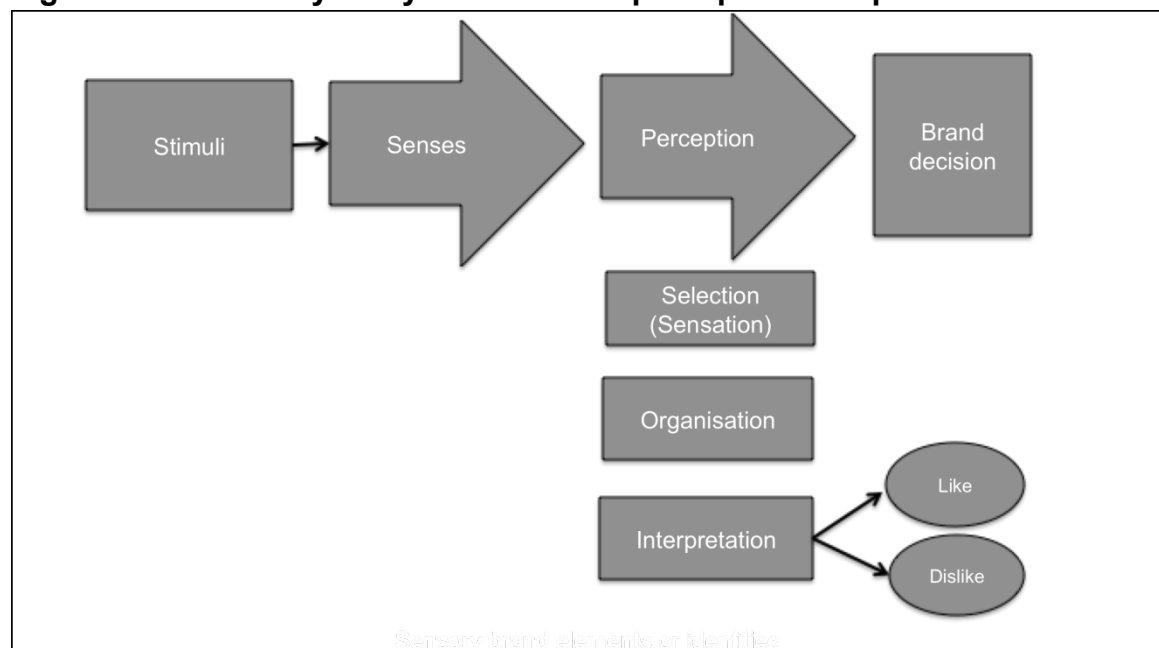
Sensory science evolved from consumer product quality control to product development, and finally, to sensory analysis. Where earlier forms of sensory science were concerned with quality and product development, sensory analysis aims to understand consumer preferences and perceptions of product features. Sensory analysis therefore reports consumer sensory



preferences and the evaluation of competing products from a sensory perspective (Bogue *et al.*, 2002:5). The sensory analysis of a brand commences with the selection of the brand intrinsic of raw materials, process control and quality assurance input (Meilgaard, Bennett and Murray, 2001:224).

Sensory science contributes to brand management as a measure of how consumers perceive products (Ishii *et al.*, 2005:89). Successful brand management is measured by consumers' perceptual interpretation of the brand stimuli. A consumer's perception of a brand, which is the process by which an individual selects, organises and interprets stimuli through the five senses, could therefore be measured by sensory analysis (Bogue *et al.*, 2002:5). The outcome of sensory analysis in the perceptual process is illustrated in figure 3.7.

**Figure 3.7 Sensory analysis measures perceptual interpretation**

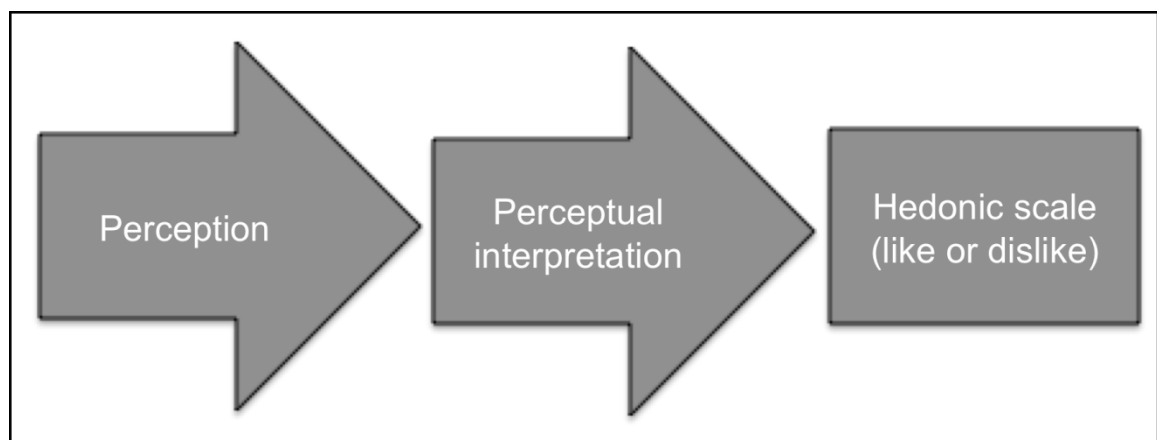


**Source:** Adapted from Sheth *et al.*, (1999:298); Schiffman and Kanuk (2004:199).

As depicted in figure 3.7, perceptual interpretation occurs when a consumer makes a decision as to whether a perceived product is liked or disliked (Schiffman and Kanuk, 2004:199). Sensory analysis aims to measure perceptions of product intrinsics in large part by way of the perceptual interpretation of whether an article is liked or disliked, and the degree thereof. The stimuli which form the sensory attributes could, however, be intrinsic and extrinsic attributes (Schiffman and Kanuk, 2004:188). Intrinsic attributes are related to the product itself, while extrinsic attributes are concerned with the brand name, packaging and other brand elements.

Sensory analysis measures consumer perceptions of a brand by way of a consumer's interpretation of whether it is liked or disliked. The widely-used scale to test like or dislike is the nine-point degree of liking Hedonic scale (Lawless and Heymann, 1998:363). Perceptions of like or dislike, as interpreted by consumers, can be measured by the hedonic scale. The perceptual interpretation model is illustrated in figure 3.8.

**Figure 3.8 The perceptual interpretation model**



Source: Adapted from Cant *et al.*, (2002:219); Schiffman and Kanuk (2004:188).

As depicted in figure 3.8, the hedonic scale measures liking in the perceptual interpretation model. The hedonic scale is derived from the principle of hedonic consumption, which is the use of brands for their intrinsic enjoyment, more specifically, for sensory satisfaction (Sheth *et al.*, 1999:360) (see section 3.3). The hedonic scale is a widely-used scale for measuring consumer perceptions in sensory science (Lattey *et al.*, 2007:32). In terms of food and non-food products, sensory scientists study the perceptions and sensory attributes, namely, appearance, aroma, taste, texture and sound (Lawless and Heymann, 1998:363). Sensory science therefore involves the sensory attributes and the effect thereof on consumer perceptions. This study aimed to investigate the effect of the senses on the perception of a brand. As sensory science involves measuring the effect of sensory attributes on consumer perceptions, the discipline can be used to measure the effect of sensory marketing, amongst other forms of consumer and marketing research.

There are sound sensory analyses methods which can be applied in marketing research. Sensory analysis is mostly applied to new product development, quality assurance and correlation with chemical/physical analyses (Lawless and Heymann, 1998:363). The methods used in sensory analysis can, however, be applied to consumer and marketing research (Van Kleef *et al.*, 2003:387). The difference between consumer sensory analyses and market research, is that consumer sensory analyses are conducted with coded, non-branded products, and market research is achieved, largely, with branded products (Muller, 2007:2). Both disciplines are concerned with consumer perception, but these are performed mostly in isolation (Van Kleef *et al.*, 2003:387). Consumer sensory analysis (in product development) is not influenced by purchase decisions, effects of branding and/or cost factors; it

merely indicates whether or not consumers like the product, prefer it to another product or find it acceptable. The consumer perception of a brand is, however, based on the judgement of a variety of stimuli that are associated with a brand in terms of the intrinsic attributes (such as taste and appearance), or the extrinsic attributes (such as packaging and cost), (Imram, 1999:2005). A number of factors can influence a brand decision, and a product may not necessarily be successful simply because of high degrees of liking (hedonic scores). A product that does not score well hedonically, based on the product intrinsic, will probably fail despite marketing efforts (Muller, 2007:2). In other words, the perception of a brand includes all the aspects, such as intrinsic and extrinsic brand attributes and price. Sensory research may therefore focus on one or more of the product attributes (intrinsic, extrinsic or price). For the purpose of demonstrating the effects of sensory research, an experiment will be conducted. The methodology of the research will be discussed in chapter 4.

### **3.7 CONCLUSION**

The challenging market conditions of improved technology and increased media exposure encourage the focus on the consumer and on consumer needs. The marketing concept concerns the satisfaction of consumer needs, in order to generate brand acceptance (Kotler, 2003:20). Consumers are satisfied when they perceive that their needs have been addressed. Consumer needs are met by perceptions that are formed and based on information that is received from the environment through the senses. The manner in which a consumer processes external information, via the senses,

is a learning process from which a perception will be formed in terms of accepting or rejecting a brand. This chapter focused on the senses in the brand-building process. Marketers need to understand how consumers sense information, how this information is interpreted through consumer learning and given personal meaning, in order to influence perceptions and eventually lead to a brand decision. The process of involving the senses in brand communication is described as sensory marketing. Sensory marketing aims to create emotional bonds between a brand and a consumer, which can lead to a brand decision. Brand communication through sight, sound, smell, taste or feel creates sensory experiences that can elicit emotional attachments in order to influence consumer perceptions (Tan, 2007:350). One way of stimulating multiple senses can be through a combination of stimulated senses, like sight and sound; smell and sound; sound, sight and smell, as opposed to individual senses (Roberts, 2005:107). In conclusion, if multiple senses are involved in brand communication, the emotional attachment will be stronger (Lindstrom, 2005:96).

Sensory marketing is a sensory method of brand building, which follows an integrated approach by engaging consumer senses through the brand and its communication in totality. This study was aimed at investigating the effect of senses on the perception of a brand. The effect of the senses on consumer perceptions can be measured in similar ways that are applied in sensory science. Sensory science measures consumer perceptions of brand attributes (Schmidt, 2007:1). Sensory science consists largely of sensory analysis, which focuses on intrinsic brand attributes. Sensory analysis measures

consumer perceptions of a certain intrinsic product feature, for example, the aroma, texture or flavour of a beverage.

This chapter addressed several elements of sensory marketing. Firstly, the nature of the senses was discussed within the context of consumer perceptions. This was followed by an investigation involving multiple senses in the brand-building process. In order to measure the effect of sensory marketing, sensory science was discussed. Sensory science was mentioned as a starting point for sensory marketing and research methods that are currently applied in sensory research. The purpose of this study was to investigate the effect of the senses on the perception of a brand. The next chapter will address the research methodology applied in order to measure the effect of the senses on the perception of a brand.

---

## RESEARCH METHODOLOGY

---

### 4.1 INTRODUCTION

The primary objective of this study was to investigate whether or not the senses have an effect on perception. In order to narrow the focus of the research and to provide information to a leading distributor of alcohol spirit brands in South Africa, Distell (see chapter 1), Fish Eagle brandy was selected as an alcohol spirits brand to investigate the effect of the senses (smell, sound and sight) on perception.

The objectives of the study were to assess whether or not (1) only enhanced smell effects consumer perception; (2) only sound effects consumer perception; (3) only sight effects consumer perception; (4) enhanced smell and sound effect consumer perception; (5) sight and enhanced smell effect consumer perception; (6) sound and sight effect perception; (7) sight, enhanced smell and sound effect consumer perception.

The previous chapters dealt with consumer behaviour and sensory marketing. The focus of this chapter is on the research methodology of the study.

Marketing research will be discussed broadly, followed by an examination of the marketing research process, and how each of the steps in the process applies to this study.

## **4.2 MARKETING RESEARCH**

Kotler (2003:129) defines marketing research as the systematic design, collection, analyses, and reporting of data and findings relevant to a specific marketing situation. This information links the marketer to consumers and it is used to define marketing opportunities and problems, generate, refine and evaluate marketing actions, monitor marketing performance and to understand marketing as a process (Van der Walt *et al.*, 1996:145). In other words, marketing research is the planning, collection and analysis of data, relevant to marketing decision-making, and the communication of the results of this analysis to management. Managers need information, not raw data. Data analysis therefore involves reducing accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques (Cooper and Schindler, 2003:87).

The data referred to above can be either primary or secondary. Secondary data includes information that has been gathered and that might only be relevant to the topic at hand, such as perception (see chapter 2) and sensory marketing (see chapter 3). Primary data, on the other hand, is collected to solve a particular problem by way of surveys, observations or experiments (McDaniel and Gates, 2001:76). Both primary and secondary data can be classified as qualitative or quantitative. Quantitative research is structured,



systematic and aims to obtain information in a direct, open manner, whereas qualitative research is unstructured, flexible and diagnostic and obtains information in an indirect manner (Du Plessis and Rousseau, 1999:19).

Marketing research therefore provides marketing managers with accurate and relevant information for marketing decision-making. Marketing research plays the following three functional roles in marketing decision-making (McDaniels and Gates, 2001:6):

- *Descriptive function.* Gathers and presents statements of fact.
- *Diagnostic function.* Explains data or actions.
- *Predictive function.* Specifies how to use descriptive and diagnostic research to predict the results of a planned marketing decision.

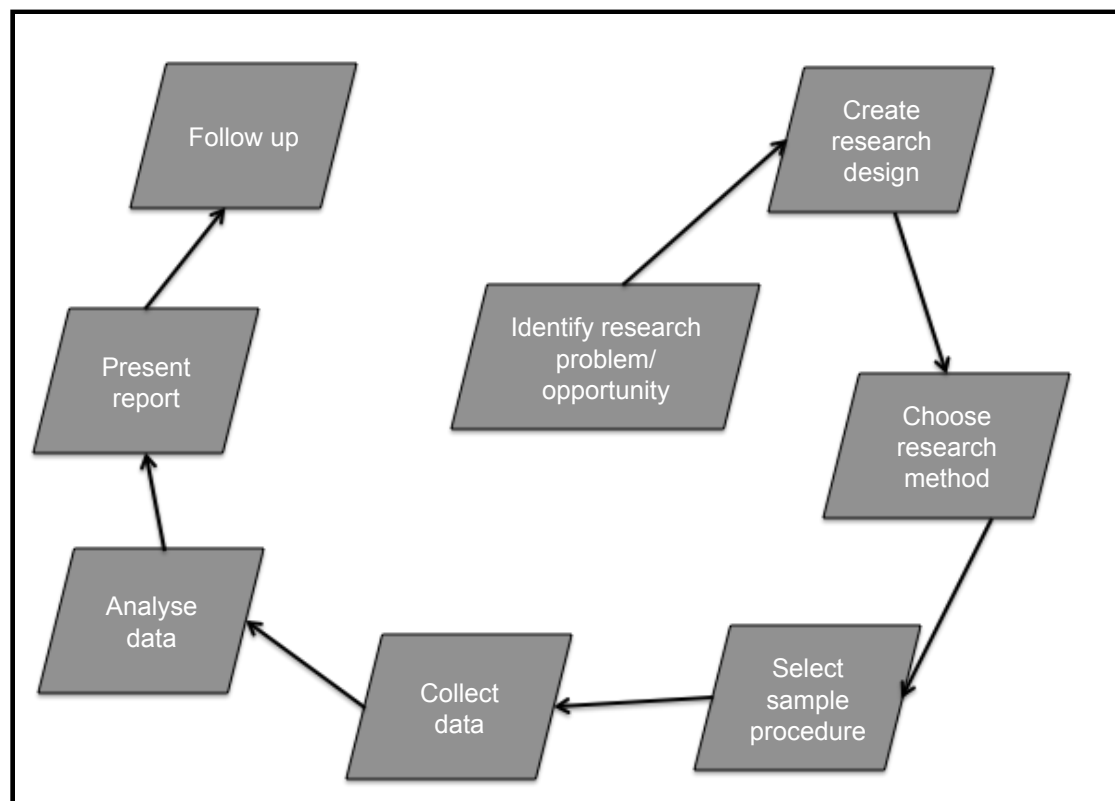
Marketing research is executed with a number of different steps to attain a certain objective (Van der Walt *et al.*, 1996:145). This is known as the marketing research process, and it will be discussed in the following section.

### **4.3 MARKETING RESEARCH PROCESS**

As stated earlier, marketing research is the planning, collection and analysis of data, relevant to marketing decision-making, and the communication of the results of this analysis to management. There are certain steps involved in the marketing process, which should be dealt with as an integrated whole (McDaniel and Gates, 2001:22). The research process (see figure 4.1) begins with the recognition of a marketing problem or opportunity, from which the marketing research objectives are set. This is followed by a plan to reach the

objectives as the research design, which can be either causal or descriptive research (McDaniel and Gates, 2001: 28). The next step is data gathering; the three basic methods of gathering data are survey, observation and experiments. A sample, as a subset of a population, is then drawn from which to gather data. After the data is collected, the next step in the research process is to analyse the data. The analysed data is then presented in a report from which recommendations are made. Finally, in a company setting the research will be followed up by using or not using the recommendations.

**Figure 4.1 The marketing research process**



Source: Adapted from McDaniels and Gates (2001:22).

### **4.3.1 STEP1: IDENTIFYING THE RESEARCH PROBLEM OR OPPORTUNITY**

The first step in the research process is the identification and formulation of the problem to be researched (Van der Walt *et al.*, 1996:147). The marketing problem is based on opportunities or threats that marketing decision makers face. The research problem is formulated by identifying opportunities or threats through a situation analysis which includes the macro-environment, product markets, consumer markets and marketing strategies. Exploratory research was conducted to fully identify and formulate the research opportunity, which is to measure the effect of the senses on the perception of a brand.

Identifying the research problem or opportunity is probably the most important step in the research process (Cooper and Schindler, 2003:64). The marketing problem needs to be clearly formulated in order to achieve relevant results. Once a thorough understanding of the problem is obtained, the marketing problem is translated into the research objective (McDaniel and Gates, 2001:23). The research objective is usually in response to a research question. Research questions provide marketers with the necessary information to solve the research problem or opportunity (Cooper and Schindler, 2003:64). The research problem is the challenge marketers face in influencing consumer perception, with increasing media options and technology. This study attempted to assess the effect of the senses on the perception of a brand. Based on the objective of the study, the following research questions can be drawn:

- Does sound affect consumer perception of a brand?
- Does sight affect consumer perception of a brand?
- Does enhanced smell affect consumer perception of a brand?
- Do enhanced smell and sound affect consumer perception of a brand?
- Do sight and enhanced smell affect consumer perception of a brand?
- Do sound and sight affect consumer perception of a brand?
- Do sight, enhanced smell and sound affect consumer perception of a brand?

Research questions are often answered by hypotheses. A hypothesis is an unproven statement or proposition about a factor or phenomenon that is of interest to the research (Malhorta, 1999:47). The following research questions were tested as hypotheses:

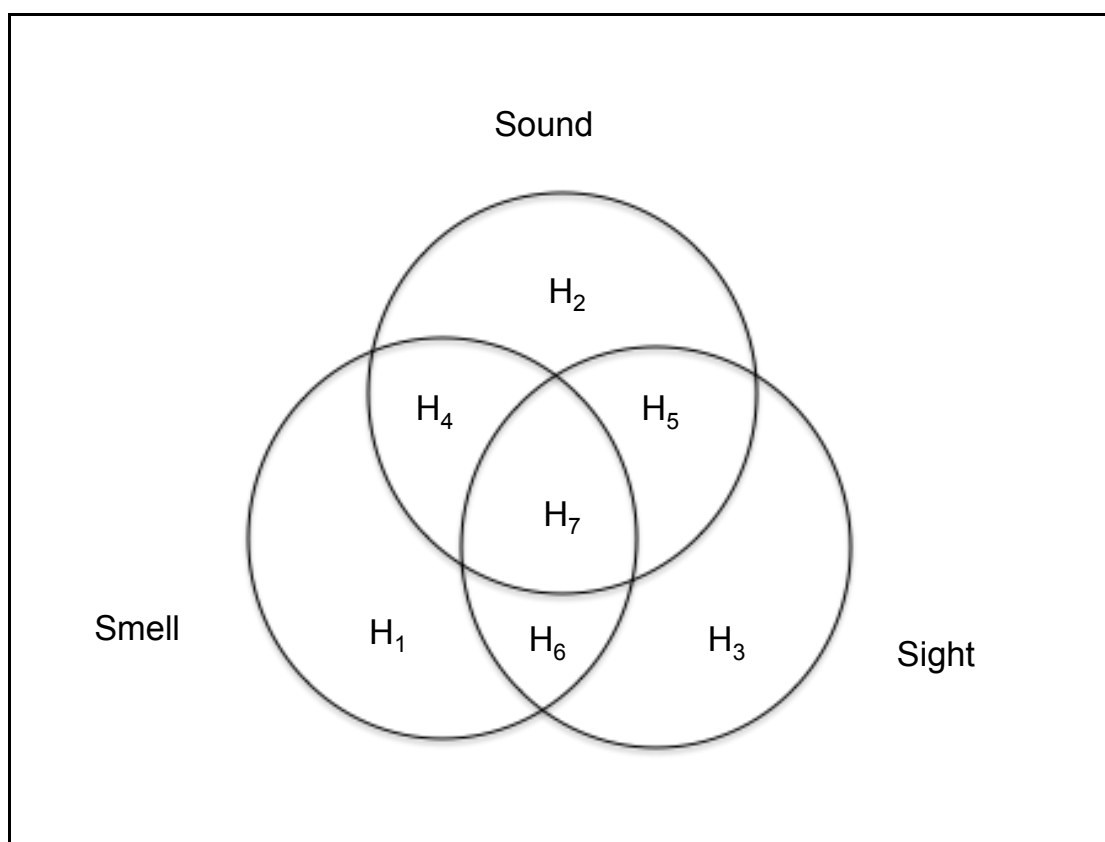
- H<sub>1</sub>: Only enhanced smell affects consumer perception
- H<sub>2</sub>: Only sound affects consumer perception
- H<sub>3</sub>: Only sight affects consumer perception
- H<sub>4</sub>: Sound and enhanced smell affect consumer perception
- H<sub>5</sub>: Enhanced smell and sight affect consumer perception
- H<sub>6</sub>: Sight and sound affect consumer perception
- H<sub>7</sub>: Sight, enhanced smell and sound affect consumer perception

As mentioned in section 1.5.2, the intrinsic brand associations of Fish Eagle relevant to the research include a honey aroma, a pouring sound and a light brandy colour (Thompson, 2008:1). The senses of sight, sound and smell, as independent variables, were stimulated by enhancing the intrinsic brand

associations of Fish Eagle (Snyman, 2008:1). Since the of smell is naturally involved in the consumption of the brand, the intrinsic associations in the form of the honey aroma were enhanced to stimulate the sense of smell, and to asses wether there is an effect on perception (Muller, 2008:1)

The main and interaction effects are depicted in figure 4.2.

**Figure 4.2 Summary of hypotheses**



The first step in the research process describes the research problem, and the following step describes the research design.

#### **4.3.2 STEP 2: CREATE A RESEARCH DESIGN**

The research design is the blueprint for fulfilling objectives and answering research questions (Cooper and Schindler, 2003:81). In this phase of the research process, a research plan is developed for the research study. The objectives identified in the previous step need to be translated into data requirements (Gerber-Nel, 2005:169). Depending on the research objectives, a research study can either be descriptive or causal (Cooper and Schindler, 2003:149). Research that is concerned in answering the questions 'Who', 'What', 'Where' and 'How' is a descriptive study. Causal studies, on the other hand, examine whether or not one variable causes or determines the value of another variable.

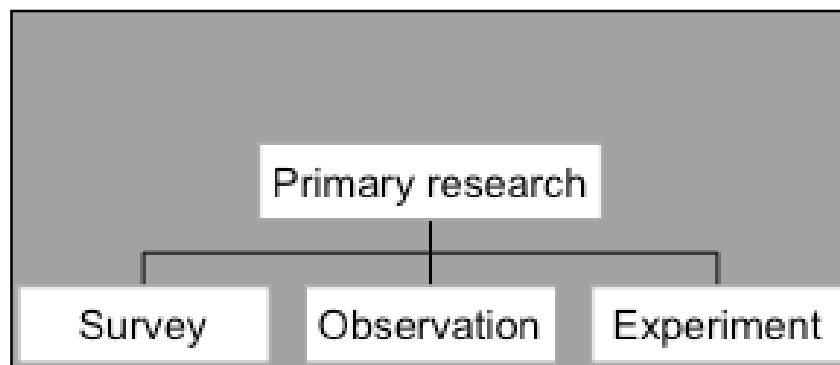
Both types of research studies are concerned with gathering data in order to meet research objectives. The data can be either primary or secondary. Primary data is new data that is collected for the research study, while secondary data is available through relevant literature (Struwig and Stead, 2001:38). Secondary data is obtained through research that is performed to gain an initial understanding of a subject, before collecting primary data (Struwig and Stead, 2001:19). Secondary data provides the necessary background to the undertaken problem or study, and can be obtained through internal sources, government publications, periodicals or book and commercial data (Kotler, 2003:128), and are reflected in chapters 2 and 3 of this study.

As stated previously, primary data is collected for the specific problem in question, and is done only if there is not sufficient secondary data. Methods of conducting primary research are discussed next.

### **4.3.3 STEP 3: CHOOSE THE RESEARCH METHOD**

Researchers can draw from three basic primary research methods, namely, survey, observation and experiment (McDaniel and Gates, 2001:30). These three methods are displayed in figure 4.3, and will be explained in the following sections.

**Figure 4.3 Primary research classification**



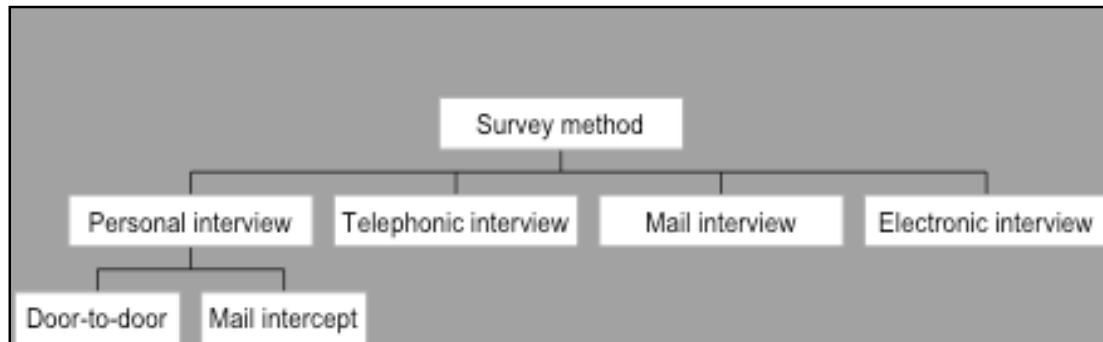
Source: Adapted from McDaniel and Gates (2001:30).

#### **4.3.3.1 Survey**

The most widely used form of data collection is the survey method; this involves the collection of problem-specific data from selected respondents by way of direct or indirect questioning (Du Plessis and Rousseau, 1996:152). Survey research, as illustrated in figure 4.4, can be conducted through various

forms of interviewing, such as personal (door-to-door or mall-intercepts), telephonic, mailing and electronic (Internet).

**Figure 4.4 Classification of survey methods**



Source: Adapted from Cooper and Schindler, (2003:181).

The factors that determine which survey method (see figure 4.4) will be used include sampling precision, budget availability, the need to expose respondents to various stimuli, the quality of data required, the length of the questionnaire, the necessity of having respondents perform certain tasks, the incidence rate sought, the degree of structure of the questionnaire, and the time available to complete the questionnaire (Cooper and Schindler, 2003:203).

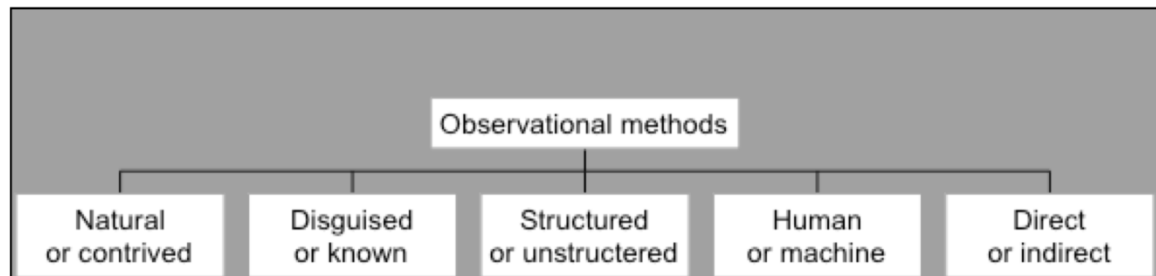
#### **4.3.3.2 Observation**

According to McDaniel and Gates (2001:165), observation research is the systematic process of recording people's behavioural patterns without questioning or communicating with them. In other words, observation is a form of descriptive research that monitors consumer behaviour without them knowing it (Du Plessis and Rousseau, 1999:22). This form of research is often done when consumers are unwilling or unable to give reasons for their behaviour. As illustrated in figure 4.5, there are five dimensions amongst



which observational research varies; it can be natural or contrived, disguised or known, structured or unstructured, human or machine and direct or indirect.

**Figure 4.5 Classification of observational methods**



Source: Adapted from McDaniel and Gates (2001:165).

Experimental research is conducted in this study, and is discussed next.

#### **4.3.3.3 Experiment**

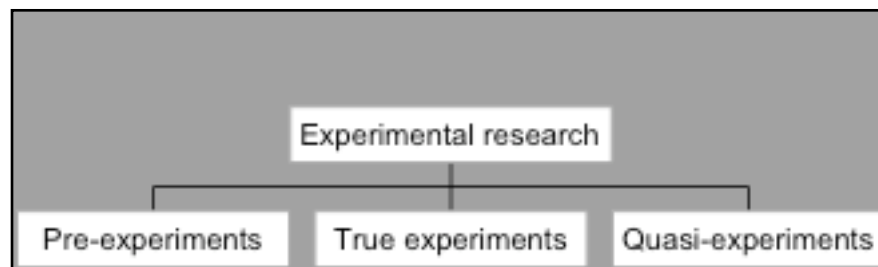
Experimental research is part of causal research. It is defined as a research concept where the researcher has direct control over at least one independent variable, and manipulates at least one independent variable (Du Plessis and Rousseau, 1996:152). Experiments can be conducted in a laboratory or in a field setting (McDaniel and Gates, 2001:239). The advantage of a laboratory is that researchers can control the environment in which experiments are conducted. Laboratory settings often can not appropriately replicate the market place, but are reliable in the sense that these are free from variables that may influence experiments.

This study, which was aimed at investigating the effect of the senses on the perception of a brand, was conducted in a sensory laboratory at Distell, in Stellenbosch. The sensory laboratory is used for the research and development of alcohol beverages (Schmidt, 2008:1). The laboratory is mostly

used for sensory research where influences on the senses can be controlled. Some of the features of the sensory laboratory, relevant to the experiment, include controlling sound through soundproof booths, controlled temperature, free of aroma, and sight control via red light which eliminates product colour.

There are three types of experimental research methods, as displayed in figure 4.6; these are pre-experiments, true experiments and quasi-experiments.

**Figure 4.6 Classification of experimental methods**



Source: Adapted from Cooper and Schindler (2003:447).

Experimental designs vary widely in their power and control contamination of the relationship between independent and dependant variables. According to Cooper and Schindler (2003:435), experimental designs (see figure 4.6) are based on this characteristic of control. The pre-experimental designs prove to be weak in their scientific measurement power; they fail to control adequately the various threats of internal validity. Quasi-experiments on the other hand occur in a natural environment when there is not sufficient control over extraneous variables or the experimental treatment. Therefore, a true experimental design has the ability to address the extent of a set of

independent variables and influence dependant variables, as was used for this study (Struwig and Stead, 2001:9).

This study was aimed at investigating the effect of the senses on the perception of a brand. Fish Eagle as a premium brandy is generally perceived to be of high quality (Thompson, 2008:1). Perceptions on brandy are often influenced by price, where a premium price is perceived to equate to a higher-quality product (Snyman, 2008:1). Price alone is not the only measure of perception, other brand associations experienced through the senses, also contribute to consumer perceptions of a brand (Muller, 2008:1). According Schiffman and Kanuk (2004:199), consumer perceptions of brands are based on brand information of brand intrinsics (colour, flavour and aroma) and, or extrinsics (price, store image, brand image and service environment). Brand perceptions could be measured by either, extrinsic- and intrinsic associations (see section 3.5). There are a wide range of elements involved with extrinsic associations, for example packaging which could stimulate sight and touch. The packaging of Fish Eagle includes a pouring device, embossed glass, labels and a tamper proof aluminium closure (Thompson, 2008:1). When measuring perceptions, any of these elements that stimulate the sense of touch or sight could possibly influence perceptions (van Trijp, 2008:1). These packaging elements would therefore need to be seperated to determine which element influenced perception. For practicality reasons the extrinsic attributes were not focused on in this study. With regard to Fish Eagle brandy, sensory cues that can influence consumer perceptions were investigated (Snyman, 2008:1). The sensory cues included the colour of the brandy, the brandy pouring sound and the enhanced honey aroma.

In a true experimental design, the researcher can randomly assign test units and treatments to experimental groups (Malhotra, 2004:213). A classic true experimental design is the factorial design (Klemz, 2008:1). A factorial design is used to evaluate two or more factors simultaneously. The advantages of factorial designs over one-factor-at-a-time experiments are that they allow interactions to be detected (Easton and McColl, 2009:1). In factorial designs, a factor is a major independent variable. The experimental treatments are combinations of levels of the factors. In this study a factor design was applied with three factors, namely, sight, smell and sound. Table 4.1 illustrates each factor and their levels.

**Table 4.1 Factorial design for sensory experiment**

<b>A: Smell</b>	<b>B: Sound</b>	<b>C: Sight</b>
Enhanced smell	Pouring sound	Visible colour
No enhanced smell	No pouring sound	No colour, used red light

Table 4.1 illustrates the three factors involved in the sensory experiment of this study, in other words, a three factorial design. Each factor has two levels, therefore a 2 x 2 x 2 factorial design. Since the purpose of this study was to determine whether the senses have an effect on the perception in the case of a brandy, each variable (i.e. the sum of the three identified senses, as well as each individual sense) needed to be assessed (Klemz, 2008: 1).

The independent variables were evaluated by a common denominator to measure the effect on perception. The common denominator was determined

by the functional properties of the brand (Fish Eagle), which is intended for physical consumption, or for the use of intrinsic enjoyment (Muller, 2008:1). The evaluation of a consumable product is performed through taste as one of the senses (Lawless and Heymann, 1998:363). In other words, the perception of a consumable brand is measured through taste. In this study, taste as a sense (based on brand intrinsic attributes) was used as a common denominator for the measurement of perception (Muller, 2008:1). Taste was thus the dependent variable, in conjunction with the sensory stimuli, sight, sound and smell, as independent variables.

The independent variables that were measured by the dependent variable, had several factors that could effect the perception of a brand. To determine whether or not the senses influence the perception of a brand, a factorial experimental design, where variables are manipulated to evaluate any possible change in consumer behaviour, was applied (Zikmund, 2006: 281). To ensure that all other controllable factors stay the same and focus is only on the senses, the experiment was performed in Distell's sensory laboratory. These facilities have 12 individual tasting booths that are all sound proof. There are small windows in each booth from which the tasting samples were served, which means that the experiment is free from interruptions. The experiment was conducted by means of a taste test. As discussed already, taste was used as a measure of perception due to the consumable nature of the product. The tasting glasses were filled with 40ml brandy samples, of which 20% was alcohol by volume. Brandy is suitable for consumer testing at 20% alcohol by volume, blended with distilled water (Schmidt, 2008:1). Respondents had to indicate their degree of preference for the brandy sample

by completing a questionnaire. Certain senses were manipulated in these experiments in order to measure the influence of stimulated senses on the perception (in this case taste) of a brand.

In the factorial experiment, each factor consisted of a particular consumer sense, and each sense had two levels (Klemz, 2008:1). The variations of the three factors (or senses) were as follows:

- *Sight*. Sight was controlled, on the one hand, by making the colour of the brandy appear colourless with the use of a red light. On the other hand, the original colour of brandy was visible in normal light conditions. The colour of brandy is often indicative of the age of a brandy (Snyman, 2008:1), where a darker colour is perceived to be more matured than a lighter coloured brandy. Through the removal of colour from the experiment, a certain level of control, in terms of sight, was applied to measure the effect of sight on perception. Different levels of sight as a factor were found with a red light, which removes the appearance of the colour of the brandy as it is seen in natural light.
- *Enhanced smell*. Here, the sense of smell was enhanced by a honey scent or normal aroma, with no added scent, as a stimulus. The factor of smell is therefore enhanced, either through a honey aroma sniff sample, as a reference, or with no aroma. The honey aroma, as an intrinsic brand attribute, may influence perceptions (Thompson, 2008:1). The honey scent is selected as a result of the dominant honey aroma on the brandy's nose profile (Snyman, 2008:1). It is believed that consumers are more aware of certain aroma profiles, once they are prompted or

they have a reference sample (Muller, 2008:1). The honey reference sample was therefore used to smell, prior to tasting and evaluating the brandy.

- *Sound*. The sense of sound was manipulated with the sound of pouring liquor into a glass and with no pouring sound. The pouring is used for aural stimulation. In brand communication, the pouring sound is often associated with a consumer need (Gilson and LaLonde, 2005:801) of thirst, for example, and the brand is then perceived to be capable of satisfying this need as a refreshing beverage. Sound, as a factor, was performed either through exposing respondents to the pouring sound, prior to evaluating the brandy, or with no sound.

As discussed, consumers evaluate brands based on the senses that are stimulated and the association consumers make with the brand (see section 3.3.3). The stimulus that is received via the senses provides the basis for a brand perception (Schiffman and Kanuk, 2004:188). The perception of a brand is based on a consumer's judgement of a variety of stimuli that are associated with a brand, in terms of intrinsic attributes and extrinsic attributes, such as packaging and cost (Imram, 1999:2005). In this study, taste as a sense (based on brand intrinsic attributes) was used as a common denominator for the measurement of perception (Muller, 2008:1). With the aim of investigating the effect of senses on the perception of a brand, certain senses were thus stimulated. Sensory stimulation, is the intentional incorporation of stimulating more senses through direct brand experiences (see section 3.4), consumers are intrigued by brands that intensely stimulate their senses (James, 2005:14). As mentioned, the intrinsic brand associations

are experienced through consumption and to create a noticeable effect on perception, some forms of stimuli need to be enhanced (Van Trijp, 2008:1). For example, honey is naturally part of the aroma profile of Fish Eagle, in order for a consumer to recognise or make the association with honey, this smell needs to be enhanced (Snyman, 2008:1).

The experiments, depicted in table 4.1, were judged by a consumer's response to the taste samples by a self-administered questionnaire. Since a true experiment was performed, a suitable questionnaire was designed (see annexure A). The purpose of the questionnaire was to measure a respondent's perception (i.e. taste) of the brandy samples, in terms of degree of like or dislike, and the sensory attributes thereof. Consumers had to judge the brandy samples by completing the questionnaire.

Perception that is measured through taste is done by way of a degree-of-liking scale (Van Trijp, 2008:1); the most common degree-of-liking scale is the nine-point hedonic scale (Lawless and Heymann, 1998:363). The Hedonic scale is mostly used in consumer sensory testing and was proven to be reliable and valid (Muller, 2008:1). The hedonic scale is derived from hedonic consumption, which refers to the use of brands for their intrinsic enjoyment, more specifically, for sensory pleasure (Sheth *et al.*, 1999:360). In other words, hedonic consumption is the use of brands that give the consumer pleasure via the senses, and that in turn create emotional arousal.

Respondents were prompted to indicate which term best described their perception towards the samples which were in front of them, using the scale



with the following nine categories: like extremely, like very much, like moderately, like slightly, neither like nor dislike, dislike slightly, dislike moderately, dislike very much, dislike extremely. A sample of the Hedonic scale that is used in the questionnaire is illustrated in figure 4.2 below.

**Table 4.2 Sample of the hedonic scale**

How do you like the brandy sample?	
9	Like extremely
8	Like very much
7	Like moderately
6	Like slightly
5	Neither like nor dislike
4	Dislike slightly
3	Dislike moderately
2	Dislike very much
1	Dislike extremely

Source: Adapted from Lawless and Heymann (1998:363).

As depicted in table 4.1, various experiments were performed to manipulate perceptions by stimulating the senses. The experimental design illustrates the stimulus, for the purpose of this study, the experimental design was:

- EG: *R*    *X*    *O*<sub>1</sub>
- EG: *R*    *X*    *O*<sub>2</sub>
- EG: *R*    *X*    *O*<sub>3</sub>
- EG: *R*    *X*    *O*<sub>4</sub>
- EG: *R*    *X*    *O*<sub>5</sub>
- EG: *R*    *X*    *O*<sub>6</sub>
- EG: *R*    *X*    *O*<sub>7</sub>
- CG: *R*    *X*    *O*<sub>8</sub>

where:

EG	= Experimental group exposed to the treatment
O <sub>1</sub>	= Smell
O <sub>2</sub>	= Sound
O <sub>3</sub>	= Sight
O <sub>4</sub>	= Sound and smell
O <sub>5</sub>	= Smell and sight
O <sub>6</sub>	= Sound and sight
O <sub>7</sub>	= Sight, smell and sound
O <sub>8</sub>	= No treatment (Control group)
CG	= Control group not exposed to the treatment
R	= Randomisation

As illustrated, several factors (sight, sound and smell) are involved in the measurement of respondents' perceptions towards brandy. The various factors were tested, and individually, are described as the *main factors*, and in combination, as *interactions*. The main factors and interactions were performed as seven different experiments, and a control group was used as well. Senses that were not involved in experiments were controlled by not stimulating those particular senses. Experiments EG1 - EG8 were therefore conducted in the following way:

- EG1 measured the main effect of smell on the perception of the brandy. Respondents indicated their degree of like or dislike of the brandy sample after smelling the honey aroma. Other senses were

controlled in that there was silence and the red lights were on to eliminate the brandy colour.

- EG2 was a main effect, which measured the effect of sound on the perception of the brandy. Respondents tasted the brandy to indicate their degree of like or dislike of the brandy, after being exposed to the pouring sound of brandy and with the remaining senses controlled by the red lights were on to eliminate the brandy colour, and no aromas present.
- EG3 was a main effect to measure the effect of sight on the respondents' perceptions of the brandy. Respondents indicated their degree of like or dislike of the brandy sample, after evaluating the colour of brandy under natural light conditions. The senses of smell and sound were controlled, by no stimulation of aromas or pouring sounds.
- EG4 was a two-way interaction with smell and sound. Respondents were exposed to the pouring sound while smelling the honey aroma as a reference, and had to indicate their degree of like or dislike after tasting the brandy sample. Using red light to eliminate the brandy colour from the experiment controlled sight.
- EG5 was a two-way interaction of smell and sight. Respondents had to smell the honey aroma while the red lights were off, thus making the brandy colour visible. The brandy sample was then tasted and

respondents indicated the degree of like or dislike. Sound was controlled by silence.

- A two-way interaction of sound and sight was performed in EG6. In this experiment, respondents had to indicate their degree of like or dislike of the brandy sample under natural light conditions, so that they could evaluate the colour of the brandy while being exposed to the pouring sound as a stimulus. Once again, respondents indicated their degree of like or dislike by tasting the brandy. Smell was controlled by no aroma stimulation.
- EG7 was a three-way interaction with sight, sound and smell. Respondents had to indicate their preference by tasting the sample of brandy, after being exposed to the sound of brandy pouring, an enhanced honey aroma and the original colour of the brandy. All three senses (sight, smell and sound) were therefore stimulated by the experimental treatment, and this experiment had a multi-sensory impact on the evaluation of a product.
- EG8 was a control group where no stimulus was involved in a natural environment. Respondents simply tasted the sample and there was no visible colour of the brandy, no sound effects and no enhanced smell. Respondents evaluated the taste of the brandy and completed the degree of liking questionnaire.

The above-mentioned research method step is part of the marketing research process (see figure 4.1). The research of this study was done as an experiment by using a subset of a larger population. Certain measures were taken to find a suitable sample for this study, and the next section will focus on sampling.

#### **4.3.4 STEP 4: SELECT SAMPLE PROCEDURE**

The sample is essentially part of the research design, but it is treated as a separate step in the research process (see figure 4.1). A sample is a subset of a larger population (McDaniel and Gates, 2001:31). A population is the total collection of elements about which one aims to draw some conclusions (Cooper and Schindler, 2003:179). The total adult population in South Africa is 31.3 million (AMPS, 2008:11).

For this study, a subset of the total South African adult population was required, which narrowed the number down significantly. The population relevant to this study are spirit consumers over the legal drinking age of 18. Firstly, by South African law, a spirit consumer should be over the age of 18. Secondly, spirit consumers are classified as those people who frequently include spirits in their alcohol-drinking repertoire at least once a month (Snyman, 2008:1). Spirits include brown spirits, such as brandy, whisky, rum and other white spirits, such as vodka, cane and gin. Within the spirits category, consumers can also be classified by their preference for a specific spirit type. For example, brandy drinkers are classified as consumers who frequently include brandy in their drinking repertoire. Even though consumers

may have preferences for certain spirit types, there are often shifts in the brown and white spirit categories (Snyman, 2008:1).

Brown spirits, like brandy and whisky, are the largest spirit volume contributors in South Africa (TNS research surveys, 2008:1). Even though the whisky category is currently growing faster than any other spirit category in South Africa, brandy still contributes to the largest share of spirit volumes (Snyman, 2008:1). The shifts in spirit categories are usually ascribed to trends such as following premium brands, internationalisation and economic pressures (TNS research surveys, 2008:1). There are similar shifts between brown and white spirits, where consumers under economic pressures shift from brown to white spirits (Snyman, 2008:1). Due to consumer preference shifts for spirit types, brandy and other spirit categories were included in the sample.

The sample therefore included alcohol spirit consumers, which has a different consumption style to other alcoholic beverages. The spirits category is unique in its consumption style, due to the high alcohol by volume level. South African legislation requires an alcoholic spirit to have a minimum of 38% alcohol by volume (Snyman, 2008:1). This high alcohol volume encourages a drinking style of short drinks over ice or long mixed drinks. The alcohol spirit drinking style is different to that of beer, which is often consumed from the packaging (bottle or tin). Packaging often serves as a brand element or brand-building tool, and one can conclude that beer consumers have more interaction with their particular brand of beer than spirit consumers have with their spirit brands. The higher level of brand interaction of beer can have more

influence on consumer perceptions of beer brands. Spirits, on the other hand, may have less opportunity than beer to influence perceptions, and the relevance of involving more senses in brand communication can be a way of influencing brand perceptions.

The population therefore included adults (over 18 years of age) who drink alcohol spirits in South Africa. The sample selection procedure will now be discussed. In this study, a sample was drawn, firstly, by determining who was to be sampled, how large a sample was needed, and finally, how the sampling units were to be selected.

#### **4.3.4.1 Sample frame**

The sampling frame is a list of all the sampling units, about which a conclusion is to be drawn (Struwig and Stread, 2001:109). The sampling frame is used to identify sampling units, which is the element about which information is sought (Struwig and Stread, 2001:109). When determining a sample, it is important for a researcher to select sample units that represent the population of interest. Examples of sampling frames would be telephone directories, class or lists. In this study, no sampling frame was available to the researcher, and as a result, only non-probable sample selection methods were available to draw the sample. The sampling method will be explained next.

#### **4.3.4.2 Sampling method**

The sampling method is dependant on the objectives of the study, available budget, time limitations and the nature of the problem under investigation

(McDaniel and Gates, 2003:333). There are two types of sampling methods, namely, probability and non-probability samples. Probability samples have a strong likelihood of selection, as opposed to non-probability samples in which certain subsets might have no chance of being selected (William, 2006:1). In other words, non-probability does not involve random selection and probability does. Probability samples include systematic sampling, cluster sampling, simple random sampling and stratified sampling (McDaniel and Gates, 2001:336).

Non-probability samples include convenience sampling, judgement sampling, quota sampling and snowball sampling (Struwig and Stread, 2001:116). This study used non-probability sampling, due to the absence of a sample frame (Diamantapoulos and Schlegelmilch, 2002:95). More specifically, a convenience sampling method was used to select the sampling units. A convenience sample was used on the basis of availability of sampling units (respondents) that were accessible and articulate (William, 2006:1). Spirit consumers from Stellenbosch were used in this study, due to their availability. The screening question was whether respondents considered themselves to be alcohol spirit consumers. The sample therefore consisted of alcoholic spirit consumers over eighteen years of age.

#### **4.3.4.3 Sample size**

The sample size refers to the number of respondents that should be included in the research. The size of the sample will influence the sampling error, which is the difference between the sample value and the true value of the



population mean (McDaniels and Gates, 2001:354). Ceteris Paribus, the larger the sample the lower the sampling error. The quality of the data is therefore dependant on the size of the sample.

For the purposes of this study, the Bayesian approach to sample size determination was used. This approach provides a formal procedure for selecting the sample size which maximizes the difference between the expected payoff of sample information, and the estimated cost of sampling (Malhorta, 1999:360). According to Klemz (2008:1), a minimum number of 24 respondents per cell are required for factorial experiments. Using this approach, a sample of 240 alcohol spirit consumers, from the Western Cape, was drawn. There are several ways to determine the sample size, but in order to draw a statistically significant conclusion in sensory evaluation, it is suggested that a minimum of 100 consumers are tested (Muller, 2007:1; Lawless and Heymann, 1998:363). The sample size was therefore appropriate for this study.

The sample for this study can be summarised in table 4.3:

**Table 4.3 Sample of this study**

Steps	Description
1. Define the population	Spirit consumers over the age of 18
2. Specify the sampling unit	Spirit consumers in the Western Cape
3. Specify the sampling method	Non-probability sampling - convenience method
4. Determine the sample size	240 respondents
5. Select the sample	Consumers in Stellenbosch

The above-mentioned sampling procedure ensured respondents for an experiment that provided data to investigate the effect of the senses on the perception of a brand. The next section will discuss data collection.

#### **4.3.5 STEP 5: COLLECT DATA**

An experiment was conducted from which to collect data. The experimental method of research focuses on cause-and-effect relationships between variables (Struwig and Stread, 2001:42). In order to collect the data, respondents were given self-administered questionnaires by trained fieldworkers. The design of a questionnaire is influenced by the type of research being conducted (exploratory, descriptive or causal), and the way in which it is conducted, by way of observation, experiments or survey research (an example of a questionnaire is included as an addendum).

Data collection, as the fifth step, typically begins with pilot testing. Pilot testing of questionnaires helps to identify weaknesses in design and instrumentation (Cooper and Schindler, 200:86); this allows for time to improve the questionnaire, prior to data collection. The questionnaire was pilot tested amongst 25 respondents, and revised where necessary. The data was then finally collected by trained fieldworkers, within 5 days, to ensure reliability (Schmidt, 2008:1).

#### **4.3.6 STEP 6: ANALYSE DATA**

The data that is collected during primary research needs to be converted into information. Data analysis usually involves reducing accumulated data to a manageable size, developing summaries, looking for patterns and applying statistical techniques (Cooper and Schindler, 2003:87). This information needs to answer the research question.

When data is processed, it is first prepared and then analysed (Gerber-Nel, 2005:168). Data preparation is the process of extracting data from questionnaires so that it can be read and manipulated by computer software. During data preparation, the data is validated, edited, coded, entered and then cleaned (Struwig and Stread, 2001:150). Essentially, number codes are assigned to represent each response to each question. These numerical codes are entered into the computer and analysed. Statistical Package for the Social Sciences (SPSS), a statistics software program, was used to perform the data analyses. After validating and editing each questionnaire, the data was entered directly into SPSS.

There are four widely-used classification scales to measure data, namely, nominal, ordinal, interval and ratio. The hedonic scale can be classified under interval data. Interval scales are amenable to descriptive tests such as arithmetic mean, standard deviation and correlation coefficients, and statistical tests such as t-tests and F-tests (McDaniel and Gates, 2001:252). Descriptive statistics are used to describe data, and inferential statistics are used to

determine significance levels (Gerber-Nel 2005:186). Descriptive and inferential statistics will be discussed next.

#### **4.3.6.1 Descriptive statistics**

Descriptive statistics provide statistical summaries of data. Descriptive statistics use measures of central tendency, skewness and kurtosis to describe a large amount of data (Struwig and Stread, 2001:158). Descriptive statistics relevant to this study are as follows:

- *Mean*. The mean is the arithmetic average. In other words, the sum of the value of all the observations, divided by the number of observations (McDaniel and Gates, 2001:410).
- *Mode*. This is the value that occurs most frequently.
- *Standard deviation*. This refers to the spread of values in the dataset, and it is the square root of the sum of the squared deviations from the mean, divided by the number of observations, minus one (McDaniel and Gates, 2001:412).

#### **4.3.6.2 Inferential statistics**

Inferential statistics use samples of observations to make inferences that are found in a population, on the basis of the sample data (Struwig and Stread, 2001:159). A basic tenet of statistical inference is that it is possible for numbers to be different in a mathematical sense, but not significantly different

in a statistical sense (McDaniel and Gates, 2001:413). A difference has statistical significance if there is sufficient reason to believe that the difference does not represent random sampling fluctuations alone (Cooper and Schindler, 2003:521).

For the purpose of this research, a significance level of 0.05 was considered important. The selected level of significance can be compared to the p-value. The p-value is the exact probability of getting a computed test statistic that was largely due to chance (McDaniel and Gates, 2001:427). The lower the p-value, the lower the probability that the observed result occurred by chance. The following significant tests were used in this study:

- *Chi-square*

Chi-square is used to decide whether the frequency distribution can be resigned with an assumed theoretical distribution, when a reasonable number of observations of a variable are represented in a one-way contingency table (Steyn *et al.*, 1999:549). The chi-square ( $\chi^2$ ) statistical test checks statistical differences by examining patterns of responses, within and between categorical random variables (Wegner, 2000: 550).

- *Analysis of variance (ANOVA)*

The hedonic scale that is used in the research can be analysed with the use of parametric statistics, like analysis of variance (ANOVA). It is

possible to convert the hedonic results to paired preference or rank data (Lawless and Heymann, 1998:363). ANOVA is used to compare the means of various groups. It determines whether or not groups or treatments differ significantly, by using the independent single group variable, called a factor, and a continuous dependant variable as the measure (Cooper and Schindler, 2003:557). An F-value and a p-value are derived from conducting an ANOVA. A p-value of 0.05 or less is considered significant for the purpose of this study. The research conducted in this study was done as a factorial experiment, and included several factors (see table 4.1).

#### **4.3.6.3 The effect of the senses on the perception of a brand**

As discussed earlier, brands that appeal to multiple senses can have increased positive effects on perceptions. To test this statement, the following research question was drawn: “Do the senses affect the perception of a brand?” To measure the affect of the senses on the perception of a brand, factorial research was conducted. The analysis of factorial experiments, applicable to this study, will now be discussed.

An ANOVA is often interested in the effects of a single factor. A one-way (single factor) ANOVA has a single *main effect*. The *F*-test, for a main effect, tests the hypothesis that the means differ. In a design with more than one factor, such as a 2 x 2 x 2 factorial design, one includes *interaction* effects. An interaction between two factors (a two-way interaction) is present if the effects of the factors are not independent (Baguley, 2006:1). The results interpreted

will depend on the significance of interactions. For example, an insignificant two-way interaction will generally be ignored, and the two independent main effects will be interpreted; if a two-way interaction is significant, it may not make sense to interpret the main effects.

As mentioned already, the ANOVA test calculates both an  $F$ -value and a  $p$ -value. A  $p$ -value of 0.05 or less is considered significant (see section 4.3.6.2). The  $F$ -ratio is the ratio of the variance estimate for the treatment effect to the variance estimate of the error. In an ANOVA, these variance estimates are called mean squares and are calculated by dividing the sums of squares for a source of variation, by its degrees of freedom (Easton and McColl, 2009:1). The mean square error will depend on the factor under consideration, whether it is independent measures (between subjects) or repeated measures (within subjects). For a factorial design, the mean square error depends on which factor is under consideration (William, 2006:1). In a mixed ANOVA design, there is at least one repeated measures factor and at least one independent measures factor. The main effects for the repeated measures (within subjects) factors should use a non-pooled error term.

The ANOVA model for the analysis of factorial experiments is formulated as shown next. Assume a factorial experiment in which the effect of two factors,  $A$ ,  $B$  and  $C$ , (see table 4.1) on the response is being investigated. Let there be  $n_a$  levels of factor  $A$ ,  $n_b$  of factor  $B$  and  $n_c$  levels of factor  $C$ . The ANOVA model for this experiment can be stated as (Reliasoft, 2008:1):

$$Y_{ijkl} = \mu + \tau_i + \delta_j + \zeta_k + (\tau\delta)_{ij} + (\tau\zeta)_{ik} + (\delta\zeta)_{jk} + (\tau\delta\zeta)_{ijk} + \varepsilon_{ijkl}$$

where:

- $\mu$  represents the overall mean effect.
- $\tau_i$  is the effect of the  $i$ th level of factor  $A$  ( $i = 1, 2, \dots, n_a$ ).
- $\delta_j$  is the effect of the  $j$ th level of factor  $B$  ( $j = 1, 2, \dots, n_b$ ).
- $\zeta_k$  is the effect of the  $k$ th level of factor  $C$  ( $k = 1, 2, \dots, n_c$ ).
- $(\tau\delta)_{ij}$  represents the interaction effect between  $A$  and  $B$ .
- $(\tau\zeta)_{ik}$  represents the interaction effect between  $A$  and  $C$ .
- $(\delta\zeta)_{jk}$  represents the interaction effect between  $B$  and  $C$ .
- $(\tau\delta\zeta)_{ijk}$  represents the interaction effect between  $A$ ,  $B$  and  $C$ .
- $\varepsilon_{ijkl}$  represents the random error terms (which are assumed to be normally distributed with a mean of zero and variance of  $\sigma^2$ ).
- the subscript  $k$  denotes the  $m$  replicates ( $k = 1, 2, \dots, m$ ).

The statements for the alternative hypotheses tests can be formulated as follows:

- H<sub>1</sub>:  $(\tau)_i \neq 0$  for at least one  $i$
- H<sub>2</sub>:  $(\delta)_j \neq 0$  for at least one  $j$
- H<sub>3</sub>:  $(\zeta)_k \neq 0$  for at least one  $k$
- H<sub>4</sub>:  $(\tau\delta)_{ij} \neq 0$  for at least one  $ij$
- H<sub>5</sub>:  $(\tau\zeta)_{ik} \neq 0$  for at least one  $ik$
- H<sub>6</sub>:  $(\delta\zeta)_{jk} \neq 0$  for at least one  $jk$
- H<sub>7</sub>:  $(\tau\delta\zeta)_{ijk} \neq 0$  for at least one  $ijk$



The results of the hypotheses are discussed in chapter 5. The main objective of this study was to measure the effect of the senses on the perception of a brand. This was done, firstly, by measuring the influence of individual senses (main effects), and secondly by means of the influence of multiple senses (interactions) on the perception of a brand. To ensure that the findings of the above-mentioned model are trustworthy, the responses obtained from the questionnaire must be reliable and valid. These factors will be discussed in the next section.

#### **4.3.6.4 Reliability and validity**

When conducting a study, one should report the extent to which instruments, employed in the study, have reliable and valid scores and whether or not the research design is valid (Struwig and Stread, 2001:130). Failure to address reliability and validity can result in a project's findings as being worthless. These aspects will now be discussed.

- Reliability

Reliability is the degree to which measures are free from random error, and therefore provide consistent data (McDaniel and Gates, 2001:254). A measurement is reliable if it does not change when the concept, being measured, remains constant in value. There are several ways to assess reliability. These include the following (McDaniel and Gates, 2001:255):

- *Test-retest reliability*. In this reliability measure, the same instrument is used a second time under relatively similar conditions.
- *Equivalent form reliability*. This approach uses two similar instruments to measure the same object, during the same time period.
- *Internal consistency reliability*. This reliability measure compares different samples of items used, to measure a phenomenon during the same period.

To ensure reliability in this study, a test-retest reliability measure was conducted. A test group was included in the experiment, where the effect of smell on perceptions was repeated with a different group. Similar to the remainder of the experiment, 24 respondents had to indicate their degree of like or dislike of a brandy sample, after smelling the honey aroma. It was found that there was no significant difference ( $p < 0.05$ ) between the test group and the actual experiment, and the measuring instrument was thus reliable.

- Validity

The validity of a measuring instrument's score is the extent to which the instrument measures what it is intended to measure (Struwig and Stread, 2001:138). One widely-accepted classification of validity consists of three major forms, and these are discussed next (Cooper and Schindler, 2003:231):

- *Content validity.* Content validity of a measuring instrument is the extent to which it provides adequate coverage of a concept being studied. This test is often determined by expert judgement or a panel of raters to judge the domain of the construct.
- *Criterion-related validity.* This form of validity reflects the success of the measures used for prediction or estimation. It measures whether or not the measurement scale performs as expected, in relation to other variables selected as meaningful criteria.
- *Construct validity.* Construct validity is the degree to which a measure confirms a hypothesis, created from the theory of the constructs being studied. It involves understanding the theoretical foundations underlying the obtained measurements (McDaniel and Gates, 2001:261).

In this study, content validity was ensured through the hedonic scale (Lawless and Heymann, 1998:363). According to Van Trijp (2008:1) the hedonic scale is valid to measure perception. Validity measures also include factor analysis which forms part of the construct validity. All computational techniques have the objective of reducing many variables to a manageable number and which belong together, and have overlapping measurement characteristics (Cooper and Schindler, 2003:635).

In conjunction with the validity of the measuring instrument, an experiment has different measures in place to control validity (see section 4.3.3.3). There are two types of validity, internal and external validity. Validity refers to the extent to which the conclusions drawn from the experiment are true and valid

to a larger population of interest (Hair, Bush and Ortinau, 2006:276). These are discussed next:

- External validity

External validity is the accuracy with which experimental results can be generalised beyond the experimental subjects (Zikmund and Babin, 2007:275). In other words, can the results be generalised beyond the experimental situation? And if so, to what populations, settings, timeframes, independent variables and dependant variables can the results be projected (Malhorta and Birks, 2006: 264)? Laboratory experiments are usually associated with low external validity, as the limited set of experimental conditions, which hold all else constant, do not adequately represent all the influences that exist in the real world (Zikmund and Babin, 2007:275). There is usually a trade-off between internal and external validity, where this experiment rates higher on internal validity than on external validity.

- Internal validity

Internal validity is a measure of the accuracy of an experiment. It measures whether or not the manipulation of the independent variables, or treatments, actually caused the effects of the dependant variables (Malhorta and Birks, 2006: 264). In other words, internal validity refers to whether or not the observed effects are influenced or caused by extraneous variables. Internal validity is typically sound for experimental

studies conducted in laboratories, where it is easy to keep the conditions constant so as to ensure that the observed results are the singular outcome of the experiment (Blanche and Durrheim, 1999:313).

Internal validity depends largely on the successful manipulation of extraneous variables. Extraneous variables, which can jeopardise internal validity, include the following (Zikmund and Babin, 2007:273):

- *History.* A history effect occurs when a change, other than the experimental treatment, occurs during the course of an experiment and affects the dependant variable. The experiment for this study was conducted within 5 days to prevent the history effect, and ultimately, have internally-valid measures.
- *Maturation.* Maturation refers to changes in the test units themselves that occur with the passage of time (Malhorta and Birks, 2006:265). This is typically an example of how respondents change their consumption behaviour. Once again it is emphasised that the experiment was conducted within 5 days to prevent maturation.
- *Testing.* The initial measurement or test prepares subjects in a way that affects their response to the actual experimental treatment. Testing is typical in pre-test post test research designs.
- *Instrumentation.* A change in the wording of questions, a change in interviewers, or in any other procedures used to measure the dependant variable, causes an instrumentation effect. For the

purpose of this study, the same questionnaire, fieldworkers and laboratory was used for the experiment to ensure validity.

- *Selection.* Improper assignment of test units to treatment conditions causes a selection bias. A screening question distinguished test units as spirit consumers or non-spirit consumers. As this study is pertinent to spirit consumers, only the applicable test units were used in the experiment.
- *Mortality.* This is an extraneous variable that is attributable to the loss of test units, while the experiment is in progress. This study was conducted at a certain time, and the same respondents were not required to be tested again. Mortality therefore had no effect on the internal validity of this experiment.

In summary, the internal validity for this study is as follows:

**Table 4.4 Validity for this study**

Internal validity	Measure
History	Experiment conducted within 5 days
Maturation	Experiment conducted within 5 days
Testing	Randomisation of experiments
Instrumentation	Same interviewer, questionnaire and laboratory
Selection	Screening question
Mortality	Once-off experiment (not time series)

### **4.3.7 STEP 7: PRESENT REPORT**

Once data analysis is completed, a report is prepared and the conclusions are communicated. The recommendations from this report are shared with marketing decision makers. This is done in the next chapter.

### **4.3.8 STEP 8: FOLLOW UP**

Marketing decision makers will use the findings that are presented in the report to perform a follow-up. A considerable amount of time and money is normally spent on research, and it is therefore important that these findings are used effectively.

## **4.4 CONCLUSION**

In this chapter, the research methodology of this study was discussed. Focus was placed on marketing research, and following that, the marketing research process was discussed. Of specific interest was how each step in the marketing research process pertained to this study. In the next chapter, the research findings of this study are discussed.

## RESEARCH RESULTS

---

### 5.1 INTRODUCTION

The purpose of this study was to investigate the effect of the senses on the perception of a brand. Primary research was undertaken to meet this objective. This chapter discusses the results of the primary research, and will focus on the sample and the results of the experiments. Firstly, an outline of the sample is provided, focusing mainly on the demographic profile of the respondents. This is followed by a discussion of the alcoholic drinking behaviour of the sample. Thirdly, the effect of individual senses (in terms of sight, smell and sound) on the perceptions of brandy is discussed. Finally, perceptions as a result of combinations of stimulated senses are dealt with. This chapter concludes with an analysis of the inferential statistics.

### 5.2 PROFILE OF THE SAMPLE

In this study, a factorial experiment was conducted to measure the impact of the senses on the perception of a brand of brandy. The research was conducted using a convenient sample. The South African adult population of alcohol consumers is 12,242,053; to narrow down this category further,



alcohol spirit consumers amount to 7,215,377 people (AMPS, 2008:1). An alcohol spirit consumer is a person who considers the consumption of alcoholic spirits (in the form of brown and/or white spirits at least once a month), as part of their alcohol consumption repertoire (Snyman, 2008:1). From the alcohol spirit consumer population, a convenience sample was drawn. As discussed in chapter 4, alcoholic spirit consumers from the Western Cape participated in the study due to their availability (William, 2006:1) (see section 4.3.4.3).

Once respondents agreed to participate in the study (see section 4.3.4 for selection procedures) they were screened for suitability. The first screening question was whether or not respondents considered themselves to be alcohol spirit consumers. Respondents also had to be over the legal drinking age of 18 years; a total of 240 respondents were selected. The demographic profile of this sample will now be discussed.

### **5.2.1 DEMOGRAPHIC PROFILE**

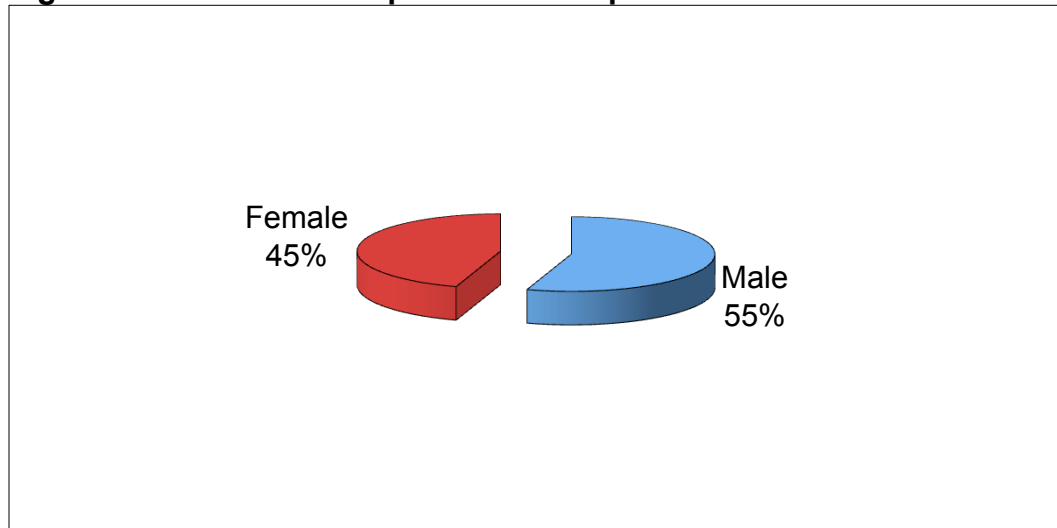
The demographics of the sample (i.e. age, gender, race and education) were determined in questions 4, 5, 6 and 7 of the research questionnaire (see the appendix). The gender, age, race and education composition of the sample will now be discussed.

### 5.2.1.1 GENDER COMPOSITION OF RESPONDENTS

Question 6 of the questionnaire asked respondents to indicate their gender.

Figure 5.1 illustrates their response.

**Figure 5.1 Gender composition of respondents**



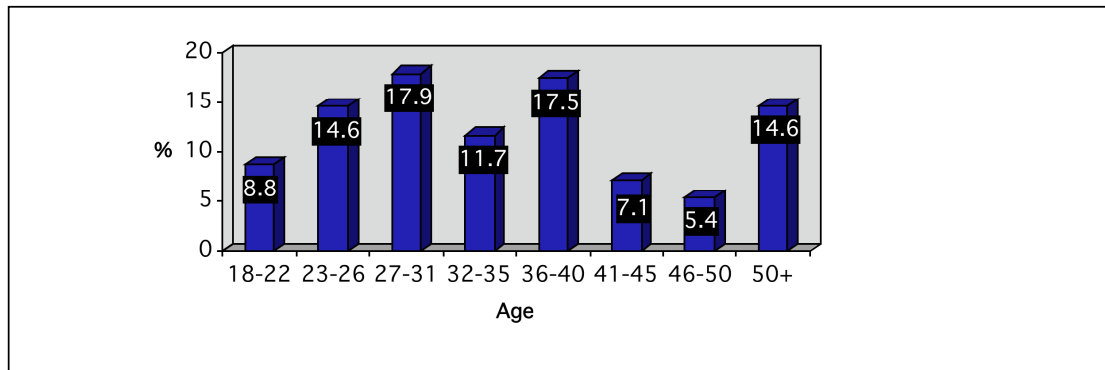
As depicted in figure 5.1, more than half of the respondents in this study were male (55%) and the rest (45%) were female. According to AMPS (2008), in South Africa alcohol spirit drinkers consist of mainly males. When considering alcohol spirits, the gender profile of the sample has a similar pattern to that of AMPS, where there are more male than female drinkers.

### 5.2.1.2 AVERAGE AGE OF RESPONDENTS

As mentioned earlier, the target population was defined as adults aged 18 years and older, and the minimum age was therefore 18. The oldest respondent was 85 years old. The average age of the sample is 46 years of age. Although 240 people were interviewed in this research study, six

respondents did not indicate their age on the questionnaire. Figure 5.2 graphically illustrates the percentage of respondents in each age group of the sample.

**Figure 5.2 Percentage of respondents in each age group (n = 234)**



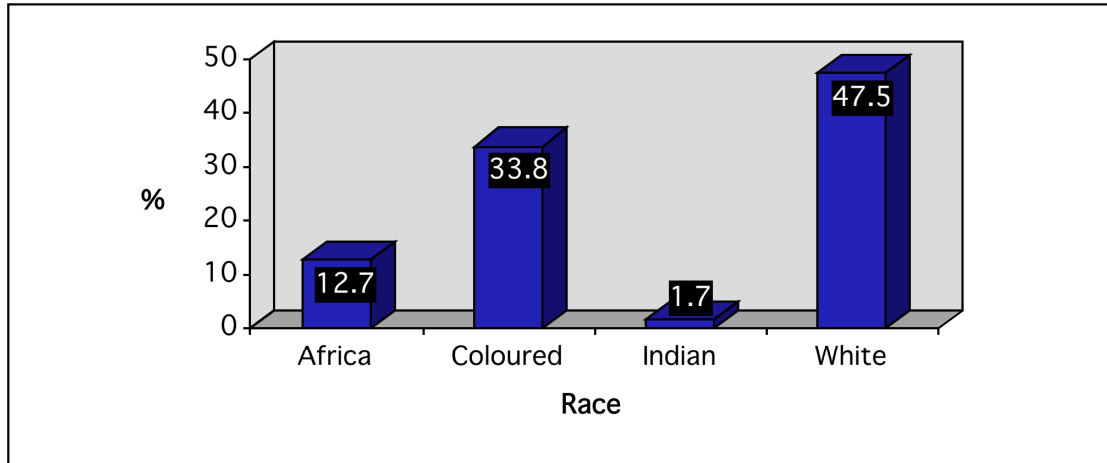
From figure 5.2 it is clear that the age of respondents are well-distributed, and most of the sample were in the 27- to 31-year age groups (17.9%). In the larger alcohol consuming population, 43% of South African brandy drinkers are in the 35- to 49-year age group (TNS research surveys, 2008:11), which is also the case in this study (ages 32 to 49-years accounts for 41.7%). One can therefore conclude that the average age of the sample of this study is fairly similar to that of previous research findings.

### **5.2.1.3 RACE DISTRIBUTION OF RESPONDENTS**

As depicted in figure 5.3, most of the respondents were white (47.5%), the remainder being coloured (33.8%), African (12.7%) and Indian (1.7%). According to TNS research surveys (2008), 41% of the total South African brandy drinking population is coloured. The discrepancy between white and

coloured samples, in comparison to previous research findings, can be ascribed to the demographics of Stellenbosch, which has predominantly white population (Thompson, 2008:1).

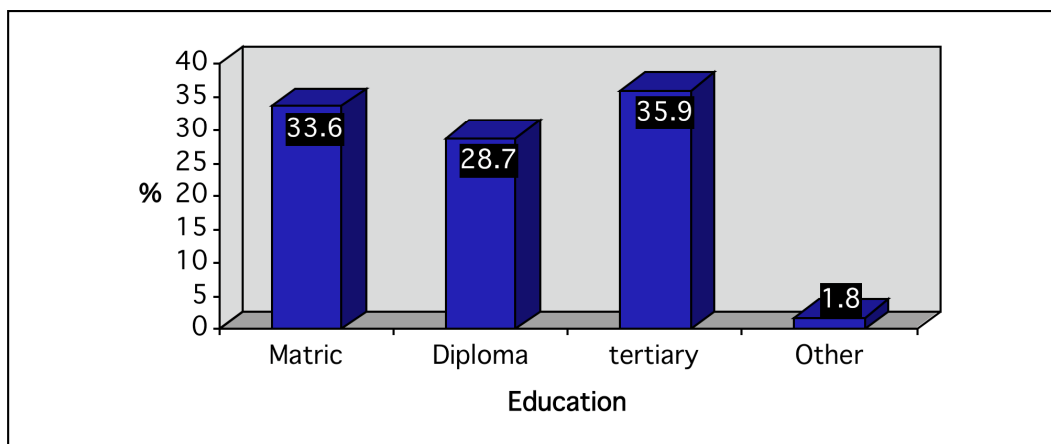
**Figure 5.3 Race distribution (n = 228)**



#### 5.2.1.4 LEVEL OF EDUCATION OF RESPONDENTS

Respondents had to indicate their education level in question 4 of the questionnaire. The level of education of the sample is indicated in figure 5.4.

**Figure 5.4 Level of education (n = 223)**



Most of the respondents indicated that they have a matric certificate (31.3%). Almost a third (28.7%) of the respondents indicated that they have a diploma. More than 40% of the respondents indicated that have a tertiary education. The large number of tertiary-educated respondents could possibly be ascribed to the university town of Stellenbosch, where the research was conducted.

With regards to specific demographics, such as age, race and gender, the following was found:

- The spirits category profile remained similar in age. In other words, the distribution of spirit category preferences was similar to previous research findings across all age groups.
- The spirits category profile was similar across the different levels of education.
- The spirits category distribution across race groups was slightly more biased to white consumers than coloured, due to the town where the convenient sample was drawn.
- There is a different profile of spirit category preferences amongst males and females.

### **5.2.2 SPIRIT CONSUMER PROFILE**

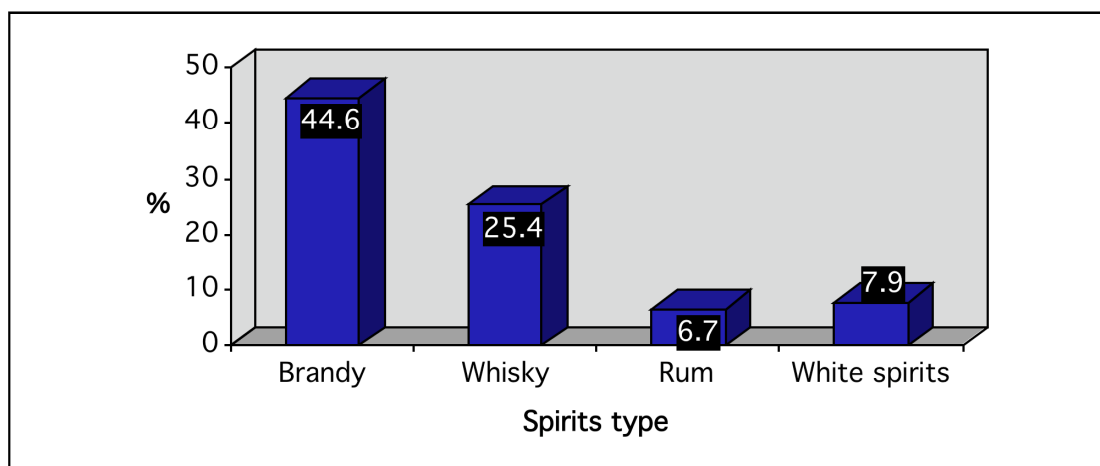
This study was aimed at investigating the impact of the senses on the perception of a brand. The sample included spirit consumers which are classified below. Questions 1, 2 and 3 of the questionnaire focussed on the drinking behaviour of respondents. Respondents firstly indicated their preference for a spirit category type (question 1). Question 2 was an open-ended question as to which brand of spirits was mostly consumed. Question 3

determined the scale of the respondents' consumption. The question consisted of two parts: the first part aimed at determining the number of respondents' drinking sessions per week, and the second part aimed at determining how much alcohol was consumed in each session. Respondents indicated the number of times per week they consume spirits (question 3.1), and finally, the number of units they consume per drinking session (question 3.2). The following sections will discuss the spirit consumption classification of the sample for this study.

#### **5.2.2.1 SPIRIT CONSUMPTION CATEGORY**

A spirits drinker might be classified by their choice of spirit, for example, a brandy drinker prefers brandy as his/her choice of spirit. Spirits consist of brown spirits, which include brandy, whisky and rum, and white spirits such as vodka, cane and gin. As discussed, consumers often migrate between spirit categories (see section 4.3.4). Even though consumers have a preference for an alcoholic spirit type, they usually have a repertoire of spirits (Snyman, 2008:1). This study therefore focussed on brandy consumers and other spirit categories. Respondents indicated their spirit preference in question 1 of the questionnaire. The number of respondents in each spirit category is displayed in figure 5.5.

**Figure 5.5 Number of respondents in each spirits category**



The total South African spirit population consists of 41% brandy drinkers (TNS research surveys, 2008). In this study, 44.6% of the respondents indicated that they consumed brandy. A quarter (25.4%) of respondents in the study indicated whisky as their spirit category of choice. Rum and white spirits contributed smaller amounts in the study with 6.7% and 7.9% respectively. The spirit category of this study has a similar pattern to that of TNS research surveys.

Demographics in the various spirit categories are fairly similar to the broader sample, with the exception of gender. To assess whether or not there is a significant difference between males, females and spirit categories, a chi-square was conducted, as depicted in table 5.1.

**Table 5.1 Comparison of males and females regarding spirits type**

	Spirit type	
<b>Gender</b>	Chi-square	12,017
	p-value	0,007

When considering spirit type and gender, there is a significant difference between the type of spirits consumed amongst males and females. Table 5.1 indicates that the chi-Square value is 12,017, and there is a significant difference in the type of spirits consumed by gender ( $p < 0.05$ ). The different spirit categories by male and females are depicted in table 5.2.

**Table 5.2 Cross tabulation of gender and spirits type**

	Gender				Total
	Male		Female		
Brandy count	54	63.5%	31	36.5%	85
Rum count	3	27.3%	8	72.7%	11
Whisky count	29	56.8%	22	43.1%	51
White spirits count	2	18.1%	9	81.8%	11
Total Count	88	55.7	70	44.3%	158

From table 5.2 it can be deduced that, in this study, men show a higher preference to brandy and whisky; 63.5% of males prefer brandy, as opposed to 36.5% of females who prefer this spirit category type. The male preference for whisky is also higher than female preference, with 56.9% and 43.1% respectively. Females in this study showed a higher preference for rum and vodka. A total of 72.7% of females prefer rum, as opposed to a 27.3% male preference. Vodka, as a preferred spirit category choice, totalled 81.8% for females and 18.2% for males. In this study, the differences found in gender preferences to spirit category types, showed a similar pattern to trends reported by Datamonitor (Datamonitor, 2007:1). A Datamonitor report (2007:1) revealed that men dominate in the spirits category overall, but some subcategories, such as rum or vodka, are popular with women (Just-drinks, 2009:1).



As mentioned, this study was aimed at investigating the effect of the senses on the perception of a brand within the context of alcohol spirits, more specifically, Fish Eagle brandy. There are thus several different brands involved in the framework of investigating alcohol spirits. The next section focuses on specific spirit brands, as consumed by respondents in this study.

#### **5.2.2.2 BRANDS CONSUMED**

In question 2 of the survey, respondents were asked to indicate the brand name of the spirit they consumed most often. This was an open-ended question and resulted in 34 different brand names. Table 5.3 indicates the percentage of respondents who consumed each brand mentioned.

One tenth (10.3%) of the respondents indicated Fish Eagle brandy as their choice of spirit brand. Fish Eagle was indicated as the brandy brand that was most frequently consumed by respondents. In South Africa, Fish Eagle is the second largest premium brand of brandy by volume (ACNielsen, 2008:1). This study used Fish Eagle brandy to research the effect of the senses on the perception of a brand. Although a large portion of the sample consumes Fish Eagle brandy, other brands of whisky and brandy were also consumed by respondents in this study.

**Table 5.3 Brands consumed (n = 204)**

	<i>f</i>	%
Bacardi	6	2,9
Bells	5	2,5
Black Bottle	2	1,0
Collison's	6	2,9
Fish Eagle	21	10,3
Gordon's Gin	5	2,5
Harriers whiskey	4	2,0
J&B	6	2,9
Jack Daniels	2	1,0
Jameson's	5	2,5
Klipdrift Export	19	9,3
Klipdrift Gold	8	3,9
Klipdrift Premium	9	4,4
KWV	5	2,5
Limosine	2	1,0
Mainstay cane	2	1,0
Moby Dick	2	1,0
Nederburg brandy	2	1,0
Olof Berg	19	9,3
Oude Meester	9	4,4
Red Heart	2	1,0
Richelieu	6	2,9
Scottish Leader	8	3,9
Smirnoff	9	4,4
Spiced Gold	2	1,0
Three Ships	21	10,3
Van Ryns 12	5	2,5
Viceroy	5	2,5
Wellingtons	2	1,0
Other	5	2,5
Total	204	100

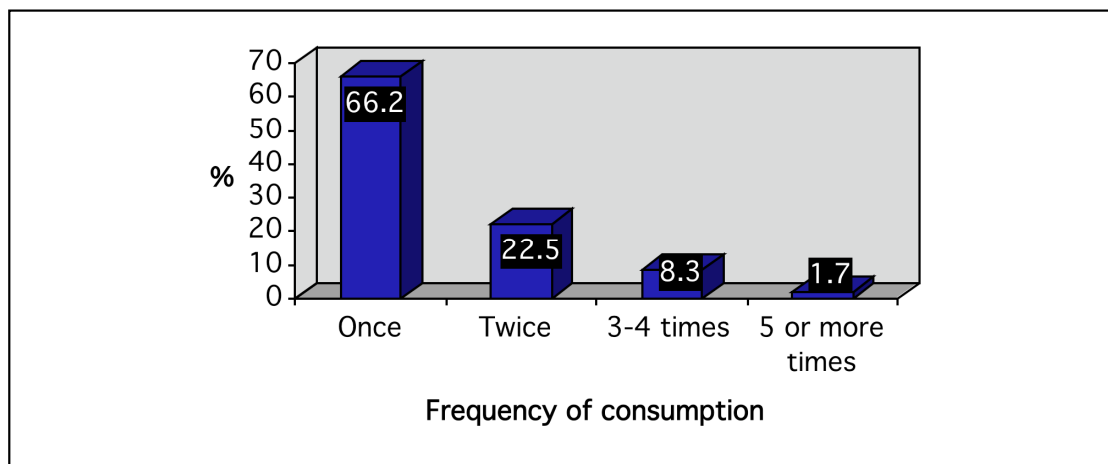
A further one tenth (10.3%) of the respondents indicated Three Ships whisky as a brand mostly consumed. Olof Berg and Klipdrift Export followed as spirit

brands most often consumed by 7.9% of the respondents for each brand respectively. According to Snyman (2008:1), consumers have a repertoire of spirits brands, and although there is loyalty to certain brands, consumers migrate between various brands from time to time. Even though the respondents indicated such a variety of brands the sample was thus appropriate for this study.

### 5.2.2.3 FREQUENCY OF CONSUMPTION

Question 3 of the questionnaire related to drinking behaviour. The first part of the question measured the frequency of spirit consumption. Respondents indicated the number of times per week they usually drink spirits by completing a four-point scale, as indicated in figure 5.6.

**Figure 5.6 Drinking session (n = 213)**



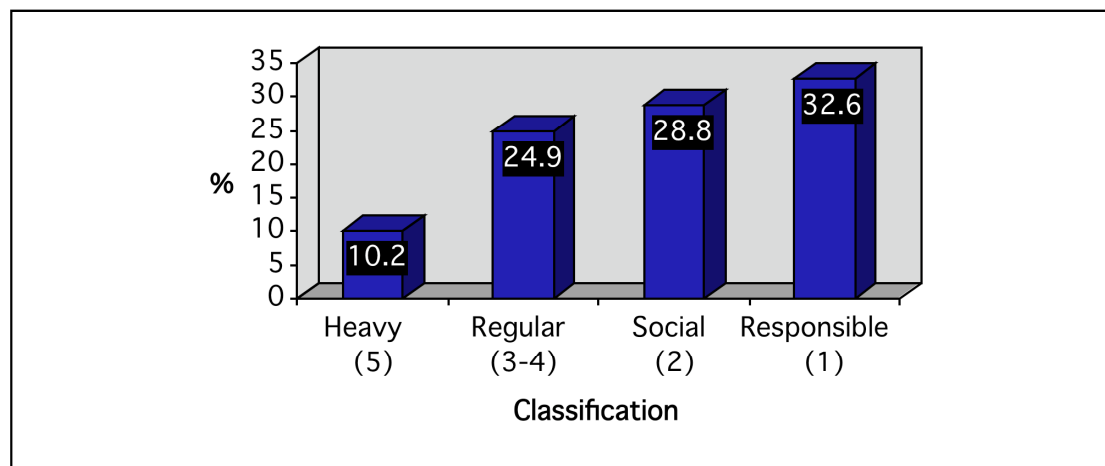
The amount of drinking sessions were categorised into four groups, as illustrated in figure 5.6. Two thirds (66.2%) of the respondents indicated that they drink spirits once a week, and 22.5% drink spirits twice a week.

Respondents who drink alcohol spirits more frequently are classified as three to four times or five and more times per week. In this study, the respondents in the more frequent drinking session categories that drink three to four times a week amounted to 8.3%, and those respondents who drink spirits five or more times a week amounted to 1.7%. South Africans have a culture of drinking alcohol once or twice a week, typically during weekends (Snyman, 2008:1); the sample of this study therefore has a similar drinking pattern to that of the general South African alcohol-drinking population. The next section discusses the units of alcohol spirits consumed by the sample.

#### **5.2.2.4 UNITS CONSUMED**

The alcohol spirit consumption by the respondents' of this study was classified on two levels. In the first part, the spirits consumption classification was noted in relation to the frequency of consumption, and secondly, the number of alcohol spirit units respondents consumed at every drinking session. The second part of question 3 in the questionnaire related to the number of alcohol spirit units per drinking session. A unit of alcohol spirits is considered to be one 30ml serving of spirits (Schmidt, 2008:1). Consumers indicated the number of units consumed in a drinking session on the scale of 1 to 4, where 1 is 'one unit', 2 is 'two units', 3 is 'three or four units' and 4 is 'five or more units'. The classification of spirit consumers in this study is illustrated in figure 5.7.

**Figure 5.7 Classification of spirit consumption (n = 177)**



From figure 5.7, respondents in this study were classified according to their frequency and amount of alcohol spirits consumed (Snyman, 2008:1):

- 36.2% of respondents in this study drink one unit of alcohol spirit per session. In this study they were classified as responsible drinkers.
- 28.8% were classified as social drinkers who drink, on average, two units per drinking session.
- 24.9% were classified as regular consumers, who drink three or four units per drinking session.
- 10.2% of respondents were classified as heavy drinkers, who consume more than five units per drinking session.

The average South African alcohol spirit consumer consumes one or two units per drinking session; the sample of this study therefore has a similar drinking pattern to that of the general alcohol spirit consuming South African population (Thompson, 2008:1).

With regard to drinking behaviour, the number of units consumed by respondents was compared to the number of drinking sessions. When comparing the number of units consumed with the number of drinking sessions (see section 5.2.2.3), there is a significant difference, as illustrated in table 5.4.

**Table 5.4 Difference between number of units consumed and drinking sessions**

	Drinking sessions	
<b>Units consumed</b>	Chi-square	34,093
	p-value	0,00

The chi-Square value is 34,093 and the difference between the number of units consumed and drinking sessions is significant ( $p < 0.05$ ). From table 5.4, it can be concluded that, in this study, the more frequently alcohol spirits are consumed, the lesser the number of units consumed per drinking session. One may conclude that the respondents of this study are responsible alcohol consumers, as small amounts of alcohol spirits are consumed regularly (Snyman, 2008:1).

### **5.2.3 PERCEPTION MEASUREMENT**

The purpose of this study was to investigate the effect of the senses on the perception of a brand. In order to determine this effect, experiments were conducted in which respondents had to evaluate samples of brandy under varying circumstances and indicate their degree of like/dislike towards the product. The scale that was used to measure the perceptions of the brandy

samples was the hedonic scale. As discussed in chapter 4, the hedonic scale is used mostly in consumer-sensory testing by food technologists (Muller, 2008:1). The hedonic scale measures the degree of like or dislike of products, such as certain foods or drinks, in sensory research; in this research it was used to measure the degree of like or dislike of brandy. Respondents were prompted to indicate which term best described their attitude toward each brandy sample on the nine-point scale, where 1 = dislike extremely and 9 = like extremely (see table 4.2). The results from the hedonic scale are depicted in table 5.5.

**Table 5.5 Descriptive information on perception (237 ≤ n ≤ 240)**

	Min	Max	$\bar{x}$	SD
No sight, no smell, no sound	1	9	6,92	1,412
Sight	1	9	6,13	2,092
Sound	1	9	6,04	2,255
Smell	1	9	6,27	2,040
Sound and sight	1	9	6,63	1,527
Smell and sight	1	9	6,78	1,263
Smell and sound	1	9	6,54	1,641
Smell, sight and sound	1	9	6,29	2,053

The demographics of the sample indicated that respondents were mostly brandy and other spirit drinkers. Under normal laboratory conditions where there was no influence on sight, sound or smell, respondents scored the brandy sample 6.92 on the hedonic table, which is closest to 'like moderately'. One can thus conclude that brandy and other spirit drinkers 'moderately like' the taste of the brandy sample. The average score across all the experiments was six on the hedonic table, which indicated that the respondents 'slightly like' the taste of brandy.

Results were slightly lower under varying stimuli factors, as opposed to when no stimuli were involved. The three senses (smell, sight and sound), when stimulated in combination, reported a mean score of 6.29. The second highest mean score was the result of stimulated smell and sight, with a mean of 6.78. The lowest score resulted from the manipulation of sound, which reported a mean score of 6.04.

To assess whether or not there were significant differences between various measures, inferential statistics were performed.

### **5.3 EFFECT OF THE SENSES ON PERCEPTION**

To determine whether or not the senses influence perception, hypotheses were formulated (see section 4.3.3.3). To test the hypotheses, an ANOVA was conducted. The ANOVA results are depicted in table 5.6.

It is evident that there was a significant difference between the various means (model  $p < 0.05$ ) (see table 5.6). By focussing on the main effects, two-way and three-way interactions, one can explain the significant differences.



**Table 5.6 Analysis of variance results**

	M <sup>2</sup>	df	f	p
Model	1242,243	8	374,771	0,000
<b><i>Main effects</i></b>				
Smell	0,103	1	0,031	0,860
Sound	1,159	1	0,350	0,555
Sight	0,007	1	0,002	0,964
<b><i>Two-way interactions</i></b>				
Smell * sound	1,270	1	0,024	0,877
Smell * sight	14,884	1	0,211	0,646
Sound * sight		1	0,383	0,537
<b><i>Three-way interactions</i></b>				
Smell * sound * sight	3,315	1	4,490	0,035

NOTE: Dependent variable = taste

### 5.3.1 MAIN EFFECTS

From table 5.6 it is evident that the null hypothesis for sight could not be rejected ( $p > 0.05$ ). Therefore, at a 95% level of confidence, one can deduce that sight, as a main effect did not influence the perception of brandy in this study.

The null hypothesis for the individual effect of sound on the perception of brandy is also rejected ( $p > 0.05$ ). At a 95% level of confidence, one can conclude that sound alone did not influence the perception of brandy.

Table 5.6 also reports that smell, as an individual effect, does not influence the perception of brandy. The null hypothesis for smell is not rejected

( $p > 0.05$ ). Therefore, at a 95% level of confidence, it is concluded that smell as a main effect did not influence the perception of brandy.

*In this study it was therefore found that individual senses (sight, smell and sound), as main effects, did not influence the perception of brandy significantly.*

### **5.3.2 TWO-WAY INTERACTIONS**

Table 5.6 revealed that when the colour of brandy was visible through sight, perception was not significantly influenced by the pouring sound ( $p > 0.05$ ). The null hypothesis for sight and sound was thus not rejected (where  $p > 0.05$ ). Therefore, at a 95% level of confidence, it is concluded that sight and sound did not influence the perception of brandy.

Table 5.6 shows that enhanced smell and sight did not influence the perception of brandy significantly. The null hypothesis for smell and sound is therefore not rejected ( $p > 0.05$ ). At a 95% level of confidence, the combination of smell and sound did not influence the perception of brandy.

Table 5.6 shows that when there is a pouring sound and an enhanced smell, there was no significant influence on perception. The null hypothesis for sound and smell is therefore not rejected ( $p > 0.05$ ). At a 95% level of confidence, sound and smell did not influence the perception of brandy.

From table 5.6 it is evident that none of the sensory combinations with two-way interactions were significantly different ( $p>0.05$ ). Since there were no significant differences in the two-way interactions, it was not necessary to do further analysis, such as the Duncan's Multiple Range test (Boshoff, 2002:294).

*It was therefore found that two-way interactions, with combinations of sight, sense and smell, did not influence the perception of brandy significantly.*

### **5.3.3 THREE-WAY INTERACTIONS**

Table 5.6 illustrates that the combination of the three sensory factors, on a three-way interaction level, influenced perceptions ( $p<0.05$ ). The null hypothesis for the three-way interaction was rejected ( $p<0.05$ ). One can therefore conclude that, at a 95% level of confidence, smell, sound and sight in combination influenced the perception of a brandy.

*This study has shown that that a three-way interaction of the senses (sight, sound and smell) influenced the perception of brandy significantly.*

The empirical results, as reported in tables 5.6, can be summarised as follows:

- Individually stimulated senses did not influence the perception of brandy.
- The senses that were stimulated in two-way interactions did not influence the perception of brandy.

- Multiple senses (sight, enhanced smell and sound), in a three-way interaction, influenced perceptions of brandy.

## **5.4 CONCLUSION**

This chapter dealt with the findings of the research study. The profile of the sample and the consumer profile of the respondents were highlighted, and the perception of the respondents with an appropriate sample discussed. In the next chapter, conclusions will be drawn and recommendations will be made about the research findings.

## CONCLUSIONS AND RECOMMENDATIONS

---

---

### 6.1 INTRODUCTION

Against the background of the challenge marketers face in influencing consumer perception, with increasing media options and technology, this study attempted to assess the effect of the senses on the perception of a brand. The empirical study was of an experimental nature, and a 2 x 2 x 2 factorial design was used to assess the effect of the different senses on the perceptions of Fish Eagle brandy.

In this chapter, conclusions are drawn and recommendations are made about the study and its objectives. Once the conclusions and recommendations have been discussed, the original objectives will be revisited. This chapter concludes with a brief overview of further areas of research that were identified during the study.

### 6.2 CONCLUSIONS

The purpose of this study was to investigate the effect of the senses on the perception of a brand. In order to focus the research and to provide

information to a leading distributor of spirits in South Africa, it was decided to concentrate on alcohol, more specifically, brandy. A premium brand of brandy, Fish Eagle, was used in the study (see chapter 4). As discussed, alcohol spirit brands have less consumer brand interaction opportunities than other alcohol types, such as beer, due to the consumption style (see section 4.3.4). Despite lower consumer brand interaction with alcohol spirit brands, brands need alternative brand communication strategies to break through media clutter and technology options to influence consumer perception (see section 3.1). One way of influencing consumer perception is by involving the senses in brand communication. In an attempt to influence perceptions, marketers of alcohol spirit brands can thus stimulate the senses through brand communication.

Inferences about this study therefore relate to alcohol spirits, more specifically, brandy. This study attempted to assess the effect of the senses on consumer perception. Perception is the way in which consumers interpret and give meaning to brands (Cant *et al.*, 2002:99). In other words, perceptual interpretation occurs when a consumer forms a 'ruling' as to whether or not an object is liked or disliked (Schiffman and Kanuk, 2004:199). Consumers form perceptions upon experiencing the functional properties of a brand (Muller, 2008:1), and the brand used in this study is intended for physical consumption, or for the use of intrinsic enjoyment. The evaluation of a consumable product is performed through taste as one of the senses (Lawless and Heymann, 1998:363). Since brandy is a consumable product, taste was used as the measure of perception (see section 1.3.2). Taste was thus the dependent variable, in conjunction with the sensory stimuli, sight, sound and smell, as independent variables (see section 4.3.3.3). The stimuli

were: the visibility of the brandy colour, the sound of brandy pouring and an enhanced honey aroma. Feel was not included in the study due to the consumable nature of the brand (see section 1.3.2). The experiment was conducted with a convenient sample, and conclusions about the demographic profile and consumption profile of the sample will be discussed next.

### **6.2.1 DEMOGRAPHIC PROFILE AND PREFERENCE OF ALCOHOL SPIRITS**

For the purpose of this study, the population constituted of alcohol spirit consumers over the age of 18 years, in South Africa. Since the population of the study was large, only a sample of the population was studied and a convenience sampling method was used. A total of 240 alcohol spirit consumers from the Western Cape formed the sample in the research study. Respondents participated in the research experiment at the Distell sensory laboratory in Stellenbosch (the methodology process was discussed in detail in chapter 4, and the findings of the research were dealt with in chapter 5).

As stated previously, a convenient sample was used. The demographics of the sample (i.e. age, race, gender and education) were similar to that of previous research performed in South Africa. In the first instance, the sample consisted of 55% males and 45% females. Secondly, approximately 37% of respondents were between 35- and 49-years of age. Thirdly, most of the respondents are white (47.5%), while the remainder are Coloured (33.8%), African (12.7%) and Indian (1.7%). Finally, with regard to the education level of the sample, all the respondents have matric certificates, and 40% of the respondents have a tertiary education. One can therefore conclude that the

realised sample, in this study, was appropriate to assess whether or not the senses have an effect on the perception of a brand. Although the sample is fairly representative of the target market, conclusions will be made for this study and not the broader population, since a convenience sampling method was applied (Diamantopoulos and Schlegelmilch, 2002:95).

Respondents who participated in the research had to be over the legal drinking age of 18 years, and had to be regular consumers of alcohol spirits. Alcohol spirit consumers were classified by their choice of alcohol spirits as part of their alcohol drinking repertoire. In other words, consumers either consumed alcohol spirits alone, or consumed alcohol spirits in addition to other alcohol categories, such as wine or beer. Beer volumes comprise of more than 60% of the total South African alcohol market, and some loyal beer drinkers do not drink from other alcohol categories (Snyman, 2008:1). Since beer volumes are significant, a great number of inferences on the alcohol market are often based on beer-drinking consumers. It is therefore common practice in the alcohol industry to narrow research, by focussing on alcohol spirits specifically (Thompson, 2008:1). Once again, as the respondents consumed alcohol spirits, the realised sample for this study was appropriate.

## **6.2.2 CONSUMPTION PROFILE**

The sample consisted of alcohol spirit consumers over 18 years of age. Alcohol spirit consumer repertoires can consist of brandy, whisky, rum or white spirits (Thompson, 2008:1). This study aimed at investigating the effect of the senses on the perception of a brand, by focussing on brandy. The



majority of this sample preferred brandy (44.6%) as a spirit of choice. Whisky had a 25.4% representation, while rum was at 6.7% and white spirits at 7.9%. As mentioned earlier, the sample is fairly representative of the South African spirit consumption repertoire (chapter 5), and was therefore appropriate for this study.

The sample included brandy and other spirit category consumers. There are many similarities in consumption style by consumers of various spirits. A number of deductions from this research can be applied to other categories of spirits. Although consumers show some degree of loyalty towards a certain category of spirits, there are trends and economic conditions that change the equilibrium of the profile of the alcohol spirits category (ACNielsen, 2007:11). Currently, brandy claims the largest number of consumers, but it is declining with the gain in numbers of whisky consumers (Snyman, 2008:1). According to ACNielsen (2007:11), the brandy value share has declined by 10.6%, and the whisky value has grown to 29.8%. The number of consumers' migrating from brandy to whisky can be ascribed to premium trends, where whisky is perceived to be more premium than brandy (Thompson, 2008:1). During difficult economic conditions, it is also common to see shifts from brown spirits (whisky, rum and brandy) to white spirits (vodka, cane and gin). One can conclude that certain conditions, such as premium trends or economic pressures, can influence consumers' alcohol spirit repertoire. The sample therefore consists of alcohol spirit consumers and is therefore considered appropriate for this study.

Although there are some trends or economic conditions that can influence a spirit consumer's category of choice, consumers generally favour a brand of

the same category. Fish Eagle brandy was the brandy most often consumed by brandy drinking respondents. Fish Eagle was also the brandy used in the experiment. The sample can therefore be considered appropriate.

As highlighted in chapter 5, the average age profile was similar across the four alcohol spirit categories. Gender, on the other hand, had a different profile in the four spirit categories; females were more likely to prefer white spirits to brown spirits. Males again had a higher tenacity for brandy and whisky. Since brandy was used in the research, the conclusions arrived at about the results may be somewhat more relevant to male consumers.

With regard to drinking behaviour, the sample consumed alcohol predominantly once or twice a week, and consumed one to two units per session. The legal limit for responsible drinking in South Africa is two alcoholic units (Schmidt, 2008:1). One can conclude that the sample has a responsible drinking behaviour, and is therefore appropriate for the study. The next section will focus on the perception of brands affected by the senses.

### **6.2.3 PERCEPTION MEASUREMENT**

Although it can be argued that consumers are exposed to many brand attributes, such as price, extrinsic and intrinsic attributes (see section 4.3.3.3), it was decided to focus the experiment on the intrinsic brand attributes of brandy. The intrinsic brand attributes of the brandy consisted of an enhanced honey aroma, visible colour and a pouring sound. Brand perceptions (i.e. taste) were investigated via a respondent's perceptual interpretation of

whether or not a product is liked or disliked under the various conditions (Imram, 1999:2005). The measurement of perception was done by way of a Hedonic scale (Lawless and Heymann, 1998:363). Respondents evaluated their like or dislike of the brandy sample on a nine-point hedonic scale, where 1 indicated 'dislike extremely' and 9 indicated 'like extremely' (see section 4.3.3).

The highest reported mean score, of 6.92 on the hedonic scale (see table 5.12), occurred when there was no influence on sight, sound or smell. Without any treatments, the score was close to 7 ('liked moderately') on the hedonic scale. The brandy is therefore 'liked moderately' under normal laboratory conditions, where respondents are aware of an experiment taking place in a laboratory. By manipulating sight, sound and smell, one can assume that respondents were distracted by changes that may have influenced their perceptions, and therefore affected their evaluation of the brandy.

Experiments were conducted with various stimulated senses by incorporating the following treatments:

- enhanced smell (enhanced honey aroma, no aroma);
- sight (red light with no visible brandy colour, normal light with visible brandy colour);
- sound (pouring sound, no pouring sound).

The objective of the study was to measure the effect of the senses on the perception of a brand, by testing the stated hypotheses (see table 4.1).

Several factors that were used as treatments, such as sight, sound and smell, were involved in measuring the respondents perceptions towards brandy. As discussed in chapter 4, the various factors, described as the *main factors*, were tested individually. The factors were tested in various combinations and were described as *two-way interactions* and *three-way interactions*. The conclusion that arose from the findings will now be discussed.

### **6.2.3.1 MAIN EFFECTS**

*This study found that the individual senses (sight, smell and sound), as main effects, did not affect the perception of the brandy sample significantly.*

Respondents rated their degree of liking for smell at 6.27, and for sight at 6.13. The lowest mean score of all the experiments, with the manipulation of sound, was a mean score of 6.04 on the hedonic scale.

When considering the main effects, one can conclude that a pouring sound is a distraction or an irritation for respondents who rated the score negatively. Sound therefore did not have a significant effect on the perception of the brandy sample.

Sight, in the form of the visible brandy colour, seems to be more important than sound, as sight had a slightly higher degree of liking. Sight on its own did not have a significant effect on the perception of the brand.

Although enhanced smell had the highest degree of liking of brandy, it did not have a significant effect on the perception of brandy. One can assume that

respondents probably did not like the way in which variables were manipulated in the experiment, for example where they had to smell the honey reference before tasting the brandy sample.

### **6.2.3.2 TWO-WAY INTERACTIONS**

*This study found that two-way interactions with combinations (of sight, sense and smell) did not affect the perception of the brandy sample significantly.*

The second-highest mean score of 6.78 was the result of stimulated smell and sight. One can conclude that respondents liked the combination of sight and smell, but it did not have a significant effect on the perception of the brandy sample.

The two-way interaction of sight and sound scored 6.63 on the hedonic scale, and it was concluded that sight and sound also did not affect the perception of the brandy sample significantly.

The two-way interaction of smell and sound scored 6.54 on the hedonic scale, and it did not have a significant affect on the perception of the brandy sample significantly.

### **6.2.3.3 THREE-WAY INTERACTIONS**

*In this study, a three-way interaction of the senses (sight, sound and smell) affected the perception of the brandy sample significantly.*

The three senses (smell, sight and sound), when stimulated in combination, reported a mean score of 6.29, which is interpreted as “like slightly” on the hedonic scale. The three-way interaction (between sight, enhanced smell and sound) influenced the perception of the brand of brandy significantly, and this was the only hypothesis that was supported at a confidence level of 95%. One can thus conclude that the three-way interaction (between sight, smell and sound) affected perceptions of the brand of brandy significantly.

As discussed in chapter 3, stimulating the senses in brand communication can affect the perception of a brand (Tan, 2007:350). One way of stimulating the senses is by way of combinations of influenced senses, (smell, sound and sight), as opposed to individual senses. The results of the experiment support this statement, as it was found that stimulating the senses in a three-way interaction (as opposed to individually) affected the perception of the brandy significantly. The next section makes recommendations to marketers, based on the research findings.

### **6.3 RECOMMENDATIONS FOR MARKETERS**

As discussed previously, consumers are bombarded with advertising messages or stimuli from the environment, and alternative means for brand communication should be identified to break through the clutter (North and Enslin, 2004:152). The senses have been identified as an alternative means to communicate, through sensory-stimulating brand communication (see

chapter 3). The more senses the brand appeals to, the stronger the emotional bond (Lindstrom, 2005a:86). As a result of this strong emotional bond, consumers are prepared to be loyal and pay higher costs for certain brands (Frost, 2006:1).

Building brands is about building emotional ties between the consumer and the brand (Thomson *et al.*, 2006:77). The senses are directly linked to emotions (Nissim, 2005:1). One can thus conclude that marketers, who aim to build brands, can do so by involving the senses. In response to this statement, the results of this study revealed that multiple stimulated senses, by the brand, influenced perceptions.

Marketers can involve the senses in brand-building to break through the advertising clutter. Involving multiple senses in brand communication can create stronger emotional attachments, and this notion was defined earlier as sensory marketing (see chapter 3). As mentioned already, sensory marketing can elicit favourable brand associations, by way of stimuli conveying the right associations via the senses (Gilson and LaLond, 2005:3). A sensory brand experience therefore activates connections in a consumer's mind to other associations (ideas and feelings), and although these connections are not always conscious, they can influence the consumer's brand perceptions (Clifton and Simmons, 2003:133). One can therefore conclude that sensory marketing can influence brand perception.

Sensory marketing is a form of marketing communication which, firstly, aims to create awareness, and secondly, to influence consumer behaviour via the

various sensory channels connected to the brain (Oswald, 2007:1). Sensory marketing therefore means that there are more sensory features in brand-building tools, such as brand elements, marketing programs and sensory brand associations. Sensory brand elements are the intentional involvement of sensory factors by which a brand communicates, and those sensory trademarkable devices that serve to identify and differentiate a brand. A sensory marketing programme is the involvement of the senses (such as smell, sound and sight) in direct marketing campaigns. Sensory brand associations consist of informational nodes that are experienced through sensory brand features. The aims of sensory brand associations are to evoke brand memories in purchase decisions. Against the background of the literature, the results of this study have the following implications for marketers.

### **6.3.1 MAIN EFFECTS**

*In this study, the individual senses (sight, smell and sound), as main effects, did not influence the perception of the brandy sample significantly.*

This study found that the senses that were stimulated in isolation did not have a significant effect on the perception of brandy. In other words, if brand communication is only targeted at stimulating one consumer sense, perceptions will not be influenced significantly. The marketing implications, relevant to this study, of each main effect will now be discussed:



- *Sight*. In this study, the visibility of the brandy colour on its own made no significant difference on the consumer's perception of the brandy sample. Marketers believe that the colour of brandy is crucial, as consumers associate brandy colour to brandy maturity, where darker brandy colours are associated with older brandies (Thompson, 2008:1). However, marketers can not rely on brandy colour alone as a stimulus for sight to effect perceptions significantly.
- *Sound*. This study showed that the pouring sound of brandy, on its own, will not have a significant effect on the perception of the brandy sample. The pouring sound is believed to have aural properties which can evoke positive memories (see chapter 3). In this study, the pouring sound may have been disturbing for respondents in an individual context, and marketers can therefore explore different aural properties to influence perceptions significantly. Once marketers have identified an aural property, they can also use sound in combination with other senses in an attempt to influence perceptions.
- *Smell*. In this study, the honey aroma as a stimulating variable did not affect consumer perceptions significantly. Honey is a prominent smell in Fish Eagle brandy (Snyman, 2008:1). However, the use of the honey aroma to enhance the smell of the stated brandy did not have a significant effect on consumer perception. The enhanced smell did have a higher degree of liking in comparison to the other individual senses, possibly due to the pleasant smell, but it was found that the honey aroma did not influence perceptions. The fact that consumers liked the

honey aroma can be explored further through different research applications. For example, a different stimulus application can be applied where the honey aroma is distributed in the laboratory through the air-conditioning.

### **6.3.2 TWO-WAY INTERACTIONS**

*In this study, two-way interactions (with any combination of sight, sound and smell) did not influence the perception of the brandy sample significantly.*

- *Sound and smell.* In this study, a pouring sound and an enhanced honey aroma did not affect consumers' perception of the brandy significantly. As discussed in chapter 3, consumers are not born with a memory bank of smells, and these are learned through experiences with the involvement of other senses (such as sound) to build smell associations. Smell is thus developed by memorising associations with certain smells over a period of time (see section 3.2.1). In this study, the pouring sound did not significantly contribute to the learning of the smell association. One can thus conclude that sound should contribute to smell through learning via experiences. Marketers can use sound to teach consumers about the relevant aroma. For example, the wine industry often uses sound and smell in wine tasting, where consumers listen to the facilitator and make certain smell associations. The average consumer is seldom able to identify different aromas experienced on the nose, but once a facilitator mentions certain aromas, the consumer is able to identify it.

- *Smell and sight.* In this study, the enhanced honey aroma and the visibility of a brandy colour did not affect perception significantly. As mentioned earlier in the wine-tasting example, once consumers learn the smell with the aid of another sense, they are able to associate it (see section 3.2.1). The visibility of colour did not significantly contribute to the honey aroma experience learned in this study. Marketers can investigate the use of various stimulators of sight (instead of brandy colour) to support the honey aroma in the brand's communication. For example, a consumer may have to read (sight) the packaging to learn that there is a honey aroma (smell).
- *Sound and sight.* This study found that the pouring sound and visibility of the brandy colour did not affect consumer perceptions significantly. Although the pouring sound is believed to evoke feelings of thirst (see section 3.2.4), the pouring sound, in combination with the visibility of the brandy colour, did not affect perception in this study significantly. Brand communication for alcohol spirits that use sound (in the form of the pouring sound) and sight (the visibility of the brandy colour) will therefore not affect perceptions significantly.

### **6.3.3 THREE-WAY INTERACTIONS**

*In this study, the three-way interaction of the senses (sight, sound and smell) affected the perception of the brandy sample.*

The results indicated that all three independent variables, in a three-way combination, exerted a significant affect on perception, as suggested in the literature (Gilson and LaLond, 2005:3; Thomson *et al.*, 2006:77; Lindstrom, 2005a:86). In other words, brand communication that stimulates consumer senses (sight, smell and sound) may affect perception. This experiment incorporated an enhanced honey scent, the pouring sound and the visibility of the brandy colour. Marketers can influence brand perception by incorporating the senses in three-way combinations in brand-building tools in the following examples:

- Media in the form of a television commercial that visually and aurally illustrates the pouring of brandy, while a voice-over highlights the fact that a honey aroma is present on the nose.
- Experiential marketing campaigns in the form of brandy tasting. A facilitator can highlight the aroma notes, and have honey as a smell reference. The colour can be emphasized through a facilitator's voice and the pouring sound imitated.
- Retail marketing campaigns, where the pouring sound can be activated and the honey aroma can be distributed when a consumer enters a dedicated brand section. This can be supported by visuals of the brandy colour on pouring shots.
- Retail marketing campaigns in consumption environments, where a pouring sound can be simulated, the brandy colour displayed through pouring and a 'scratch-and-sniff' device given to consumers. The device should release a honey aroma for consumers to make the aroma association with the brandy.

The above-mentioned examples included stimuli that were used in this experiment. There are different stimuli that can be used as factors to influence perceptions. The pouring sound can, for example, be replaced with music or a jingle. The honey aroma, in this particular brand, is the most prominent sensory device. When choosing an aroma, it should be based on the dominant aroma on the relevant brand. The brandy colour is also product-specific, and other visuals that can stimulate sight can be used to build brand associations and influence perception. The selected stimuli should be based on the brand (intrinsic) associations. These brand associations are executed through brand communication, with the aim of affecting perception (see section 3.4). The next section will reconcile the objectives of the study.

## **6.4 RECONCILIATION OF THE OBJECTIVES OF THE STUDY**

The primary objective of the current study was to investigate whether or not the senses have an effect on perception. In order to narrow down the research and to provide information to a leading distributor of spirits in South Africa, it was decided to select brandy as an alcohol for the investigation, and to focus only on the senses: smell, sound and sight.

The purpose of this study was therefore to investigate the effect of the senses on consumer perception. The objectives of this study were to assess whether or not (1) only enhanced smell effects consumer perception; (2) only sound effects consumer perception; (3) only sight effects consumer perception; (4)

enhanced smell and sound effect consumer perception; (5) sight and enhanced smell effect consumer perception; (6) sound and sight effect perception; (7) sight, enhanced smell and sound effect consumer perception.

The objectives were met and it was found that (1) only enhanced smell did not affect consumer perception significantly; (2) only sound did not affect consumer perception significantly; (3) only sight did not affect consumer perception significantly; (4) enhanced smell and sound did not affect consumer perception significantly; (5) sight and enhanced smell did not affect consumer perception significantly; (6) sound and sight did not affect consumer perception significantly, and lastly; (7) sight, enhanced smell and sound did affect consumer perception significantly. It is therefore clear that the individual senses and two-way sensory interactions did not affect brand perception. Multiple three-way stimulated senses, in the form of sight, sound and smell, affected brand perception. One can thus conclude that multiple senses influence the perception of brands of brandy significantly.

## **6.5 AREAS FOR FUTURE STUDIES**

This study investigated the effect of the senses on the perception of a brand of brandy. There are several areas that can be investigated further in future research.

Firstly, the effect of the senses on the perception of a brand was investigated in the context of consumer behaviour. To progress from the basis of

perceptual studies in consumer behaviour, one can start with brand equity elements. Brand equity is the value of a brand that is found in the memory of each potential consumer in a target market (Gregg, 2003:2). The value of a brand can be established by considering consumers' awareness of associations with brand loyalty to and perceived quality of brands (Aaker, 1998:173). Recognition of the economic value of brands has increased the demand for effective management of brand equity (Gerber-Nel, 2005:3). The stated brand equity elements can thus be investigated from a sensory perspective, and areas of future research may investigate:

- The effect of the senses on the perceived quality of a brand.
- The effect of the senses on brand loyalty.
- The effect of the senses on brand associations.
- The effect of the senses on brand awareness.

Secondly, this study is aimed at investigating the effect of the senses on the perception of a brand. The research was therefore applied and limited to an alcoholic spirits brand. Brandy as a consumable product that is part of the alcoholic beverage industry, typically has many sensory characteristics. The research can therefore also be applied to other consumable beverages, such as beer, wine or cold drinks. As mentioned previously (chapter 3), sensory characteristics can be intrinsic and/or extrinsic, and most sensory research to-date has been applied to consumable products on an intrinsic level. Future sensory studies can therefore also include other non-consumable industries, for example, the mobile communication, car, service or fashion industries.

Thirdly, due to budget constraints, a convenience sampling method was used. The results of the research were therefore applicable to this study, and not necessarily on the alcohol spirit consuming population of South Africa. Future studies can apply probability-sampling methods, and the results can then make inferences on the alcohol spirits population of South Africa.

Finally, future studies to investigate the effect of the senses on a brand can involve different forms of stimuli. As mentioned earlier, jingles and music can be explored with sound, different aromas can be used, and various brandy colours or other visuals can also be used in experiments. The sense, touch, was not involved in this study, and this can be a potential area of future research (see section 1.3.2). The sense of touch could be stimulated in the brandy example with various temperatures (hot or cold) or in different glasses.

## **6.6 CONCLUSION**

Similar to many industries, alcohol spirit brands have started moving away from traditional 'features-and-benefits' marketing, and towards creating experiences for their consumers by means of so-called experiential marketing. Traditional marketing views consumers as rational decision makers who are interested in functional features and benefits, whereas experiential marketing views consumers as rational and emotional beings, who are interested in achieving pleasurable experiences. Consumer experiences thus originate from a set of interactions with a brand, which provoke a perception. This study investigated the effect of the senses on the perception of a brand.



In this study, the involvement of the senses in brand building was referred to as sensory marketing. Consumer perceptions of the usefulness of provided stimuli or information input, influences their emotion and attitude towards a brand. Consumer emotions indicate the overall liking or preference for objects, which influence brand decisions. One can thus conclude that multiple stimulated senses, in brand communication, influences perception which was found in this study.

This chapter concludes the study with conclusions and recommendations of the research. Conclusions were drawn from the research results, and recommendations were made, based on these findings for marketers and future researchers. The objective of this study was to determine whether or not the senses affected the perception of a brand. An experiment was conducted to test the hypothesis. In this study it was found that the senses, in multiple (three-way) interactions, affected the perception of a brand of brandy.

## BIBLIOGRAPHY

Aaker, D.A. 1998. *Strategic marketing management*, 5<sup>th</sup> edition. New York: John Wiley.

ACNielsen. 2008. *Alcohol spirits trends*. [Online] Available: <http://www.acnielsen.com> [April, 2009].

Alreck, P.L. and Settle, R.B. 1999. *Strategies for building consumer brand preference*. *Journal of Product and Brand Management*, 8(2): 130-144.

Baguley, T. 2008. *How to calculate simple main effects using generic ANOVA software*. [Online] Available: <http://psychologicalstatistics.blogspot.com/2006/07/how-to-calculate-simple-main-effects.html> [October, 2009].

Belch, G.E., and Belch, M.A. 2007. *Advertising and Promotion: An Integrated Marketing Communications Perspective*, 7<sup>th</sup> edition. New York: McGraw-Hill/Irwin.

Bharadwaj, S. *Introduction to Marketing*. Management Science II. [Online] Available: [http://nptel.iitm.ac.in/courses/IITMADRAS/Management\\_Science\\_II/Pdf/1\\_1.pdf](http://nptel.iitm.ac.in/courses/IITMADRAS/Management_Science_II/Pdf/1_1.pdf) [January, 2010].

Blanche, M.T. and Durrheim, K. 2002. *Research in practice: applied methods of the social sciences*. Cape Town: University of Cape Town Press.

Bogue, J., Sorenson, D., and Delahunty, C. 2002. *Determination of Consumers' Sensory Preferences for Full-fat and Reduced-fat Dairy Products*. National University of Ireland Agribusiness Discussion Paper, 37: 4-55.

Bong Na, W., Marshall, R. and Keller, K.L. 1999. *Measuring brand power: validating a model for optimizing brand equity*. Journal of Product and Brand Management, 8(3): 170-184.

Boshoff, C. 2002. *Service advertising- an exploratory study of risk perceptions*. Journal of Service Research, 4(4): 290-298.

Brassington, F. and Pettitt, S. 1997. *Principles of marketing*. London: Pitman.

Cant, M.C., Brink, A. and Brijball, S. 2002. *Customer Behaviour: A South African perspective*. Lansdowne: Juta.

Chen, C.H. 2001. *Using Free Association to Examine the Relationship Between Characteristics of Brand Associations and Brand Equity*. Journal of Product and Brand Management, 10 (7): 439-451.

Cheng-Hsuih, C.A. 2001. *Using free association to examine the relationship between the characteristics of brand associations and brand equity*. Journal of Product and Brand Management,10(7): 439-451.

Clegg, A. 2005. *The myth of authenticity*. [Online] Available: <http://www.brandchannel.com> [December, 2007].

Clifton, R. and Simmons, J. 2003. *Brands and Branding*. The Economist. New York: Bloomberg Press.

Cooper, D.R. and Schindler, P.S. 2003. *Business Research Methods*,8<sup>th</sup>edition.New York: McGraw-Hill/Irwin.

Cravens, D. and Piercy, N. 2003.*Strategic marketing*, New York: McGraw-Hill.

Datamonitor. 2007. *Consumers' alcoholic drinks preferences: new trends and future perspectives*. [Online] Available: <http://www.datamonitor.com> [October, 2008].

Delgado-Balester, E. and Munuera-Aleman, J.L. 2005. *Does brand trust matter to brand equity?* Journal of Product and Brand Management, 14(3):187-197.

Diamantopoulos, A. and Schlegelmilch, B.B. 2002. *Taking the fear out of data analysis*. London: Thomson.

Du Plessis, P.J., Jooste, C.J and Strydom, J.W. 2001. *Applied strategic marketing*. Sandown: Heinemann.

Du Plessis P.J. and Rousseau, G.G. 1999. *Buyer Behaviour: A Multi-cultural Approach*, 2<sup>nd</sup> edition. South Africa: International Thomson Publishing.

Easton, V.J. and McColl, J.H. *Statistics Glossary*. [Online] Available: <http://www.stats.gla.ac.uk/steps/glossary/anova> [November, 2009].

Enquist, C. 2006. *From consumers to people*. Sensory Experience Design. [Online] Available: <http://www.sensorydesign.com> [August, 2007].

Erdem, T. and Swait, J. 1998. *Brand equity as a signalling phenomenon*. *Journal of Consumer Psychology*, 7(2): 131-157.

Escalas, J.E. and Bettman, J.R. 2003. *You are what you eat*. *Journal of Consumer Psychology*, 3(3): 339-348.

Fandos, C. and Flavian, C. 2006. *Intrinsic and extrinsic quality attributes, loyalty and buying intention: an analysis for a PDO product*. *British Food Journal*, 10(8): 646-662.

Frost, R. 2006. *Building Confidence in Your Brand*. [Online] Available: <http://www.brandchannel.com> [August, 2006].

Gagnon, J.L. and Chu, J.J. 2005. *Retail in 2010: a world of extremes*. Emerald Group Publishing Limited, 33(5): 13-23.

Gerber-Nel, C. 2005. *Brand equity of the provincial, regional and national rugby teams of South Africa*. DCom Thesis. University of Stellenbosch.

Ghodeswar, B.M. 2008. *Building brand identity in competitive markets: a conceptual model*. Journal of Product and Brand Management, 1(7):4-12.

Ghosh, A.K., Chakraborty, G. and Ghosh, D.B. 1995. *Improving brand performance by altering consumers' brand uncertainty*. Journal of Product and Brand Management, 4(5): 14-20.

Gilson, J. and LaLonde, A.G. 2005. *Cinnamon buns, marching ducks and cherry-scented racecar exhaust: Protecting nontraditional trademarks*. Trademark Protection and Practice, 95(2): 773-824.

Grace, D and O'Cass, A. 2002. *Brand associations: Looking through the eye of the beholder*. Qualitative Market Research: An International Journal, 5(2): 96-111.

Grannel, C. 2004. *Brand and theory of knowledge*. [Online] Available: <http://www.brandchannel.com> [April, 2007].

Gregg, E.A. 2003. *Perspectives on brand equity*. University of Virginia: Darden Business.

Gunay, G.N. 2001. *The Marketing Concept*. [Online] Available: <http://eab.ege.edu.tr/pdf/1/c1-s1-m5.pdf> [November, 2009].

Guzman, F. 2006. *Brand Building toward social values: associating to public goods*. A Brand building literature review. Excerpt from PhD thesis.

Ha, C.L. 1998. *The theory of reasoned action applied to brand loyalty*. Journal of Product and Brand Management, 7(1): 51-61.

Haigh, D. and Knowles, J. 2005. *What's in a name?* Emerald Group Publishing Limited, 21(6): 27-29.

Hair, J.F., Bush, R.P. and Ortinau, D.J. 2006. *Marketing research: within a changing environment*. New York: McGraw Hill/Irwin.

Hines, J. 2006. *Does your packaging, umm, smell?* [Online] Available: <http://www.fmcg.co.za> [June, 2006].

Hsieh, M. and Lindridge, A. 2005. *Universal appeal with local specifications*. Journal of Product and Brand Management, 14(1): 14-28.

Imram, N. 1999. *The role of visual cues in consumer perception and acceptance of a food product*. Nutrition and Food Science, 5:224-228.

Ishii, R., Kawaguchi, H., O'Mahoney, M. and Rousseau, B. 2005. *Relating consumer and trained panels' discriminative sensitivities using vanilla flavoured ice cream as a medium*. Food and Quality Preference, 18: 86-96.

Iqbal, M. 2007. *The elongating tail of brand communication*. [Online] Available: <http://blaiq.typepad.com/misentropy> [February, 2008].

James, D. 2005. *Guilty through association: brand association transfer*. Journal of Consumer Marketing, 22(1): 14-24.

Jooste, C.J., Klopper, H.B., Berndt, A. and du Plessis, G. 2002. *Product Management*. Claremont: New Africa Books.

Just-drinks. 2009. *Differences in Male and Female Alcohol Attitudes and Preferences*. [Online] Available: <http://www.just-drinks.com/store>. [October, 2009].

Keller, K.L. 2003. *Strategic brand management: building, measuring and managing brand equity*, 2<sup>nd</sup> edition. New Jersey: Prentice-Hall.

Kent, T. 2003. *2D23D: Management and design perspectives on retail branding*. International Journal of Retail and Distribution Management, 13(3): 131-142.

Kim, H., Kim, W.G. and An, J.A. 2003. *The effect of consumer-based brand equity on the firms' financial performance*. Journal of Consumer Marketing, 20(4): 335-351.



Klemz, B.R. 2008. Workshop on experimental design. Stellenbosch: July  
(Notes in possession of lecturer.)

Knox, S. 2004. *The death of brand deference: can brand management stop the rot?* Journal of Product and Brand Management, 1(6): 48-55.

Kotler, P. 2003. *Marketing management*, 11<sup>th</sup> edition. New Jersey: Prentice-Hall.

Kotler, P and Armstrong, G. 2001. *Principles of marketing*. 9<sup>th</sup> edition. New Jersey: Prentice-Hall.

Kotler, P. and Keller, K.L. 2006. *Marketing management*, 12<sup>th</sup> edition. New Jersey: Prentice-Hall.

Lamb, C.W., Hair, J.F., McDaniel, C., Boshoff, C. and Terblanché, N.S. 2002. *Marketing*. Cape Town: Oxford.

Lattey, K.A., Bramley, B.R., Francis, I.L., Herderich, M.J and Pretorius, S. 2007. *Wine quality and consumer preferences: understanding consumer needs*. The AWRI report, 22(1): 31-39.

Lawer, C. and Knox, S. 2006. *Customer advocacy and brand development*. Journal of Product and Brand Management, 15(2): 121-129.

Lawless, H.T. and Heymann, H. 1998. *Sensory evaluation of food- principles and practices*. New York: Chapman and Hall.

Lin, K. 2005. *Environmental branding- an experiential marketing strategy*. Keio University: Tokyo.

Lindstrom, M. 2005. *Brand Sense: Build powerful Brands through Touch, Taste, Smell, Sight, and Sound*. New York: Free press.

Lindstrom, M. 2005a. *Broad sensory branding*. *Journal of Product & Brand Management*, 14(2): 84-87.

Low, G.S. and Lamb, C.W. 2000. *The measurement and dimensionality of brand association*. *Journal of Product and Brand Management*,9(6): 350-368.

Lyttleton, C. 2007. *TheScent Trail*. London:Bantam press.

Malhotra, N.K. 2004. *Marketing Research: An Applied Orientation*. Upper Saddle River: Prentice Hall.

Malhorta, N.K. and Birks, D.F. 2005. *Marketing Research: An Applied Orientation*. London: Prentice Hall.

Manning-Schaffel, V. 2006. *Branding that makes scents*. [Online] Available: <http://www.brandchannel.com> [August, 2008].

Martin, B.A.S., Le Nguyen, V.T. and Wi, J. 2002. *Remote control marketing: how ad fast-forwarding and ad repetition affects consumers*. Marketing intelligence and planning, 20(1): 44-48.

McDaniel, C & Gates, R. 2001. *Marketing research essentials*, 3<sup>rd</sup> edition. Cincinnati: South-Western College.

Meilgaard, M., Bennet, S. and James, M. 2001. *Sensory Technology- Its Strategic Application to Brand Management*. Technical Quarterly, 38(4): 218-225.

Mooy, S.C. and Robben, H.S.J, 2002. *Managing consumers product evaluations through direct product experience*. Journal of Consumer Marketing, 11(7): 432-446.

Muller, N. 2008. Workshop about sensory research. Stellenbosh: May. (Notes in possession of researcher.)

Murphy, J. 2005. *Concerns grow over marketing's full sensory assault*. Asia's Media and Marketing Newspaper [January, 2005].

Nissim, B. Brand Loyalty: *The psychology of preference*. [Online] Available: <http://www.brandchannel.com> [August, 2006].

North, E. and Enslin, C. 2004. *Building brands through alternative brand contact communications*. Communicatio, 30(1): 151-165.

O'Cass, A. and Grace, D. 2004. *Exploring consumer experiences with a service brand*. Journal of Product and Brand Management, 13(4): 257-268.

Okonkwo, U. 2005. *Redefining the luxury industry*. [Online] Available: <http://www.brandchannel.com> [August, 2006].

Orth, U.R., McDaniel, M., Shellhammer, T., and Lopetcharat, K., 2004. *Promoting brand benefits: the role of consumer psychographics and lifestyle*. Journal of Consumer Marketing, 21(2): 97-108.

Oswald, L. 2001. *Semiotics and sensory marketing*. [Online] Available: <http://www.marketinsemiotics.com> [October, 2007].

Pappu, R., Quester, P.G. and Cooksey, R.W. 2005. *Consumer-based brand equity: improving the measurement-empirical evidence*. Journal of Product and Brand Management, 14(3): 143-154.

Philippe, F., Schacher, L. and Adolphe, D.C. 2003. *The sensory panel applied to textile goods- a new marketing tool*. Journal of Fashion Marketing and Management, 7(3): 235-248.

Quester, P. and Lim, A.L. 2003. *Product involvement/brand loyalty: is there a link?* Journal of Product and Brand Management, 12(1): 22-38.

Ray, C. 2004. *Integrated Brand Communications. A Powerful paradigm.*  
Canada: Interbrand Canada inc.

Reliasoft. *Analysis of General Factorial Experiments.* [Online] Available:  
[http://www.weibull.com/DOEWeb/analysis\\_of\\_general\\_factorial\\_experiments.](http://www.weibull.com/DOEWeb/analysis_of_general_factorial_experiments.htm)  
htm. [November, 2009].

Roberts, K. 2005. *Lovemarks.* New-York: Powerhouse books.

Romaniuk, J. and Nenycz-Thiel, M. 2007. *Ten simple facts about measuring  
and interpreting brand perceptions.* [Online]  
Available:<http://www.marketingscience.info> [February, 2008].

Romaniuk, J., Sharp, B., Paech, S. and Driesener, C. 2004. *Brand and  
Advertising Awareness: A Replication and Extention of a Known Empirical  
Generalisation.* Australasian Marketing Journal, 12(4): 70-80.

Rutherford, D. 2003. *Excellence in Brand Building.* Institute of Communication  
and Advertising, 1: 1-40.

Saarf. 2008. *All Media Product Survey (AMPS).* [Online] Available:  
<http://www.saarf.co.za> [January, 2009].

Schab, F. 2006. *Learning the language of non-verbal communication.* [Online]  
Available: <http://www.6dgs.com> [March, 2007].

Schmidt, D. 2008. Personal interview with the sensory research analyst to the product development department of Distell. Stellenbosch: May. (Notes in possession of researcher.)

Sethuraman, R. and Cole, C. *Factors influencing the price premium that consumers pay for national brands over store brands.* Journal of Product and Brand Management, 8(4): 340-351.

Shaffie, R. 2008. *Is it about Likeability, Engagement or Personal Relevance?* South African Market Research Association.

Sheth, J.N., Mittal, B. and Newman, B.I. 1999. *Customer behaviour: consumer behaviour and beyond.* Fort Worth: The Dryden Press.

Schiffman, L.G. & Kanuk, L.L. 2004. *Consumer Behaviour*, 8<sup>th</sup> edition. New Jersey: Prentice Hall.

Snoj, B., Korda, A.P. and Mumel, D. 2004. *The relationship among perceived quality, perceived risk and perceived product value.* Journal of Product and Brand Management, 13(3): 156-167.

Snyman, C. 2008. Personal interview with the spirits segment director of Distell about brandy consumption. Stellenbosch: July. (Notes in possession of researcher).

Steyn, A.G.W., Smit, C.F., Du Toit, S.H.C. and Strasheim, C. 1999. *Modern statistics in practice*. Cape Town: Van Schaik.

Struwig, F.W. & Stead, G.B. 2001. *Planning, designing and reporting research*. Cape Town: Pearson Education South Africa.

Swanson, S.R. and Davis, J.C. 2003. *The relationship of different loci with perceived quality and behavioural intentions*. *Journal of Services Marketing*, 17(2): 202-219.

Tan, C.S.L. 2007. *Re-branding the small island enterprise- a look at the application of sensory branding in kickstarting competitiveness*. Keio University: Tokyo.

Tns reasearch surveys. 2008. *Alcohol drinks report*. [Online] Available: <http://www.tnsresearchsurveys.co.za> [August, 2008].

Thompson, S. 2008. Personal interview with the group general marketing manager (brandy) of Distell about spirits market trends. Stellenbosch: July. (Notes in possession of researcher.)

Thomson, M., MacInnes, D.J and Park, C.W. 2005. *The ties that bind: measuring the strength of consumers' emotional attachments to brands*. *Journal of Consumer Psychology*, 15(1): 77-91.

Tollington, T.1998. *Brands: the asset definition and recognition test*. *Journal of Product and Brand Management*, 7(3): 180-192.

Uncles, M.D., Dowling, G.R. and Hammond, K. 2003. *Customer loyalty and customer loyalty programmes*. Journal of Consumer Marketing, 3:14-24.

Van der Walt, A., Strydom, J.W., Marx, S. and Jooste, C.J. 1996. *Marketing Management*, 3<sup>rd</sup> edition. Cape Town: Juta.

Van Kleef, E., van Trijp, H.C.M., and Luning, P. 2003. *Internal versus external preference analysis: An exploratory study on end-user information*. Food and Quality Preference, 17: 387-399.

Van Trijp, H.C.M. 2008. Personal email to a professor at Wageningen university in the Netherlands about sensory perception. Stellenbosch: July. (Notes in possession of researcher.)

Watson, A., Viney, H., and Schomaker, P. 2002. *Consumer attitudes to utility products: a consumer behaviour perspective*. Marketing Intelligence and Planning, 20(7): 394-404.

Wegner, T. 2000. *Quantitative methods for marketing decisions*. Cape Town: Juta.

Weisman K. 2003. *Luxury in a cold climate: brands turn on senses*. International Herald Tribune. [Online] Available: <http://www.ihrt.com/articles> [August, 2006].



William, M.K. 2006. *Research Methods Knowledge Base*. [Online] Available: <http://www.socialresearchmethods.net/kb/sampron.php> [October, 2007].

Yeoh, P. 2005. *A conceptual framework of antecedents of information search in exporting. Importance of ability and motivation*. *International Marketing Review*, 22(2): 165-198.

Zaltman, G. 2005. *How customers think*. [Online] Available: [www.getabstract.com](http://www.getabstract.com) [December, 2007].

Zanker, J. *Does motion perception follow Weber's law?* [Online] Available: <http://www.perceptionweb.com/abstract> [October, 2008].

Zikmund, W.G. and Babin, B.J. 2007. *Exploring Marketing Research*, 9<sup>th</sup> edition. Ohio: South Western.

## **ANNEXURE A**