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AN EXPLORATORY INVESTIGATION OF CONSUMERS' PERCEPTIONS AND PERCEPTUAL PROCESS REGARDING FOOD PACKAGING

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Matthew 19:26

But Jesus beheld them, and said unto them, “With men this is impossible; but with God all things are possible”.

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SUMMARY

Consumers are exposed to various food products within the retail environment competing for their attention. Once food packaging gains the attention of the passing consumer, it communicates with the consumer through visual stimuli that the consumer interprets to result in a perception of the food product. The formed perceptions have a direct effect on the consumers' choice of product at the point of purchase. This indicates the importance of attention capturing packaging attributes and effective communication between the product and the consumer. However, little research is available regarding food packaging, specifically about the South African consumer in this context.

This study was conducted to explore a group of South African consumers' perceptions of food packaging through a qualitative research approach. The research also aimed to explore how perceptions are formed through the perceptual process. This was achieved by interviewing 25 participants using semi-structured interviews during which participants were questioned about their general perceptions regarding food packaging. A projective technique using mock packaging was employed to investigate the three steps in the perceptual process namely exposure, attention and comprehension.

Results from the first objective indicated that consumer perceptions regarding food packaging can be divided into functional and physical food packaging attributes. Participants were exposed to mock packagings which acted as stimuli in the perceptual process. Resulting perceptions of sales packaging attributes consisted of information and visual attributes. These stimuli were interpreted and divided into consumers' general and negative food packaging associations. These results were applied to an existing perceptual process model as part of an information processing system that might aid the food industry to gain a better understanding of the stimuli consumers themselves indicated as important in forming their perceptions regarding food packaging.

'n VERKENNENDE ONDERSOEK VAN VERBRUIKERS SE PERSEPSIES EN PERSEPTUELE PROSES VAN VOEDSELVERPAKKING

OPSOMMING

Verbruikers word binne die kleinhandel omgewing blootgestel aan verskeie produkte wat kompeteer vir hulle aandag. Sodra die voedselverpakking die aandag van die verbygaande verbruiker getrek het, kommunikeer dit met die verbruiker deur visuele stimuli wat deur die verbruiker geïnterpreteer word wat lei tot 'n persepsie van die voedselprodukt. Die persepsie wat gevorm is het 'n direkte effek op die verbruiker se produkkeuse by die aankooppunt. Dit dui die belangrikheid van die eienskappe van verpakking wat aandag trek en die effektiewe kommunikasie tussen die produk en die verbruiker aan. Daar is egter min navorsing oor voedselverpakking en spesifiek oor die Suid-Afrikaanse verbruiker in hierdie konteks beskikbaar.

Die studie is uitgevoer om 'n groep Suid-Afrikaanse verbruikers se persepsies aangaande voedselverpakking te ondersoek deur middel van 'n kwalitatiewe navorsingsbenadering. Die navorsing het ook gepoog om te verken hoe verbruikers se persepsies deur die perseptuele proses gevorm word. Met behulp van semi-gestruktureerde onderhoude is 25 deelnemers ondervra oor hul algemene persepsies van voedselverpakking. 'n Projektiewe tegniek wat gebruik gemaak het van skynverpakkings is aangewend om die drie stappe in die perseptuele proses naamlik blootstelling, aandag en begrip te ondersoek.

Deelnemers se persepsies van voedselverpakking kan verdeel word in fisiese- en funksionele voedselverpakkingseienskappe volgens die resultate van die eerste doelstelling. Na verdere blootstelling aan skynverpakkings wat gedien het as stimuli, kan hul persepsies verdeel word in inligtings- en voorkomseienskappe van verpakking. Hierdie stimuli is geïnterpreteer en verdeel in algemene en negatiewe voedselverpakking assosiasies. Die resultate is toegepas op 'n bestaande perseptuele proses model as deel van 'n inligtingsverwerkingsstelsel. Die model mag die voedselindustrie lei tot 'n beter begrip van die stimuli wat verbruikers self aangedui het as belangrik om hul persepsies aangaande voedselverpakking te vorm.

DEFINITION OF TERMS

Packaging –

Any packaging of foodstuffs for sale that completely or partially encloses the foodstuff and includes wrappers (SA, 2007:73). Also known as primary packaging.

Sales packaging –

Primary packaging.

Labels –

Any descriptive matter written, printed, stencilled, marked, embossed or impressed upon, or permanently attached to a container of a foodstuff, including labelling for the purpose of promoting its sale or disposal (SA, 2007:73).

Perception –

Perception can be defined as a process through which consumers select, organize and interpret stimuli (Schiffman & Kanuk, 2007:152)

Perceptor –

The consumer shaping the perception.

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CHAPTER 1

INTRODUCTION

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND AND MOTIVATION

Within the retail environment, there is a definite exchange in communication between the packaging and the consumer (Underwood & Ozanne, 1998:208) at the point of purchase (POP). Belch and Belch (2007:60) state that there is an increase in the number of decisions made at the POP where packaging is often the consumer's first exposure to the product. It is estimated that the average consumer passes approximately 300 items per minute during grocery shopping (Rundh, 2005:680) and that a typical grocery store contains approximately 30 000 items all competing for consumers' attention (Belch & Belch, 2007:60). Furthermore, food retailers can expect that approximately 100% of consumers entering the retail environment will purchase a product (Lam *et al.*, 2001:195). It is, therefore, important that product packaging must attract attention through the clutter and be able to communicate the correct message regarding the product it contains to passing consumers (Belch & Belch, 2007:60) because if the packaging does not stimulate consumers' interest, they will not pay attention to it (Silayoi & Speece, 2007:1498, 1500).

Underwood and Ozanne (1998:208) propose that marketers have to upgrade their product communication in the competitive retail industry since food packaging communication is increasing in importance when the consumers' food choice in the store environment is analysed (Sijtsema *et al.*, 2002:580). A product's advantages are communicated through the design of the packaging and it leads to consumers' first and sometimes lasting impression of a product (Creusen & Schoormans, 2005:64). Extrinsic attributes on a product, such as the visuals on the sales packaging, influenced 73% of consumers' choices at the POP in a study done by Wells *et al.* (2007:684) and product choice is based on consumers' perceptions and product attributes of that particular product (Garber, 1995:635, 660; McNeal & Ji, 2003:402). Several food packaging attributes influence the eventual perception of consumers (Imram, 1999:226), but this study will focus on visual attributes of food products since consumers purchase the product as packaged. The sales packaging design must consequently ensure that consumers form a positive perception regarding the specific food product (Silayoi & Speece, 2004:607; Silayoi & Speece, 2007:1497).

According to Jansson *et al.* (2003:59), the way consumers perceive products and product attributes is a growing area of research which is important to retailers, product designers and

marketers alike. However, limited research has been done on packaging (Underwood *et al.*, 2001:403; Rundh, 2005:670), product aspects drawing consumers' attention at the POP (Pieters *et al.*, 1997:281; Underwood *et al.*, 2001:403), consumer response to packaging (Silayoi & Speece, 2007:1496) or the role of packaging in shaping the perceptions consumers have regarding a product (Ampuero & Vila, 2006:100). Even less international research could be found regarding food packaging and perceptions exclusively, while the South African context seems to be unexplored. This lack of research was the motivation for this study which aimed to explore a group of South African consumers' perceptions of food packaging and specifically how these perceptions are formed in a South African context. Such exploratory research might lead product designers and marketers alike to a better understanding of these consumers' perceptions and the shaping thereof regarding food packaging that need more attention.

1.1.1 Consumers' perceptions regarding food packaging

Perception can be defined as a process through which consumers select, organize and interpret stimuli (Schiffman & Kanuk, 2007:152). Consumers shape their perception through a combination of how they perceive, choose and use a certain product, all at once (Wansink & Huffman, 2001:230). It is thus inevitable that consumers will form perceptions of every product they become aware of.

According to Sijtsema *et al.* (2002:568), consumers' perceptions at the POP are formed by the sales packaging characteristics as the stimuli together with the visual observation and interpretation of the consumer. However, the stimuli consumers receive in-store is mainly visual and thus make a significant contribution on the consumers' perception of the food product (Imram, 1999:226). It can, therefore, be said that the sales packaging attributes such as packaging colour, typography, graphical shapes and images, text, design, logo and illustrations (Underwood *et al.*, 2001:405; Ampuero & Vila, 2006:102), serve as stimuli that have an influence on consumers' perceptions (Sijtsema *et al.*, 2002:568). According to Aaker (quoted by Wansink & Huffman, 2001:230), there is a link between product association and the perception of the consumer. Thus, effective packaging results in a favourable association towards a product and a positive perception regarding the product by the consumer.

In order for product packaging to meet consumers' expectations and to respond to rising desires, it is important to understand what consumers are looking for currently and in future (Ahmed *et al.*, 2005:761). It should also be determined which product attributes are important to consumers (Solomon, 2007:68) and the focus of product appearance should fall on these attributes (Creusen & Schoormans, 2005:63). If the product characteristics originate from

consumers' own desires, it might be possible to create a more consumer orientated product as consumers demand that food packaging should at least adhere to certain characteristics for them to consider choosing it (Sijtsema *et al.*, 2002:565, 571). Therefore, this study was undertaken to gain information on the characteristics of packaging that consumers pay attention to when forming an opinion about a food product so that these attributes can be included in the future of packaging design.

Even though poor product perceptions have a direct connotation with low purchase incidence (Wansink & Huffman, 2001:236), marginal attention has been given to consumers' product perceptions as formed through packaging (Ampuero & Vila, 2006:100). As it has become essential for the retail business to respond to consumers' changing desires promptly (Hoffman & Mehra, 2000:365), this study focused on how consumers' perceptions of food packaging are formed and which packaging attributes play a role in the perceptual process in order to create packaging that is perceived positively by consumers.

1.1.2 Formation of consumer perceptions through the information processing model

This study was approached by using the systems perspective which consists of input, transformation and output (Payne-Palacio & Theis, 2001:36). The perceptual process can also be viewed as a system since it consists of interdependent parts working together to achieve the common goal (Spears & Gregoire, 2004:2) of forming a perception. Applied to the perceptual process, the food packaging stimuli as input must also be processed through the information processing system as proposed by Mowen and Minor (2001:39) to result in the eventual consumer perception of the product. Thus, in order to gain insight into consumers' perceptions, a closer look had to be taken at the different steps in the information processing system.

In this study, product attributes served as the information input into the perceptual process which is transformed into the eventual formed perception (output) through the information processing system (Mowen & Minor, 2001:39; Solomon, 2007:49). The perceptual process or transformation, consists mainly of three interdependent parts namely exposure, attention and comprehension, and must be understood as a whole to make sense of the formed perception. The first phase of transformation occurs as soon as consumers are exposed to food packaging when they enter the retail environment. During the second phase, food packaging needs to attract the attention of the consumers in order for information processing to occur consciously (Mowen & Minor, 2001:39, 45). Only after exposure and attention can a consumer interpret the stimuli or information received to result in a perception (Solomon, 2007:49) or output.

Consumers perceive the product and its packaging as one since packaging is an integrated part of products (Ahmed *et al.*, 2005:778; Silayoi & Speece, 2007:1498). Therefore, it can be argued that the sales packaging represents the product at the POP and if the food packaging stimuli are unable to attract the attention of consumers, there is no input into the perceptual process, and consequently, there can be no output or perception. This poses a serious problem because consumers convert their formed perception into attitudes which affect their behaviour and subsequent product choice and purchase (Ampuero & Vila, 2006:110).

In order to maximize the existing effect of food packaging on consumers and to produce food packaging that creates positive product perceptions, a better understanding of consumers' response to packaging is needed (Silayoi & Speece, 2004:609). Therefore, insight into the perceptual process and product attributes most relevant to consumers are required (Sijtsema *et al.*, 2002:566), in order to design competitive sales packaging that can communicate its value in the cluttered market (Nancarrow *et al.*, 1998:111). This research aimed to answer what the consumers' in the present study's perceptions regarding food packaging are and how these perceptions are formed. This insight might lead to an understanding of which packaging attributes play a key role as input into the information processing system that may result in a better understanding of consumers' perceptions regarding food packaging in a South African context.

1.2 PROBLEM STATEMENT

Although a reasonable amount of research has been done on packaging in general and perceptions of consumers alike, there is limited information on consumer perceptions regarding food packaging, especially in the South African context. The importance thereof is eminent when realising that consumers' perceptions are shaped through product packaging (Silayoi & Speece, 2004:607) and the communication thereof with the consumer which are increasingly influencing the consumer's choice of product (Sijtsema *et al.*, 2002:580). This has a direct effect on product sales which is needed for product survival in the retail environment where fierce competition between products exists on cluttered shelves. International research indicated that poor product perceptions have a direct connotation with poor product sales (Wansink & Huffman, 2001:236). However, due to a lack of research in the South African context, this aspect needed to be investigated. Furthermore, consumers' perceptions are formed through information processing. The information processing model consists of three main interrelated parts of exposure, attention and comprehension, each dependent on the other (Mowen & Minor, 2001:38). If food packaging is unable to gain the attention of passing consumers in the retail environment, no communication can occur between the product and

consumer (Belch & Belch, 2007:60). Since consumers shape their product perceptions through the packaging, no perception can be shaped which implicates that the product will not be considered for purchasing.

This study aimed to explore the perceptions that consumers have regarding food packaging in a South African context and how these perceptions are formed through the perceptual process. By conducting this research, consumers' perceptions regarding food packaging can be explored as well as which attributes of food packaging consumers regard as important that will consequently influence their perceptions. Due to the exploratory nature of the study, results cannot be applied to the general South African consumer. However, retailers and product designers can use the acquired information as a guide in conducting their own research to determine which packaging attributes may create a more consumer orientated product. This may result in higher product sales for the food industry and better consumer satisfaction.

1.3 AIM AND OBJECTIVES

1.3.1 Aim

The aim of this study was to explore the perceptions and perceptual process of a group of South African consumers regarding food packaging.

1.3.2 Objectives

In order to achieve the above-mentioned aim, the following objectives were proposed for this study:

- 1. To explore the **perceptions** consumers have regarding food packaging in a South African context.*
- 2. To explore the way in which a group of South African consumers form a perception of food product packaging through the **perceptual process**.*

1.4 CONCEPTUAL FRAMEWORK

The conceptual framework in Chapter 2 (Figure 2.1) of Mowen and Minor (2001:38, 39) was used as the main focus of this study. After exploring consumers' existing perceptions regarding food packaging, insight was also needed to explore how these perceptions are formed. The basic consumer information processing model was used to explain how perceptions are formed through the three interrelated parts in the perceptual process. The study was also based on the systems perspective to explain the way in which consumers form their perceptions.

The first part of the perceptual process is exposure to food packaging (Solomon, 2007:49) and in the context of the study, it occurs as soon as consumers step into the retail environment. Secondly, the food packaging must gain the attention of the passing consumer by communicating with the consumer through the stimuli on the packaging (Imram, 1999:226). Consumers can only then interpret the packaging stimuli and as a result form a perception of the product. Creusen and Schoormans (2005:68) also state that the first step to enable consumers to purchase is primarily through visual sales packaging attributes to attain their attention such as increased packaging size and the use of bright colours. If the packaging can elicit a positive response from the consumer (Silayoi & Speece, 2004:607), it could result in a product purchase as consumers shape their perception of a product through product packaging. Consequently, if consumers do not notice a product due to poor packaging communication, they cannot form a perception of the product resulting in a possible loss in sale. For this reason, understanding of consumers perceptions is needed to know how certain packaging attributes affect their choice of product and to understand how these perceptions are formed.

1.5 STRUCTURE OF MINI-DISSERTATION

This mini-dissertation is presented in article format. Chapter 1 provides a brief background, motivation and problem statement reflecting on consumers' perceptions regarding food product packaging. Chapter 2 presents a literature review on the subject. Chapter 3 is presented in article format to be submitted to the British Food Journal according to the authors' guidelines provided in Appendix J. This chapter includes an abstract, introduction, methodology, discussion of the results of the study and a conclusion. Chapter 4 presents the concluding chapter as well as implications and recommendations. The references used in Chapter 1 and 2 of this mini-dissertation are provided according to the mandatory style stipulated by the North-West University, while the specific authors' instructions regarding style for the British Food Journal were followed for the article in Chapter 3.

1.6 AUTHOR'S CONTRIBUTION

The study reported in this mini-dissertation was planned and executed by a team of researchers. The contribution of each researcher is given in the following table:

Table 1.1 Authors' contributions to the study

Name	Role in the study
K. Venter	Author, responsible for literature research, gathering and interpretation of data, descriptive analysis and the preparation of this mini-dissertation.
Dr. M. van der Merwe	Study leader and co-author of the article. Supervised the descriptive analysis and interpretation of the data. Supervised the writing of this mini-dissertation. Provided funding for this project.
Dr. H. de Beer	Co-study leader and co-author of the article. Supervised the writing of this mini-dissertation.

The following is a statement from the co-authors confirming their individual role in the study and giving their permission that the article may form part of this mini-dissertation.

I declare that I have approved the article included in this mini-dissertation, that my role in the study, as indicated above, is representative of my actual contribution and that I hereby give my consent that it may be published as part of the Masters' mini-dissertation of Miss K. Venter.

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Dr. M van der Merwe

Dr. H.de Beer

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CHAPTER 2

LITERATURE REVIEW

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Food product packaging as communication and marketing tools is a critical issue with increasing importance when analysing the consumers' choice between different food products within the retail environment (Underwood & Ozanne, 1998:208; Underwood *et al.*, 2001:403; Sijtsema *et al.*, 2002:580; Silayoi & Speece, 2004:608). Moreover, the influence of appearance in food choice cannot be underestimated (Imram, 1999:225) since consumers pay more attention to the presentation of the product, than to the product itself (Solomon, 2007:73). Thus, packaging is an important communication medium and one of the important factors influencing consumers' decision on whether they will accept a product or not. The packaging also contributes to consumers' initial perception regarding the value and quality of the product (Underwood & Ozanne, 1998:208).

Consumers base their choice of a product on their perception of product attributes of that particular product (Garber, 1995:653, 660; McNeal & Ji, 2003:402) and their choice is also influenced by the visual attributes of the packaging at the POP (Wells *et al.*, 2007:684). However, limited research exists on the role of packaging in shaping consumers' perceptions regarding a product (Ampuero & Vila, 2006:100), especially regarding the South African consumer. This lack of research was the motivation for this study which aimed to explore consumers' perceptions of food packaging and specifically how these perceptions are formed through the perceptual process in a South African context. Insight gained from such a study might lead to an understanding of which packaging attributes play a key role in forming consumers' perceptions and can aid marketers and retailers alike in understanding consumers' choice of product.

2.2 THE MARKETING AND LOGISTICAL ROLE OF PACKAGING

In order to understand how food product packaging influences consumers, it is important to define what packaging implies. A food container is "any packaging of foodstuffs for sale which completely or partially enclose the foodstuff and includes wrappers" (SA, 2007:73). According to Prendergast and Pitt (1996:61) as well as Lee and Lye (2003:164), packaging is more than just a container as its primary functions are to protect the product it contains, to attract attention, provide identification and information and to increase convenience of usage. The above-mentioned wrappers (SA, 2007:73), or packaging labels function as the packaging source of

information and product identification as well as attracting attention. A label is defined as “any descriptive matter written, printed, stencilled, marked, embossed or impressed upon, or permanently attached to a container of a foodstuff, including labelling for the purpose of promoting its sale or disposal” (SA, 2007:77). In a study done by Peters-Texteira and Badrie (2005:511), the most important factor influencing 45% of participants’ food choice was food labelling. Thus, for the purpose of this study the visible part of the packaging which comprises of the mentioned functions, including a label, will be referred to as the sales packaging specifically related to food products.

Sales packaging functions refer to either marketing or to logistic functions (Prendergast & Pitt, 1996:61; García-Arca & Prado, 2008:376), and are also used to classify the different roles of sales packaging in this study. For the purpose of this study, sales packaging would, therefore, also refer to a container with both the marketing and logistical functions on it and whereby information is mainly conveyed through the label. The logistical role of sales packaging entails the structural elements such as size, shape and manufacturing materials (Underwood *et al.*, 2001:405; Ampuero & Vila, 2006:100). The type of manufacturing material such as paper or paperboard, metals, plastics and glass relies on aspects of the product, such as the qualities of the product and its design (Lee & Lye, 2003:165). Logistically it is mainly required that food products are protected (Silayoi & Speece, 2007:1497) and well contained throughout transportation and storage until they are used (Prendergast & Pitt, 1996:65).

The marketing role of food product packaging consists of a number of elements of interest to consumers, which can be divided into two main categories, namely visual elements (graphics such as colour and images, size and shape) and informational elements such as label information and technology used (Silayoi & Speece, 2004:610; Ahmed *et al.*, 2005:763; Ampuero & Vila, 2006:100; Silayoi & Speece, 2007:1498). The mentioned visual aspects of sales packaging have a definite effect on the choice consumers make at the POP (Garber, 1995:653; Wansink & Huffman, 2001:235). However, consumers often make choices under time constraints in an environment filled with various products competing for their attention (Pieters *et al.*, 1997:281). Therefore, it is important to pay attention to these aspects of sales packaging at the POP in the retail environment since product packaging is a valuable marketing tool where choices are made between different products.

2.3 FOOD PACKAGING AT POINT OF PURCHASE IN THE RETAIL ENVIRONMENT

Consumers cannot make a purchase in the retail environment without direct exposure to the packaged product, which acts as an advertisement itself (Underwood & Ozanne, 1998:208). The packaging thus represents the product at POP and information is needed to understand how sales packaging influences consumers' impression of the product through consumer research, such as the present study. Appearance of the sales packaging at the POP is considered as one of the dominating influences on consumers' acceptance of products (Imram, 1999:226). Underwood *et al.* (2001:403) also state that the most important role of product packaging is to gain the attention of the consumer at the POP. Since consumers predominantly prefer the products which visually attract their attention (Pieters *et al.*, 1997:286), the sales packaging must be attractive or eye catching.

The ability of packaging to create differentiation amongst competing products is acknowledged by Ampuero and Vila (2006:100), and the variety of available food products complicates consumers' choices and it demands an effort from manufacturers to attain efficient variation between products. According to Silayoi and Speece (2004:607), the product on the shelf with a prominent sales packaging is most likely to be the product of choice. Thus, product packaging has the advantage of influencing the consumer's product choice within the retail environment and an understanding of the attention consumers pay to sales packaging is needed. Products must be salient and clearly differentiated from competitive products (Wansink & Huffman, 2001:233). Furthermore, marketers have to upgrade their product communication in the competitive retail industry (Underwood & Ozanne, 1998:208), since packaging conveys messages to the passing consumers. Thus, if their interest is not stimulated, consumers will not pay much attention to it (Silayoi & Speece, 2007:1498, 1500).

Creusen and Schoormans (2005:68) also state that the first step to enable consumers to purchase is primarily through visual sales packaging attributes to attain their attention. Increased packaging size and the use of bright colours improve the product's ability to gain attention (Creusen & Schoormans, 2005:68). Thus the packaging must be able to elicit a positive response from the consumer (Silayoi & Speece, 2004:607), which could result in a product purchase. Consequently, if consumers do not notice a product due to poor packaging communication, no possible purchase can be made.

In order to utilize the effect of food product packaging fully, it is important to understand the response consumers have when exposed to packaging (Silayoi & Speece, 2004:609).

Packaging creates the difference between a favourable or unfavourable opinion of a product (Ahmed *et al.*, 2005:763) and impressions of the product are based on the visible part thereof (Underwood & Ozanne, 1998:208). According to Garber (1995:660), consumers' choice of products is based on a perception of a particular product. Product attributes, such as package shelf appeal of the packaged product, play a definite role in the way consumers perceive a product (Wansink & Huffman, 2001:235; Silayoi & Speece, 2004:610). Silayoi and Speece (2007:1498) also state that consumers definitely shape their perception of a product through the sales packaging. Thus, an understanding of consumers' perceptions is needed to know how certain packaging attributes affect their choice of product. This study aimed to understand the role sales packaging attributes play in the formation of consumers' perceptions which might lead to an understanding of what attributes of food packaging consumers prefer.

2.4 CONSUMER PERCEPTIONS AND FOOD PACKAGING

Perception can be defined as a process through which consumers select, organize and interpret stimuli (Schiffman & Kanuk, 2007:152) and their interpretation of the communicated stimuli (Kotler & Keller, 2006:185). Consumers' perception of a certain product mainly depends on the product's communication (Silayoi & Speece, 2004:610), as a result of exposure to the sales packaging and its attributes (Solomon, 2007:49).

Sales packaging characteristics as the stimuli on the one hand and visual observation and interpretation of the consumer at the POP on the other hand are needed to form a perception (Sijtsema *et al.*, 2002:568). It can, therefore, be said that the sales packaging attributes serve as stimuli that have an influence on consumers' perceptions. These attributes include packaging colour, typography, graphical shapes and images, text, design, logo and illustrations (Underwood *et al.*, 2001:405; Ampuero & Vila, 2006:102). Furthermore, packaging is an integrated part of products and consumers perceive the product and its sales packaging as a unit (Ahmed *et al.*, 2005:778; Silayoi & Speece, 2007:1498). Therefore, it can be argued that the sales packaging represents the product at the POP and if the sales packaging stimuli are unable to attract the attention of consumers, there is no input into the perceptual process, and consequently there can be no output or perception.

The occurrence of consumers incapable of forming a perception is known as perceptual blocking (Schiffman & Kanuk, 2007:162). Perceptual blocking or defence is the result of the overwhelming amount of stimuli attempting to communicate with consumers at the POP. Consumers thus protect themselves by consciously blocking certain stimuli (Schiffman & Kanuk, 2007:162). Solomon (2007:65,68) states that perceptual blocking entails that consumers pay

attention to what they want to see and because of the limited capacity of the brain to process information, the rest of the stimuli may not be processed. Thus, the inability of packaging to attract the attention of consumers is a blocking mechanism in the perceptual process. Product attributes serve as the information input into the perceptual process which is transformed into the eventual perception (output) shaped through the information processing system (Mowen & Minor, 2001:39; Solomon, 2007:49). Thus, the stimuli must be processed through the information processing system to result in the eventual consumer perception. Therefore, this study was done in order to understand how certain sales packaging stimuli affect consumers' perceptions as they influence consumers' product choice.

2.5 THE CONSUMER INFORMATION PROCESSING MODEL

The perceptual process is an intricate process of the senses and the mind, influenced by a number of variables that are inter-twined and hard to distinguish between (Sijtsema *et al.*, 2002:569). Mowen and Minor (2001:38, 39) developed a basic consumer information processing model which was used as the main focus of this study (Figure 2.1) and explains how perceptions are formed. For the purpose of this study, the focus was on visual stimuli and variable factors such as involvement, memory, experiences, beliefs, moods and expectations are not considered in the perceptual process which results in the final consumer perception.

This study was approached from a systems perspective consisting of interrelated parts that all contribute to a common goal (Payne-Palacio & Theis, 2001:34). Applied to the perceptual process, the mutual goal is to acquire consumers' perception regarding food packaging through system input, system transformation (exposure, attention, comprehension) and system output. By applying the systems perspective to the perceptual model, a better understanding of the way in which the different parts of the perceptual process interrelate can be acquired (Spears & Gregoire, 2004:1). The system input consists of the information that consumers obtain through their different senses, which serve as stimuli (Solomon, 2007:49). The stimuli in this study specifically relate to the communication of sales packaging of food products as visually observed by consumers at the POP. These stimuli are processed by the consumer through three basic steps called the perceptual process, to result in the consumers' perception as a system output (Mowen & Minor, 2001:39). A brief discussion of each of the system steps will follow.

2.5.1 System input: Sales packaging communication with the consumer at point of purchase

Through determining which product attributes are important to consumers, it may be possible to establish the importance of a certain product in the consumer's mind (Solomon, 2007:73). Effective communication of product advantages through the design of the packaging determines consumers' first and sometimes lasting impression thereof (Creusen & Schoormans, 2005:64). Therefore, it is possible to influence the consumer's perception through the use of product packaging, because as mentioned before, consumers do not differentiate between the sales packaging and the product (Ahmed *et al.*, 2005:778). Thus, the product design will serve as stimuli through which consumer perceptions are formed and consumers will ultimately choose the product that, according to their perception, can communicate its value the best.

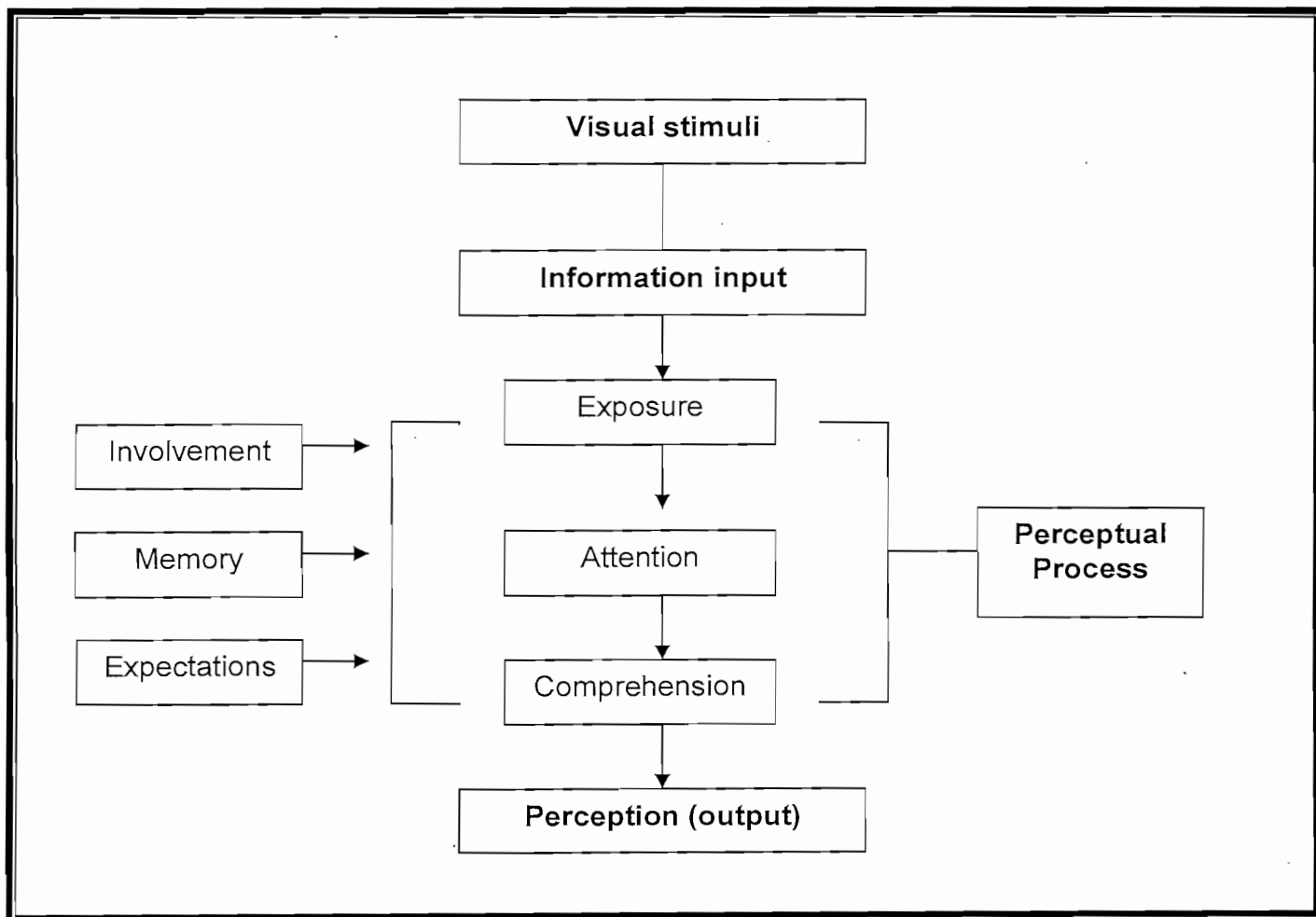


Figure 2.1 The consumer information processing model (Mowen & Minor, 2001:38)

2.5.2 System processing: The perceptual process

Within the extremely competitive food retail industry, contenders can obtain an advantage by incorporating the ideas of the better informed consumer into their products and by responding to consumers' ever changing needs (Newman & Cullen, 2001:447). Insight into the perceptual process and product attributes most relevant to consumers' information processing process is needed (Sijtsema *et al.*, 2002:566), in order to design a competitive sales packaging that can communicate its value in the cluttered market (Nancarrow *et al.*, 1998:111). Thus, products which elicit positive perceptions can be created, but a better understanding of consumers' response to packaging is needed to maximise the existing effect of packaging on consumers (Silayoi & Speece, 2004:609).

The perceptual process can be used to reveal information regarding the way consumers form perceptions of food as a result of the packaging (Figure 2.1). Product exposure is the first phase of the process and occurs when consumers are exposed to the product to obtain all available information. Information is the stimuli within reach which consumers receive by means of their senses (Mowen & Minor, 2001:39, 40; Solomon, 2007:60) and in this study refers to the visual stimuli of the sales packaging of food products.

During the second phase consumers have to pay enough attention to the packaging in order for information processing to occur consciously (Mowen & Minor, 2001:39, 45). As mentioned, consumers select stimuli when exposed to food packaging and only these stimuli are processed (Solomon, 2007:66). With the successful processing of information through which consumers understand the product, the third phase, namely comprehension or interpretation, is completed (Solomon, 2007:49). Although consumers' interpretation of the same sales packaging results in multiple perceptions (Schiffman & Kanuk, 2007:167), this study aimed to explore which visual stimuli input most consumers regarded as important for the eventual perception formulation.

2.5.3 System output: Perception of the product

Imram (1999:226) reported that consumers' perception of food products is influenced by a number of individual sensory attributes. Apart from individual sensory attributes, several interrelating factors such as attitude, habit, status, demographic variables, preference and aversion may all contribute to the concluding perception consumers have regarding a particular food product (Sijtsema *et al.*, 2002:566). However, once consumers have formed their perception of a product, the perception will be converted into attitudes which will have an impact on the consumer's behaviour and consequent purchasing decisions (Ampuero & Vila, 2006:110).

The importance of consumer perceptions and the way they are shaped through product attributes, make it worthwhile to investigate which product attributes consumers value the most. These attributes influence consumer perceptions directly and if positive perceptions are formed, consumers react positively towards a product which may result in a product purchase. Therefore, this study focused on the product attributes consumers themselves indicated as most important in influencing their final perceptions.

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CHAPTER 3

AN EXPLORATORY INVESTIGATION OF CONSUMERS' PERCEPTIONS AND PERCEPTUAL PROCESS REGARDING FOOD PACKAGING

(Article to be submitted for publication in the British Food Journal)

**An exploratory investigation consumers' perceptions and perceptual process regarding
food packaging**

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ABSTRACT

An exploratory investigation of consumers' perceptions and perceptual process regarding food packaging

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Purpose – Since consumers' perceptions have a direct influence on their choice of food product, this study focused on exploring consumers' perceptions regarding food packaging and how perceptions are formed through the perceptual process.

Design/methodology/approach – This study was conducted through semi-structured interviews and a projective technique, using mock packaging, to obtain information of a qualitative nature. Participants were questioned regarding their general perceptions of food packaging, as well as their comprehension thereof after exposure to the packaging.

Findings – The results indicated that the consumer's perceptions regarding food packaging attributes can be divided into functional and physical food packaging attributes. Their perceptions are formed through information and appearance attention capturing attributes of sales packaging as stimuli. Their interpretation of food packaging consists of general food packaging associations and negative food packaging associations.

Research limitations/implications – Regardless of the restrictions posed by qualitative research, the study contributes to a better understanding of sales packaging attributes consumers regard as most important in gaining their attention, resulting in positive perceptions regarding food packaging.

Practical implications – The results indicated that consumers have specific perceptions of food packaging and that packaging influences consumers' perceptions of products which needs further quantitative investigation.

Originality/value – Little research has been done on consumers' perceptions regarding food packaging, especially in the South African context, therefore this research can be regarded as original.

Keywords – Consumers; food packaging; perceptions; perceptual process; South Africa; stimuli.

Classification – Research paper.

INTRODUCTION

Product attributes such as package shelf appeal of the packaged product play a definite role in the way consumers perceive a product at the point of purchase (POP) (Wansink and Huffman, 2001; Silayoi and Speece, 2007). The product attributes such as increased packaging size and the use of bright colours improve the product's ability to gain attention (Creusen and Schoormans, 2005) and product attributes also serve as the stimuli needed to form a perception regarding the product (Sijtsema *et al.*, 2002). According to Ampuero and Vila (2006), once consumers have formed their perceptions of a product, the perceptions will be converted into attitudes which will affect consumers' product choice. One way of establishing the importance of a certain product in the consumers' mind, is to determine which product attributes are important to them (Solomon, 2007). The product packaging as stimulus thus has a definite effect on the way consumers perceive a product and their consequent product choice. Insight into the packaging stimuli which consumers regard as important can, therefore, be incorporated into product packaging, that may result into more positive perceptions of food products.

Limited research has been done on product aspects drawing consumers' attention at the POP (Pieters *et al.*, 1997) or the role of packaging in shaping the perceptions consumers have regarding a product (Ampuero and Vila, 2006). Although little research is available regarding packaging in general, even less information is available regarding food packaging specifically. This lack of research, especially in the South African context, was the motivation for this study which aimed to explore a group of South African consumers' perceptions of food packaging. Furthermore, the study aimed to explore the perceptual process as part of the information processing system to shape consumer perceptions as suggested by Mowen and Minor (2001). However, due to the qualitative exploratory nature the study will not attempt to draw conclusions regarding the perceptions of the general South African consumer.

LITERATURE REVIEW

Consumer perceptions of food products are mainly influenced by product packaging as they pay more attention to the way a product is presented than to the product itself (Solomon, 2007). Product packaging has a number of well-known primary functions such as protecting the product it contains, attracting attention, providing identification and information, and increasing user convenience (Prendergast and Pitt, 1996; Lee and Lye, 2003). The part of the packaging that contains the basic food product as consumers see it in-store are referred to as the primary packaging or sales packaging (Gustafsson *et al.*, 2006:71). In the current study this will be referred to as sales packaging fulfilling the above-mentioned functions. Sales packaging

functions refer to either marketing or to logistic functions (Prendergast and Pitt, 1996; García-Arca and Prado, 2008), and are also used to classify the different roles of packaging in this study.

Within the retail environment, there is a definite communication exchange that exists between the sales packaging and the consumer (Underwood and Ozanne, 1998). Product communication is responsible for the perceptions consumers have regarding products (Silayoi and Speece, 2004) as a result of exposure to the product packaging and its attributes (Solomon, 2007). The effective communication of product advantages through the design of the product, determines consumers' first and sometimes lasting impression thereof (Creusen and Schoormans, 2005). It is, therefore, possible to influence consumers through the use of sales packaging. Appearance of sales packaging at the POP is considered as one of the dominating influences on consumers' acceptance of products (Imram, 1999) since consumers do not regard the packaging and product separately (Ahmed *et al.*, 2005). Creusen and Schoormans (2005) also state that the first step to enable consumers to purchase is primarily through visual sales packaging attributes to attain their attention. In a study done by Wells *et al.* (2007), 73% of participants stated that they use sales packaging to assist them into making a choice between products at the POP.

Consumers' choice of products is based on a perception of a particular product (Garber, 1995; McNeal and Ji, 2003) and consumers' initial perception regarding value and quality of a product is created based on the visible part thereof, namely the sales packaging (Underwood and Ozanne, 1998). Perception can be defined as a process through which consumers select, organize and interpret stimuli (Schiffman and Kanuk, 2007) and their interpretation of the communicated stimulus (Kotler and Keller, 2006). A positive perception of the product can thus be created if the right message is communicated by the product, through the sales packaging stimuli, to the consumer. Therefore, it is important to pay attention to these aspects of sales packaging at the POP in the retail environment since product packaging is a valuable marketing tool where choices are made between different products.

The communication between the consumer and sales packaging of food products is largely a result of exposure to the product packaging and the attributes thereof (Solomon, 2007). Product attributes serving as stimuli and visual observations of the perceptor, underly the foundation of perception (Sijtsema *et al.*, 2002). These stimuli serve as the system input and are processed by the consumer through three basic steps called the perceptual process. This stimuli transforms into the eventual perception as a system output through the information

processing system (Mowen and Minor, 2001; Solomon, 2007). The stimuli in this study specifically relate to the communication of sales packaging of food products as observed by consumers at the POP.

METHOD

Research design

The study design was a combination of descriptive and exploratory research as both these research designs aim to gain insight into consumer perceptions and describe their behaviour (Shao, 1999). Exploratory research leads to a greater understanding of a certain concept and also aids in defining a problem (McDaniel and Gates, 2007) such as an under-explored topic like consumers' perceptions regarding food packaging. A qualitative approach to the study was chosen as this type of research is appropriate for a study with an exploratory nature (Hoepfl, 1997). Strydom and Delpont (2002) are of opinion that an approach of this nature is also appropriate to obtain in-depth and detailed information of consumers' opinions. The qualitative approach is also known to result in more rich information than statistical research (Hoepfl, 1997), which was of importance to this study where participants' perceptions and general thoughts of food packaging were of interest.

Research sample

The study was conducted using particular inclusion criteria for participants to take part in the study. These criteria were that they had to be a user of packaged food products and the main food purchaser of the household, as these participants are responsible for making the food choices at the POP. Respondents also had to be older than 18 years as most consumers only start doing their own grocery shopping after finishing school or when leaving their parental home at this age. Due to the exploratory nature of the study, participants were not excluded as a result of their sex as information on all consumers was regarded as valid, as long as they were the main purchaser of packaged food in the household. However, the participant sample was restricted to Potchefstroom, a town in the North-West Province of South Africa, as this area was easily accessible for research and the hometown of the North-West University and researcher.

The participants were recruited by applying the snowball sampling method as described by Strydom and Venter (2002) which is especially valuable in gaining information regarding a relatively unknown topic such as explored in this study. As part of purposive sampling, snowball

sampling enables the researcher to choose participants according to their relevance to the inclusion criteria (Henning, 2004) with referrals from initial participants (McDaniel and Gates, 2007). Thus, the first couple of participants were randomly picked according to the inclusion criteria and they were asked to provide the names of other participants who were likely to fit the inclusion criteria. Only one group of participants was asked to take part in the entire study as adequate data saturation was reached after interviewing 25 participants. The researcher also wanted to gather information using different data collection techniques with the same group of participants in order to gain trustworthiness through triangulation (De Vos, 2002).

Due to the nature of the sampling method, participants were not recruited in store as consumers are often in a hurry while shopping or feel uneasy about participating. Possible participants were asked to participate through a phone call beforehand, through which the researcher determined whether the likely participant fitted the inclusion criteria. If participants agreed to take part, they met the researcher at a fairly quiet location where there would be no disturbance or influence on participants' concentration. The location varied for most participants as the researcher attempted to choose a location convenient to them to ensure no discomfort or wasting of their valuable time as proposed by Schiffman and Kanuk (2007).

Ethical considerations

This study was approved by the North-West University Ethics Committee (reference number 06K09). Furthermore, the participants agreed to participate in the study willingly and gave their written consent to be audio recorded for data analysis purposes only (included as Appendix A). The participants were inducted and told what was expected of them before the start of the interview and that there were no right or wrong answers, as suggested by Schiffman and Kanuk (2007). They were also ensured of their anonymity as no participants' name would be mentioned in the study and that all information would be handled discreetly (Strydom, 2002a; Schiffman and Kanuk, 2007). The signed participation agreement also permitted them to withdraw from the study at any point if they so wished.

Data collection

Data collection for this study took place during June and July 2006 and two different data collection techniques were used, namely semi-structured interviews and mock product packagings as a projective technique. This enabled the researcher to view the research topic from various angles in order to see more than one aspect thereof (De Vos, 2002). A pilot study was conducted on both data collection methods in order to obtain experience and to test the

relevance of the proposed questions in order to improve them (Hayes and Orrell, 1993; Wilkinson and Birmingham, 2003). Furthermore, conducting the pilot study helped to formulate the research problem and the research planning was refined according to problems identified through piloting (Strydom, 2002b).

Semi-structured interviews

Semi-structured one-to-one interviews were conducted as the researcher wanted to acquire detailed information (Wilkinson and Birmingham, 2003), regarding participants' perceptions of food packaging. The interviews were guided by a list of predetermined open-ended questions as proposed by Shao (1999) and Greeff (2002), which did not have preset answers and gave participants the opportunity to respond more freely. Simultaneously, it allowed the researcher to probe participants within the area of interest to elaborate on their responses (Shao, 1999; Wilkinson and Birmingham, 2003).

To ensure that no data was lost, audio recordings of the entire conversation with each participant were made in addition to field notes, which enabled the researcher to obtain a more detailed statement than would have been possible by only using field notes (Hoepfl, 1997; Wilkinson and Birmingham, 2003). Field notes, such as impressions of the participant or something which was not captured by die audio recordings (Greeff, 2002), were helpful in refreshing the researcher's memory after the interview was done.

Interviews were conducted until data saturation was obtained according to the research objectives as proposed by Hoepfl (1997), which was reached after 25 interviews. According to Strydom and Delport (2002), data saturation is reached when no new information or diversity thereof is found through data collection. With the assistance of an interview guide, all participants were asked to answer the following question: What are your thoughts regarding food packaging in general off the top of your head? This question aimed to explore consumer perceptions in general without any prompting from the interviewer. Directly after answering the above question, the same participant took part in die projective technique part of the study.

Projective technique

The use of projective techniques explores the subconscious thoughts of participants with the use of stimuli (Schiffman and Kanuk, 2007) or prompts and complements other qualitative research techniques such as depth interviews, in order to gain a better understanding of the participants perceptions (Donoghue, 2000). According to Donoghue (2000), the more ambiguous the stimuli presented to participants, the wider the response alternatives given by

participants are, which may lead to richer information as participants have to make their own interpretations projecting their true perceptions. Serving as visual stimuli (Shao, 1999), the same participants were, therefore, presented with three different types of randomly picked mock packagings. These packagings were empty and without any labels or information on them. Participants were presented with the packaging one at a time and had to answer two questions regarding the packaging before they were handed the next mock packaging, in order to determine their perceptual process regarding the package. After exposure to the packaging, the participants were firstly asked: "What would you change about this packaging in order to draw your attention?" This was asked in order to determine the attention capturing ability of the product as part of the perceptual process. Thereafter, they were asked: "What do you understand about the product inside this type of packaging?" This question aimed to explore consumer comprehension of different food packagings. The same procedure of data collection as with the semi-structured interviews was followed until satisfactory data saturation was reached after 25 interviews of between 20 – 40 minutes each.

Data analysis

The data obtained through the recorded semi-structured and mock packaging interviews were transcribed verbatim in the participants' original language. The transcribed data were checked against the field notes to ensure a complete set of data (Greeff, 2002). The researcher cautiously translated the Afrikaans statements into English to ensure that the original meaning of the participants' statements was maintained. The translations were checked by peer researchers for accuracy.

The transcripts were used to analyse the data line by line for each participant, highlighting the keyword in each line as suggested by De Vos (2002). In order to conduct the analysis, participants' statements were grouped into logical concepts and categories (Wilkinson and Birmingham, 2003) for each type of packaging separately and organised in different tables according to the relevant question asked during data collection. This was done through open coding where statements with the same meaning or keywords were grouped (Hoepfl, 1997) which enabled the researcher to indicate patterns in the text and give meaning thereto (Wilkinson and Birmingham, 2003). Concepts were further refined to sub-concepts as data were continually modified and coding was repeated as recommended by Hoepfl (1997). Finally, themes were identified for the data sets from both the semi-structured interviews and projective technique. Thereafter, data were interpreted and results summarised by the researcher.

Strategies used to ensure trustworthiness

During this study, trustworthiness was ensured by using the model of Lincoln and Guba (1985) and the principles of Krefting (1991), while some strategies described by authors such as Maykut and Morehouse (1994) and Babbie and Mouton (2001) were also included. Table 1 provides a summary of these strategies applied to ensure trustworthiness of data obtained by this study.

The use of the same question guide for every participant allowed the study to obtain reliability because it is possible to acquire the same set of results when following the exact same research procedure as before with different respondents (Hayes and Orrell, 1993). Credibility was further enhanced through triangulation of measures (Hoepfl, 1997).

Table 1 Strategies to ensure trustworthiness in a study on consumers' perceptions of food product packaging

Strategy	Criteria	Application
Credibility	Field experience	A pilot study was performed to explore the research setting. Twenty five semi-structured interviews were conducted. The same 25 participants took part in the projective technique in which mock product packaging was used.
	Reflexibility	Field notes were compared to audio recordings and transcribed data.
	Triangulation	Semi-structured interviews and projective techniques were used as data collection methods. Data collection with the use of verbatim transcripts and field notes. Verbatim transcripts were quoted in the results in original words of participants. Concepts and themes were identified and argued by the research team.
	Peer debriefing/review	Raw data were analysed by co-researchers.
	Data collection techniques	Discussions with other researchers.
	Selection of sample	Pilot study on interviews.
Transferability	In-depth description	Pilot study using the projective techniques and mock packaging.
	Dependability audits	Purposeful sampling was used, recruiting participants through the snowballing method.
	Dense description	Description of methodology and results accompanied by verbatim quotations.
	Triangulation	Detailed analysis of themes and concepts controlled by experienced researchers.
	Peer examination	Detailed description of methodology.
	Question guide	Twenty five semi-structured interviews and 25 mock packaging questions were transcribed and compared to interviews and mock packaging data.
	Conformability audit	Open coding method.
	Reflexibility	Frequent discussions with colleagues.
Conformability	Reflexibility	Each participant was interviewed according to the same question guide.
	Reflexibility	All records and transcripts were kept.
	Reflexibility	Field notes were made and used for data analysis.

RESULTS AND DISCUSSION

Results will be discussed according to the two set objectives of the study. The most important themes and categories were identified and refinement of themes was done through identified concepts and sub concepts. The most prominent of these were explained using the literature and participants' own statements to support the concepts.

OBJECTIVE 1: CONSUMERS' PERCEPTIONS REGARDING FOOD PACKAGING

The first objective of this study was to gain insight into the perceptions consumers have regarding the packaging of food products. Participants were asked to answer the question "What are your thoughts regarding food packaging in general off the top of your head?" during the interview without any guidance or exposure to packaging, known as unprompted awareness. Unprompted awareness measures the respondent's ability to recall aspects of the study such as perceptions and it gives an indication of which elements of food packaging are more prominent in consumers' minds than others (Patterson *et al.*, 2003). The theme for the first objective was packaging attributes perceived by participants. Two categories, namely functional and physical food packaging attributes, were identified from the verbalised data obtained after all the semi-structured interviews were analysed.

THEME 1: Packaging attributes perceived by participants

Category 1: Functional food packaging attributes

The category of functional attributes was addressed through the concepts of resealable packaging, easy opening method, practical packaging requirements, purposive packaging, packaging recycling, reusability of packaging and information on packaging. The most prominent of these concepts was **purposive packaging, packaging recycling and information on packaging**, which will consequently be discussed in more detail.

Some participants were adamant that packaging needs to **serve a purpose** ("It must not just look pretty, it must be able to help with the preparation of the product and to keep it fresh") and that packaging needs to protect the food ("packaging must support the contents, no matter what it is"), which is also considered as one of the main functions of sales packaging (Prendergast and Pitt, 1996). Participants also considered the type of packaging and its effectiveness ("It must be strong material, not something that tears easily or damages the product").

An interesting response regarding environmental concerns was raised (“Food packaging is responsible for a lot of pollution”), indicative of increasing environmental awareness concerns regarding the reality of food packaging’s contribution to pollution. Prendergast and Pitt (1996) also stated that consumers increasingly recognize the effect of packaging on the environment. In accordance, participants expected manufacturers to attempt to use **recyclable materials for packaging** (“... they must start using minimum packaging that is not recyclable”) and that an effort should be made to protect our natural environment (“It must contribute to the protection of the environment”). This illustrated that participants were aware of both effective and functional properties of food packaging (“When a product has too much packaging, it is not functional and not effective” and “I don’t want this big jar which only contains a few cherries”). Rundh (2005) also stated that consumers expected functional properties from packaging ranging from the possibility to recycle and reuse packaging, reduced use of packaging and more environmentally friendly packaging.

A total of 28% of the participants indicated that **information** on food products is important as some even based their choice of product on the information provided (“Sometimes when you can’t decide between different products, I base my decision on the information provided on the packaging”). Wandel (1997), stated that the information on food packaging provides product information needed by consumers regarding a product they want to buy. Therefore, without relevant product information, consumers may select a product that may not meet their needs. Product packaging must function as the communicator of product information which can assist consumers in making the right choice in food products (Silayoi and Speece, 2007). Furthermore, packaging contributes to product identification and recognition (“I think packaging enables you to recognise the product”) and the information provided must be descriptive of the contents. Once again, these illustrate the informative aspect that participants expect from packaging.

Category 2: Physical food packaging attributes

Physical attributes of food packaging were identified as a second category and consisted of the following concepts: simple packaging, **packaging of quality**, **hygienic packaging** and **attractive on-shelf presentation**. The most prominent concepts were the last three concepts and will consequently be discussed.

It was clear that the participants regarded food safety and hygiene as very important aspects of packaging (“I want to be sure that the original packaging was done hygienically”). According to Ching Biu Tse (1999), the **perceived product quality** is directly influenced through the perception consumers have regarding product safety. Results of the current study indicated that participants perceive a relationship between the quality of the packaging and the quality of the product. If participants thus experience product packaging to be unsafe, they will perceive the product to be of lesser quality.

There also seemed to be a link between the participants’ perceptions of neat packaging and **hygiene** (“If they are not neatly packaged it will surely influence me because then it is not hygienic”). Participants were also convinced that the environment surrounding the product must be free from any smells. Distinct odours can adversely affect a choice between products or their perception of the hygiene status of the product (“And there must not be any smells”). It was indicated that packaging influences one’s perception regarding the product (“The packaging forms some part of your perception of the product”). Vranešević and Stačec (2003) stated that packaging has a definite influence on consumers’ perceived product quality which was also reflected in participants’ statements (“I think packaging makes the difference between one’s idea of a quality product and something of lesser quality” and “You can clearly indicate the quality of the product through the packaging). Thus, if participants perceive the packaging of the product to be of good quality, they will perceive the product be of good quality too.

Simplified packaging was also associated with cheaper prices and consequently, inferior product quality (“It is no name brands because the packaging is so plain, therefore I expect to pay less”). In addition, the design on the packaging can also contribute to an impression of quality (“It has antique illustrations on, which gives the impression of something more durable”). Participants expected packaging to have an **appealing appearance** (“They must present it in such a way that it looks tasty and attractive”) which was also indicated by Nampak’s research on meat packaging which found that the consumer of today expects meat products to be aesthetically appealing and not to appear shop-worn (Payne, 2007). Participants also stated that packaging must appear graphically attractive (“It must look fancy”). A neat appearance also influenced their perception of the product (“Packaging puts a product in another class”) and consequently contributed to a positive impression of the product (“One automatically accepts that if a lot of effort was put into the outside, the contents is also taken good care of”). This is also emphasized by Ahmed *et al.* (2005)

who indicated that consumers do not distinguish between the product and the packaging, but perceive it as one. Lastly, participants believed that the packaging must match the product on the inside (“Depending on the product, the packaging must match”).

OBJECTIVE 2: CONSUMERS’ FORMATION OF FOOD PACKAGING PERCEPTIONS THROUGH THE PERCEPTUAL PROCESS

The second objective of this study was to gain insight into the way consumers form perceptions of food packaging through the three step perceptual process (exposure, attention and comprehension). The perceptual process forms part of the information processing system as proposed by Mowen and Minor (2001) and was applied to the results of the current study as presented in Figure 1. The purpose of the applied model was to gain a better understanding of the visual stimuli which affect participants’ perceptions with regards to food packaging. The method of data collection was a projective technique where participants were handed one mock packaging at a time, also known as prompted awareness, and were then asked to answer two questions regarding the presented type of packaging. Prompted awareness is regarded as more realistic and a more accurate measure than unprompted awareness because it is used to gain a measure of recognition (Paterson *et al.*, 2003). The three different types of packaging were a glass bottle, carton box and plastic pouch which were presented empty and blank. The two questions regarding each type of packaging were specifically constructed in order to gain insight into the perceptual process.

Step one of the perceptual process is exposure (Figure 1) and in this study participants were exposed to the three different types of packaging. As in the systems theory, it is important to understand the relation of the three steps to each other and to regard them as a whole, because all three steps are needed to result in a system output. Attention is the second step in the perceptual process and is the first question (“What would you change about this packaging in order to attract your attention?”) aimed to determine what would draw participants’ attention to food packaging after exposure thereto. Followed by attention, the third step, comprehension aimed to explain what participants understood about the product in each type of packaging. The second question, “What do you understand about the product inside this type of packaging?” was, therefore, composed to give insight into consumers’ comprehension before the final perception is formed.

From the first question posed by means of the projective technique, one theme was identified namely the marketing functions of food packaging, which explained participants' perception of what would gain their attention regarding the food packaging they were exposed to during the perceptual process. A second theme was obtained from the second question which was identified as consumers' comprehension through food packaging associations and explains consumers' comprehension of packaging through the perceptual process. Together, the two themes as identified through the posed two questions, aimed to answer the second objective of the study.

THEME 1: Marketing functions of packaging

Two categories were identified within the theme of marketing functions of packaging namely, information and visual attention capturing attributes of packaging, which both drew the attention of the consumer.

Category 1: Information attributes of packaging

The first category was identified as information attributes and included the following concepts: product name, product manufacturer, product brand, content identification, product quantity, product date, nutrition value, product contents, serving suggestions, product handling and preparation method. The most prominent concepts describing this category were **content identification** and **product contents** and will be discussed in more detail.

The transparency of both the glass and plastic pouches allowed the participants to **identify** and evaluate the quality of the **content** of the packaged product. A total of 48% of the participants preferred to evaluate the product inside and did not want the label to cover the product entirely. According to the chief operating officer of a packaging group, Octal, consumers are expecting to see the product they are buying before they pay progressively more in order to evaluate it themselves (Anonymous, 2008). Participants in the current study, furthermore, highlighted that a visible product will advertise itself, which was also confirmed by Underwood and Ozanne (1998), and that little other information would be necessary on the label of a transparent package. On the other hand, 32% of participants preferred boxes with trustworthy pictures or a visual representation of the product ("I want to see what the product inside looks like" and "There must be a trustworthy picture or photo. It also helps to notice the product and to identify it"). These pictures serve as stimuli or information input into the perceptual process (Solomon, 2007) and, according to Underwood and Klein (2002), product pictures appearing on the packaging have the ability to create a more positive perception of the product. Through communicating its benefits, pictures

have an informative value as they enable consumers to compare different brands of the same product (Underwood *et al.*, 2001) and they capture the attention of consumers. Furthermore, label information played a prominent role in content identification when the product was not visible through the packaging. Participants also indicated that product visibility should be determined by the visual presentability of the product as they preferred that less appealing products should rather make use of product pictures of the prepared product.

Regarding the concept of **product contents**, 48% of participants believed that an ingredient list must be indicated at all times. Furthermore, some participants said that given information protects them, especially with the growing prevalence of health concerns, and that they prefer that preservatives, additives and allergens are always indicated (“For the sake of people with allergies, the contents must be specified”). Miles *et al.* (2006) agreed that effective labelling of food packaging could be influential in the prevention of allergic responses consumers have as a result of food intake, as food labelling is regarded as a significant source of information to consumers concerning ingredients (Wandel, 1997) on which they base their product perceptions resulting from the perceptual process.

Category 2: Visual attention capturing attributes of packaging

Visual attention capturing attributes evolved as the second category from the marketing functions of packaging (Theme 1) and included the following concepts: appealing shape, attractive colour, attention drawing product contents, stylish packaging label, pictures on packaging, packaging design and size of packaging. Concepts repeatedly mentioned were **appealing shape** and **attractive colour**.

Coherent with the second step in the perceptual process namely attention, Nancarrow *et al.* (1998) stated that packaging has been used to attract the attention of consumers through the combination of shapes, designs, messages and colour. These attention capturing visual attributes also serve as stimuli or information input into the perceptual process (Solomon, 2007). The fact that the most essential feature of a product is the exterior form or design (Bloch, 1995), which is by implication the sales packaging, was also reflected in the statements obtained from the participants during this study. Twenty percent of participants indicated that **shape** draws their attention and that something unusual would catch their eye if they had to choose between the same products in different types of packaging (“It must stand out from the rest, not conventional” and “If it has a nice

shape I will look twice”). Specifically with glass packaging, participants wanted more decorative detail on the bottle and an “old” style shape. In accordance, Belch and Belch (2007) stated that packaging shape is regarded as just as important as other design factors which all contribute to packaging appeal.

Bloch (1998) mentioned that sales packaging should attract the attention of consumers through its visual features in order to be successful and that **colour** play a definite role in analysing products (Soars, 2003). These features are also applicable to the presented packaging of food products as data of this study pointed out that colour as a sensory feature, was a key issue in 64% of the participants’ choice of product. Food products were associated with bright colours such as red, yellow, orange and lime green. Certain colours were also associated with certain flavours and participants wanted the packaging colours to match the product inside (“The colour will be determined by the packaging contents and the brand’s distinctive colours”). According to Klimchuk and Krasovec (2006), colour associations vary across countries and cultures and certain colours can imply multiple meanings such as brand associations, different flavours or feelings. However, if colour is applied correctly in product design, it is regarded as one of the most influential aspects of packaging as consumers are likely to identify the colour of a package first (Klimchuk and Krasovec, 2006).

THEME 2: CONSUMERS’ COMPREHENSION THROUGH FOOD PACKAGING ASSOCIATIONS

Participants expressed their comprehension of different types of food packaging through two categories, namely their general food packaging associations and negative food packaging associations. Packaging comprehension is the last of the three steps in the perceptual process before consumers form their actual perception (output of the system) of the product (Mowen and Minor, 2001).

Category 1: General food packaging associations

The first category of general food packaging associations was addressed through the concepts of specific food product packaging and food product characteristics. The concepts were further divided into sub-concepts and participants’ perceptions regarding each type of packaging are discussed separately.

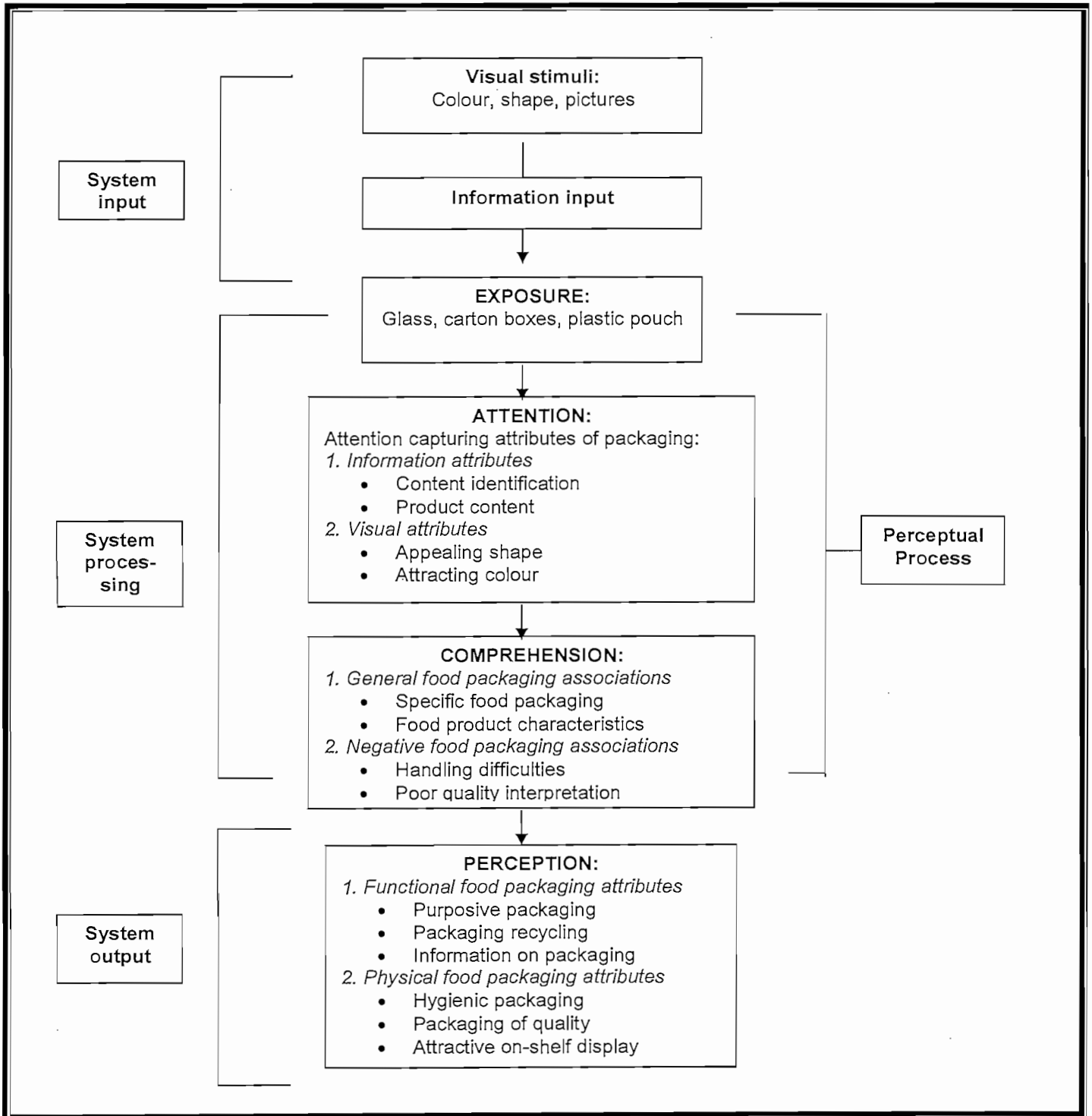


Figure 1 Application of stimuli affecting participants' perceptions regarding food packaging (as adapted to Mowen and Minor, 2001).

Specific foods mainly associated with *glass bottles* were special jams, pickled products, sauces and general preserved goods (“Pickled products or preserved products like fruit, cocktail onions or olives”). *Plastic pouches* were associated with more expensive types of products such as olives, biltong or seeds. Plastic packaging as sales packaging enabled the food industry to present consumers with food products of higher quality and an extended shelf life (Gustaffson *et al.*, 2006). *Carton boxes* were related mainly to dry products such as rice, rusks and soup or sauce powders. Only as recently as 2004, has Sainsbury announced that they are changing some of their food products from cans to cartons (Gustaffson *et al.*, 2006). Therefore, it might take some time for consumers to get use to the change in traditional packaging they have associated with some products for years. It was of special interest to note that participants in the current study’s comprehension of carton boxes reminded them of medicine products or containers for toys (“I am struggling to associate it with food I know it has to be, but my first impression is medicine”). It is evident that participants have certain associations with products and packaging generally found in the food retail industry. Manufacturers will need to consider existing associations if they want to package food products in non-traditional packaging. An aspect not covered during the current study, was whether participants will still purchase a food product if, according to their perceptions, the packaging thereof does not fit the product. It is, therefore, recommended that this matter be investigated in further research.

Table 2 Describing food packaging characteristics as part of participants’ comprehension of food packaging

Food product characteristic	TYPE OF PACKAGING		
	GLASS	CARTON BOXES	PLASTIC POUCHES
Long storage possible	Perceive glass as durable; product can be reused; product must stay fresh for long otherwise the glass is wasted	Can store for long without refrigeration; cannot spoil easily; mostly used for non-perishables	Mostly contain long life products that do not need refrigeration; sealed very well.
Quality association	Product was more hygienically handled; glass represents durability; makes product more classy and sophisticated	Solid packaging that will keep the product well; reliable in South Africa	Packaging is sealed well and strong; contents is hygienic

Within the concept of **food product characteristics**, two sub-concepts repeatedly emerged for all three types of packaging as summarised in Table 2, namely long **storage possible** and **quality association**. A concern raised with *glass packaging* was wastage of the glass when the product had a shorter shelf-life. Participants indicated that they wanted to store or use food in a glass container for a long time. Long-term storage of *carton boxes* was motivated by the associated non-perishable foods stored in this type of packaging. *Plastic pouches* were also regarded as intended for long-term storage because they are well sealed and mostly contain long life products. *Glass bottles* were perceived to present durability and were associated with more classy and sophisticated products. Furthermore, the product packaged in glass seems to be handled more hygienically. Glass is considered as a highly suitable packaging material for shelf-stable convenience foods as it is easy to sterilize and extremely hygienic (Kantema, 2007). Although not highly preferred towards quality association, *carton boxes* were still regarded as reliable in South Africa due to the fact that they are easy to use and dispose. *Plastic pouches* were also associated with hygienic products and being well sealed. Kantema (2007) also stated that they are also very convenient, open without difficulty and are light and easy to carry or store.

Category 2: Negative food packaging associations

The category of negative food packaging associations was addressed through the concepts of handling difficulties, difficulty to recycle, economic considerations, poor quality associations and ineffective packaging. Table 3 contains a summary of related concepts between the different types of packaging. The three identified concepts were **handling difficulties**, **poor quality association** and **environmental issues**.

Concerns regarding **handling difficulties** that participants associated with *glass packaging* were weight and breakability. The breakability of glass packaging was a concern for 28% of the participants. *Carton boxes* were regarded as an annoyance because they cannot be resealed. Therefore, participants are forced to use the entire product or use another container for the remaining contents. Similar complaints were raised about *plastic pouches* which were considered to be a “once-off” type of packaging where re-use is not possible.

Unlike a glass packaging, carton boxes and plastic pouches were associated with lower **quality food products**. Participants in the current study further perceived *carton boxes* to be untrustworthy for food packaging (“It does not look like it is going to preserve its contents properly”

and “With boxes I am always suspicious of them leaking”). They furthermore said that boxes look cheaper and not durable. *Plastic pouches* were thought to contain a less durable and cheaper product according to some participants, because the packaging is not expensive. This statement is in contrast with participants’ general packaging associations of plastic pouches and might be a result of pouches being a rather new type of food packaging material as indicated by Gustaffson *et al.* (2006). In accordance with the negative quality associations, in the current study 92.7% of respondents who participated in a study in West India believed that packaging material could have an unfavourable effect on the performance quality of food products (Peters-Teixeira and Badrie, 2005). This emphasises the importance of participants’ perceptions regarding quality associations of packaging that needed to be considered when designing product packaging, as negative associations might lead participants to a negative food product perception.

Table 3 Negative food packaging associations as part of participants’ comprehension of food packaging

Negative associations	TYPE OF PACKAGING		
	GLASS	CARTON BOXES	PLASTIC POUCHES
Handling difficulties	Easily breakable and safety hazard if it breaks; lid is difficult to open; heavy to handle.	Not resealable	Cannot be kept in packaging after opening; re-use is not possible; once-off type packaging.
Poor quality association		Does not convey a strong impression; not durable & untrustworthy; looks cheaper.	Not expensive because packaging is not strong; will contain a less durable product.
Environmental issues	Difficult to recycle		Difficult to recycle

Approximately 24% of participants raised their concerns about **environmental issues**, as glass and plastic pouches are difficult to recycle. Some participants in the current study indicated that the public awareness regarding packaging disposal should be addressed, and others felt it is an environmental risk that needs more attention. Dittke, a specialist in integrated resource and waste management in South Africa, suggested that packaging design should move beyond the basic considerations of protection, communication and convenience to add environmental intelligence; reused or remanufactured to perform a compostable or edible function. Hereby, a better product design and choice of material might change all packaging into food for another system instead of cumbersome waste (Van Breda, 2007). Fuller (2005) expressed that packaging is a major

growing environmental concern among consumers, and in a study done by Prendergast and Pitt (1996), no less than 70% of respondents agreed with this statement. These negative packaging interpretations might once again lead to poor product perceptions and thus a decrease in product sales.

CONCLUSION

From this study it is evident that participants' perceptions regarding food packaging are shaped through an information processing system with visual attributes of product packaging as the input into the system. This information input as communicated through the packaging is subsequently the start of perceptual formation. Firstly, this study aimed to explore the perceptions of consumers regarding food packaging. Results indicated that participants mainly perceived food packaging based on its functional and physical attributes. It was also evident that packaging needs to serve a purpose and must aid the consumer in using the product properly. The importance of packaging in the choice of the products consumers purchase became clear as all participants had definite aspects regarding packaging they considered important in their choice of product.

The second objective of the study was to explore the way in which a group of South African consumers form a perception of food product packaging through the perceptual process. Perceptions are formed through a three step perceptual process as part of the information processing system. When consumers are exposed to the packaged product in the retail environment, the process starts. Thereafter, the food packaging must capture the attention of the passing consumer. Results of this study showed aspects of packaging regarded as important in gaining consumers' attention in the retail environment. In this regard, information attributes of packaging played a critical role, as participants considered certain information as important to either their health or in assisting with their choice of product. It was also clear that appearance attributes played a key role in attracting the attention of participants.

Participants interpret the visual stimuli communicated to them through the packaging when the final step of the perceptual process, namely comprehension, is completed. The data indicated that participants associate food products with specific types of packaging and have certain quality expectations with regards to certain packagings. Negative associations with packaging mostly entailed poor quality associations with certain types of packaging, especially with carton boxes, as well as some concerns about the environment because of all the wastage of packaging. Another

negative association is that some types of packaging can only be used once which creates a problem if all the contents are not used. Manufacturers should take this into account as it might aid them in creating packaging regarded as suitable for certain products. It should be noted though that previous experience is also a major factor influencing product choice.

Due to the exploratory nature of the study, it should be emphasised that conclusions drawn from the results cannot be applied to the larger consumer population of South Africa. However, the results obtained from the current study provides information which might assist food retailers and food packaging designers in understanding the type of perceptions that consumers might have regarding food packaging. It is recommended that food retailers and packaging designers could conduct such research on their own products to gain a better understanding of consumers' perceptions regarding their products. Furthermore, the study indicates which product attributes are stimuli that participants regarded as most important in forming positive perceptions regarding food packaging. These results could be applied in a larger study of quantitative nature. The obtained results could lead to more positive consumer shopping experiences and consumer satisfaction if applied to food packaging.

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CHAPTER 4

CONCLUDING DISCUSSION

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4.1 INTRODUCTION

This chapter contains the main findings of the qualitative study conducted about consumers' perceptions regarding food packaging. The concluding results obtained are discussed together with possible implications for the food industry and consumers, and certain recommendations for further research. Consumers' general perceptions regarding food product packaging and the way perceptions are formed through the perceptual process are the two objectives included in this discussion.

4.2 CONCLUSION

4.2.1 Consumers' general perceptions regarding food packaging

The research showed that participants have certain perceptions regarding food packaging which can be divided into two main categories. Functional packaging attributes entailed that participants wanted packaging to serve a purpose and protect the food product. While a considerable amount of money is spent on food packaging, it should simultaneously aim to be effective and add to the value of the product it contains. Furthermore, packaging recycling was perceived as a definite concern by participants in South Africa where waste recycling definitely needs more consumer awareness. Participants suggested that manufacturers should attempt to use recyclable materials for food products in an attempt to protect the natural environment. Information on packaging was also a prominent concept of the first objective and participants indicated that they use the provided information on the packaging to make their choice between different products. These results can guide retailers and manufacturers alike to further investigate certain aspects mentioned in order to make their product packaging more functional.

Physical food packaging attributes were identified as the second category which indicated that participants regarded the product quality and the product packaging as one with regards to safety and hygiene. Thus, if product packaging is perceived as unsafe or of inferior quality, the product will also be perceived as unsafe or poor in quality. These results also included the direct product environment in which the product is sold or displayed. Participants wanted to purchase products in a clean and hygienic environment, free from repulsive odours. Packaging appearance also played a major role in participants' choice of product as they perceived the product and the packaging as

one. Thus, a neat and attractive appearance can create the image of a product of higher quality as opposed to a product with lower visual quality.

4.2.2 Participants' perceptions of food product packaging as shaped through the perceptual process

For the second objective two main themes were identified as the marketing function of food packaging as well as participants' food packaging associations. The first theme gives an overview of the factors participants regarded as important in gaining their attention as the second step in the perceptual process. Category 1 identified for the first theme was information attributes which indicate specific information that participants perceived as important on product packaging. Another prominent concept participants considered important in gaining their attention was content identification. Participants highlighted that glass bottles and plastic pouches should not be entirely covered with a label as they prefer to evaluate the product inside themselves with regard to appearance and quality. Participants were satisfied with a trustworthy picture or visual representation with regards to carton box packagings. However, the amount of product visibility should be determined by the visual representability of the products. Another important concept was identified as product contents. Participants wanted the product contents to be displayed at all times as they believe the given information may protect them especially, with regards to allergens. Appearance attributes were the second theme identified as gaining their attention within the second step of the perceptual process, with the most prominent concepts being appealing shape and attractive colour. An extraordinary shape was identified as a product attribute that would draw participants' attention when they have to choose between similar products. Colour was a very important role player in the choices participants make between different products. It draws their attention and is also useful in identifying certain flavours where applicable.

The third step of the perceptual process entailed participants' comprehension of food packaging. Participants' food packaging associations as the second theme, showed two categories of which general food packaging associations indicated that participants related specific food products with specific packagings. Glass bottles were associated with general preserved goods and plastic pouches with expensive products such as olives and seeds. This information can lead manufacturers to further investigate the type of packaging material they choose for certain food products, as it might influence the way consumers perceive their food product.

Food product characteristics were the second concept identified with the prominent sub-concepts of long-term storage possible and quality association. Glass bottles, plastic pouches and carton boxes were regarded as types of packaging in which products can be kept for a long time. However, glass was perceived as a quality type packaging. Plastic pouches were regarded as hygienic and properly sealed, and even though carton boxes were not associated with high quality, they remain a popular choice of packaging in South Africa.

Concerns raised regarding negative food packaging associations as the second category include handling difficulties, poor quality association and environmental concerns. Participants are cautious when choosing glass packaging as it is heavy and easy to break, but also perceived it as a higher quality type packaging. Both boxes and plastic pouches were perceived as a “once-off” type of packaging because most of the time it cannot be resealed as well as being packaging of inferior quality. Environmental concerns were raised again as participants comprehend the mentioned packaging as difficult to recycle because of the misinformed public. Packaging designers should pay attention to participants’ negative interpretations of food packaging because resolving these issues could lead to more positive perceptions of food packaging and product sales.

4.3 IMPLICATIONS AND RECOMMENDATIONS

This study was conducted in an isolated town with a small number of participants. Although data saturation was reached before data gathering was completed, the sample size was too small to generalise to the entire South African consumer population. However, insight was gained into which product attributes participants pay attention to as these are the inputs into the perceptual process. A quantitative study with a larger population size is recommended which can provide product manufacturers and retailers with insight into which product attributes are more important, and this which might lead to more positive consumer perceptions regarding food products.

Furthermore, the study focused on visual attributes of packaging and not other organoleptic cues such as taste and smell due to restrictions in the store environment. The results, however, indicated the importance of product attributes in the perceptions of participants. The conclusion can be made that visual attributes play a significant role in gaining attention and communicating with the consumer within the retail environment and that these attributes act as stimuli that are processed through the perceptual process to result in perceptions.

4.4 FUTURE RESEARCH

The focus of the study was on participants' perceptions and the way in which perceptions are formed through the perceptual process. The decision-making process was thus not taken into consideration. In further research an attempt can be made to link the perceptual process with consumer decision making. Another aspect that may also lead to a deeper understanding of consumer perceptions is the use of perceptual mapping together with a qualitative research approach.

The study design was focused on qualitative research to gain an in-depth view of a small sample of participants' perceptions. A quantitative approach, together with the qualitative data, is recommended to gain information that can be generalised to a larger population of South African consumers. Another type of sampling is also recommended in future qualitative research due to the restrictions of snowball sampling as it is advised only in exploratory research. Furthermore, although some researchers included involvement, memory and expectations as part of the information processing system, these were not discussed in this research study, since the researcher focused on the three main steps in the perceptual process and the direct input to result in the consumer perception as an output. Therefore, future research should include aspects such as memory, expectations and involvement to gain a more thorough understanding of all the factors influencing consumers' perceptions of food packaging.

APPENDIX A:

LETTER OF CONSENT

LETTER OF CONSENT

Consumer Science
Tel (018) 299 2483
Fax (018) 299 2470



TITLE OF RESEARCH PROJECT:

AN EXPLORATORY INVESTIGATION OF CONSUMERS' PERCEPTIONS AND PERCEPTUAL PROCESS REGARDING FOOD PACKAGING

Dear Mr/Ms

Date:/..../2006

AIM AND NATURE OF THE STUDY

The aim of this research project is to obtain consumers' perceptions regarding food product packaging in grocery stores. Interviews will be employed to address this aim and to obtain the information required to fulfill the objectives of this project.

RESEARCH PROCEDURE

- You will be asked to participate in a semi-structured interview regarding food product packaging.
- The interview can take place in any environment where there will be no interruptions.
- The interview will be guided by a facilitator and will offer you the opportunity to voice your opinion about food product packaging.
- No answer or response would be regarded as wrong.
- No preparation is required for the discussion.

NOTICE OF RECORDINGS

It is brought to your attention that the discussions will be recorded on tape, to ensure that valuable information is preserved and analyzed within the appropriate context. After completion of the interviews, these recordings will be transcribed to text. You have the right to examine the transcribed text at any given time during the course and completion of the research project.

DECLARATION OF CONFIDENTIALITY

Your opinion is considered strictly confidential and only members of the research team will have access to the information. No data published in dissertations or journals will contain any particulars that could identify you as a participant in this study. You are therefore assured of your anonymity.

POSSIBLE BENEFITS OF THE STUDY

The information gained from these interviews can prove to be particularly useful in making recommendations regarding packaging to improve the use of packaging in such a way as to benefit the consumer. Furthermore, it can also add value to consumers' purchases by shedding light on the needs and expectations consumers have regarding food product packaging.

WITHDRAWAL OF PARTICIPATION

It is brought to your attention that your participation is voluntary and that you have the right to withdraw from the interview at any given time should you wish to do so.

INFORMATION

Should you require additional information, please do not hesitate to contact Karin Venter, (Masters' degree student) at 084 761 1159 or the project leader, Dr. M van der Merwe at 018 2992476.

DECLARATION OF CONSENT

I, the undersigned _____

(full names and ID nr.) read through the information provided concerning the research project and declare that I fully understand the content thereof. I was given the opportunity (if so preferred) to discuss any aspects of the project with the researchers and hereby voluntarily agree to participate in the project. I hereby give my consent to participate in the above mentioned project.

I would hereby like to exempt the University or any employee or any student of the University from any liability which I might incur during this project. I furthermore waive my right to institute any claims whatsoever against the University which may arise during the running of the project or the conduct of any person involved in the project, except for claims arising from the negligent conduct of the University or its employees or students.

I received a signed copy of the consent form.

Signature of participant: _____

Signed at _____ on _____

APPENDIX B:

SEMI-STRUCTURED INTERVIEW GUIDE AND PROJECTIVE TECHNIQUE

SEMI-STRUCTURED INTERVIEW GUIDE

You are going to be exposed to different types of packaging. It is important to focus on the packaging and not necessarily the traditional product associated with it. You must take into consideration that it must contain food. No answers will be regarded as wrong. Please refer to the packaging number when commenting.

OBJECTIVE 1

- 1) *To gain insight into the **perceptions** consumers have regarding food product packaging in general.*

Method:

Semi-structured interviews, participants are not exposed to any packaging (unprompted awareness).

Question:

What are your thoughts regarding food packaging in general off the top of your head?

OBJECTIVE 2

- 2) *To determine the way in which consumers form a perception of food product packaging through the **perceptual process**.*
 - *Exposure*
 - *Attention*
 - *Comprehension*

Method:

Projective technique through exposing the participants to packaging types.

Question:

- 1- What would you change about this packaging in order to attract your attention?
- 2- What do you understand about the product inside this type of packaging?

APPENDIX C:

DATA REFLECTING PACKAGING ATTRIBUTES PERCEIVED BY PARTICIPANTS

(OBJECTIVE 1)

TABLE 1: THEME –Packaging attributes perceived by participants.

Category	Concept	Sub concept	Participants' statements	
Functional attributes	Resealable packaging		It must be able to reseal like a ziplock.	
			With any product I want to be able to seal it without the risk that it might perish or spill. I like the milk cartons which makes it easy to pour and to close it again. It must be easy to open. One mustn't have too much trouble with it.	
	Easy opening method		It is not as practical as it is overseas.	
			When a product has too much packaging, it is not functional and not effective. I don't want this big jar which only contains a few cherries. We don't even get halfway through the box and then it's spoiled. It must move in the direction of being more functional.	
	Practical packaging requirement	Preparation aid		It mustn't just look pretty, it must help with the preparation of the product and to keep it fresh.
				If the product must be kept cool, the packaging must keep it cool.
		Storage aid		I like the meat packaging that has the absorbent piece underneath the meat which prevents a bloody mess.
				To me it is just a basic container for food.
		Container for food		Food packaging is only there to protect the food and has the printed expiry date to prevent the food from spoiling.
				The packaging must support the contents no matter what it is.
Protect contents			Because of the amount of outlets, food needs to be packaged to move it effectively.	
		Products must be taken good care off, including when they are transported.		
Protect contents		I feel that packaging is an important part of the product.		
		I pay attention to whether the packaging is fit to contain the product. It must be a strong material. Not something that tears easily or damages the product.		
Effective distribution	Effective distribution		I think the people here are trying to use material that can be recycled.	
			Food packaging is responsible for a lot of pollution so they must start using minimum packaging that is not recyclable.	
Part of the product	Part of the product		It must contribute to the protection of the environment.	
			I like the food products that are packaged in the special tin containers because you can use them again.	
	Packaging recycling			
	Reusability of packaging			

Category	Concept	Sub concept	Participants' statements
Functional attributes	Information on packaging	<ul style="list-style-type: none"> Distinguishable packaging Distinguishable packaging Descriptive information Descriptive information Serving suggestions Product ingredients Nutritional information Preparation instructions 	<p>There must be information on the packaging.</p> <p>Sometimes when you can't decide between different products, I base my decision on the information provided on the packaging.</p> <p>There mustn't be too much information on the packaging.</p> <p>I think every brand has its own specific packaging and you immediately recognise it because of the blue colour.</p> <p>I think packaging enables you to recognise the product.</p> <p>If I take a packaging from the shelf I want to see what I can expect from the product rather quickly and without reading through a page.</p> <p>The packaging must be descriptive of the contents.</p> <p>I smile about the serving suggestions, because sometimes it is a whole can of tuna just turned over on a plate.</p> <p>One wants to know what the components and ingredients of the product are.</p> <p>If all the products are unknown I would like to be able to compare the nutrition contents of the products.</p> <p>I like it when the preparation instructions are on the packaging.</p>
Physical attributes	Simple packaging		<p>It must be plain and simple. It mustn't have too much stuff on it.</p> <p>...and there mustn't be unnecessary pictures.</p>
	Hygienic packaging		<p>It must keep the food safe and clean, it mustn't get contaminated with bacteria.</p> <p>To me as final consumer, I want to be sure that the original packaging was done hygienically.</p> <p>If they are not neatly packaged it will surely influence me because then it isn't hygienic.</p> <p>To me hygiene is very important.</p> <p>In a lot of butcheries there is this smell and the meat is open and not behind a glass panel.</p> <p>It must be clean if for instance I want to buy a piece of meat.</p> <p>In some butcheries the meat isn't even packaged. It is just behind a glass panel and it is open on the other side. All kinds of flies, bacteria and other stuff can get in there.</p>

Category	Concept	Sub concept	Participants' statements
Physical attributes	Packaging of quality		<p>I think packaging makes the difference between one's idea of a quality product and something of lesser quality.</p> <p>You can clearly indicate the quality of the product through the packaging.</p> <p>It is "no name" brands because the packaging is so plain, therefore I expect to pay less.</p> <p>It has antique illustrations on which gives it an antique feeling and gives the impression of something more durable.</p>
	Attractive on-shelf presentation	<p>Perception forming</p> <p>Appetizing</p> <p>Appetizing</p> <p>Neat appearance</p> <p>Neat appearance</p> <p>Neat appearance</p>	<p>The packaging forms some part of your perception of the product.</p> <p>They must present it in such a way that it looks tasty and attractive.</p> <p>Depending on the product, it must not look like it has been standing on the shelf for 40 years.</p> <p>To me the packaging is not as important as how it is presented.</p> <p>Packaging puts a product in another class.</p> <p>One automatically accepts that if a lot of effort was put into the outside, the contents are also taken good care of.</p>
		Graphically attractive	Modern style fonts are pretty.
		Graphically attractive	It must look fancy.
		Graphically attractive	I would rather buy bright things than dull stuff.
		Packaging design match content	Depending on the product, the packaging must match.
		Packaging design match content	The packaging cannot be something that cannot contain the product. Every product has its own demands.
		Packaging design match content	Firstly, the shape of the product determines the type of packaging.

**DATA REFLECTING THE MARKETING FUNCTIONS OF FOOD PACKAGING WHEN
EXPOSED TO GLASS BOTTLES**

(OBJECTIVE 2 – ATTENTION)

TABLE 2: THEME - Marketing functions of packaging when exposed to glass bottles

Category	Concept	Sub concept	Participants' statements	
Information attributes	Product name		I want to see the name of the product and whether it is imported or not.	
	Product manufacturer		Especially with transparent packaging, the name becomes increasingly important. The label must have the logo.	
	Product brand		I want to see the person who made it's name and contact details, because I think it is homemade. I want to know from what food culture it is derived from the name. I'd like to see where the product is from because the taste differs for different manufacturers.	
	Content identification			If there are three glass bottles with a certain product, the brandname will influence my decision. So I want to see it.
		Prefer to see contents		The bottle mustn't be entirely covered, I still want to see the product inside.
		Prefer to see contents Prefer to see contents Prefer to see contents Visibility depends on product		The label must be small because you want to see the freshness and texture of the product inside. You can see inside exactly what you're buying with glass packaging. Some products don't look too good, they must be covered completely. Others have nice shapes and must only have a small label.
	Product amount		I want the weight of the product on the label. I want to know the amount in grams or milliliter.	
	Important product date		Without too much trouble, I want to see the expiry date clearly indicated. Especially with bottles which have a limited shelf-life. It needs a "best before" and an indication of how long you can keep it in the bottle.	
	Nutrition value		The nutrition values must be indicated on the backside of the packaging. I am a man and not necessarily as concerned with the amount of kilojoules or fat contents. I would like to see the nutritional values, especially the amount of sugar. If it contains a large amount thereof, it must be indicated as high in sugar.	
	Product contents	Allergen specifications Product additives		For the sake of people with allergies, the contents must be specified. I'd like to see the colourants and flavourants.
		Basic ingredients indicated		The label must not have too much information, it must just explain exactly what the product is.
		Basic ingredients indicated Basic ingredients indicated		If you can't see the product properly, the label must indicate what is inside. I'd like to see a list of the ingredients.

Category	Concept	Sub concept	Participants' statements
Information attributes	Serving suggestions		Many times a recipe will convince me. Especially ideas with what foods the contents can be served. Sometimes they have suggestions on how to use the product and it is interesting to try. I'd like tips on how to care for the product after opening.
	Product handling		It doesn't need anything more because the bottle is already pretty. I like it's shape.
Visual attributes	Appealing shape		The shape doesn't bother me that much. It must be round. A square bottle is more expensive to produce and not that strong. A different shape would be nice. It must stand out from the rest, not conventional. They can even go back to the real old shapes. I like the extra detail, when it isn't just round. If it has a nice shape I will look twice.
	Attractive colour	Matching colours Must match product Must match product	Your choice of colour is important. Wrong colours like using orange and purple together will not appeal to me. If the lid had a picture on or a colour matching the product inside. The packaging makes me think of fruit so I'd say the label must be red, yellow or green. That will draw my attention.
	Attention drawing product contents		The contents will draw my attention and then I will see that I can re-use the bottle. It is usually the contents that draws ones attention. They must take more care to make the product more appealing and let the design match than spending time to make a beautiful label that covers the whole bottle and you can't see the contents. It must be a stylish label. Not just something saying Mamas Kitchchen.
	Stylish packaging label		The logo on the label must have been designed with care. It shows that the product inside also has a good background.
	Pictures on packaging	Not needed	In case one can see through the packaging, a picture isn't that important.
		Not needed	It doesn't need a photo, because you can see the product inside.
		Representative of contents	If it is apricot jam, I'd like to see apricots on the label. Then you know exactly what you're buying.
		Representative of contents	There has to be a pretty picture on the label. Maybe the type of fruit inside or a tree. Or even a picture of the place it's from.
		Representative of contents	If it is a berry jam, there must be berries on the label. When my children were smaller that enabled them to shop with me. Especially with so many uneducated people in the country. They must keep it simple.

APPENDIX E:

**DATA REFLECTING CONSUMERS' FOOD PACKAGING ASSOCIATIONS REGARDING
GLASS BOTTLES.**

(OBJECTIVE 2 – COMPREHENSION)

TABLE 3: THEME - Consumers' food packaging associations of glass bottles during product exposure

Category	Concept	Sub concept	Participants' statements
General food packaging association	Specific foods' packaging	Special jams	They sell special jams in this packaging.
		Beetroot	I think beetroot will come in a jar.
		Jams & fruit mix	It is jams and the ingredients for a fruit cake.
		Mayonnaise	Usually mayonnaise or other sauces.
		Preserved fruit or vegetables	A preserved type of product like fruit or vegetables.
		Pickled products	Pickled products or preserved products like fruit, cocktail onions or olives.
		Long storage possible	It will be a product which can be kept for a while because it is inside a durable packaging.
		Long storage possible	It must be something that can last a long time because glass is an expensive type of packaging.
		Long storage possible	It can be kept for a long time and used over and again. You can just put the lid on and put it away again.
		Easily perishable	It is products with expiry dates. Because once you've opened it, it will start to perish.
Easily perishable	It is usually to keep something fresh that can perish easily.		
Easily perishable	You get the idea of a sensitive product because it is packaged very hygienically.		
Sentimental association	It looks handmade. It is special and not something you will throw away.		
Sentimental association	It has a certain sentiment to it. Like grandmas preserved fruit...		
Sentimental association	It has got an old world charm.		
Quality association	It seems like a product in glass was handled more hygienically, which makes it of better quality, durable and a bit more expensive than the alternative in a can.		
Quality association	Glass has got a certain appeal, it represents durability and gives the idea that a lot of effort have gone in the preparation. Not mass produced.		
Quality association	The glass makes a product more classy and sophisticated.		
Air tight product	I like glass because you know it's a clean packaging and safe to use.		
Air tight product	The contents are fresh and you can trust it because it is sterilised and packaged air-tight.		
Air tight product	Usually the lids have a protection button so you can be sure it is sealed air tight.		
Presentable product	It is something you have to keep closed to last as long as possible and it can be a liquid.		
Presentable product	It is something that is pretty to display.		
Presentable product	It always looks pretty and gives the idea of something special.		

Category	Concept	Sub concept	Participants' statements
General food packaging association	Food product characteristics	Presentable product	I understand that because the product is visible, it may have additional colourants to be more presentable.
		Product re-use possible	You can close it again once opened, so you have the guarantee that the food stays fresh and clean.
		Product re-use possible	What I like most is that the product can be served in the bottle and afterwards you can just tighten the lid again. You never have to throw the product into another container.
		Product re-use possible	It is multi-purpose because I can either fill it with jam or bath soap as a gift for someone.
		Product contents visible	I like the fact that it is transparent and that you can see what's inside and how much is inside.
		Product contents visible	Because glass usually contains something that can be kept for a long time, it is nice to be able to see what the product looks like inside to evaluate whether it's still good.
		Sealability	If it falls over the contents won't spill.
Negative food packaging association	Handling difficulties	Easy breakable	You have to be careful that it doesn't break on the way home and must pack it in a safe place so that it doesn't roll around.
		Easy breakable	One has to be careful with glass because it can break easily.
		Difficult to open	I struggle to get the lid of most of the time.
		Safety hazard when broken	If it falls and breaks, there is glass all over the place which makes it a safety hazard.
		Safety hazard when broken	It is a very clumsy type of packaging. It can break easily and you have to be very careful when handling.
		Heavy packaging	I don't prefer glass, it is heavy.
Difficult to recycle	Economical considerations	Difficult to recycle	It is difficult to get rid of once finished with the product.
		Expensive packaging	Glass is more difficult to recycle than plastic. I will feel safer knowing they melted the plastic before refilling it again. With glass it just gets washed.... I would prefer that glass be recycled and that the public must be more informed about how to recycle glass if they don't want to keep it to use for something else. I have difficulty throwing glass away. It always feels like you have to keep it.
		Expensive packaging	Glass is usually more expensive. Glass is always more expensive than a can. Even though I buy the can, it is only because of the price. It is more expensive because it is still handpacked, it is more difficult to move and the packaging is more expensive than any other.

APPENDIX F:

**DATA REFLECTING THE MARKETING FUNCTIONS OF FOOD PACKAGING WHEN
EXPOSED TO CARTON BOXES**

(OBJECTIVE 2 – ATTENTION)

TABLE 4: THEME – Marketing functions of packaging when exposed to carton boxes

Category	Concept	Sub concept	Participants' statements
Information attributes	Product name		I would like an indicative name written in big letters. You immediately want to know what it is. They must describe the contents clearly through printing a colourful name on the packaging.
	Product manufacturer		Also a pretty logo which is visible. Then you have an indication of the quality. The regular stuff like a post address or telephone number for customer care.
	Product brand		I want to see the brand. I want a product name, logo and brand. Then you would be more aware of the quality of the product. Since I don't like boxes, I will consider it if it has a brandname I know.
	Content identification	Prefer pictures	It needs a visual representation of the product inside. Not just a picture of something associated with the product like a sunflower when the product is sunflower seeds. What if it is oil extract..?
		Prefer pictures	I like pictures that tells a story. Like some teas have a harbour on the packaging which tells me a story. It's the story that will draw my attention.
		Prefer pictures	I want to see what the product inside looks like. There must be a trustworthy picture or photo. It also helps to notice the product and to identify it.
		Prefers to see contents	If they have a peeping whole covered with plastic. You could then see the colour of the product and what it looks like and whether it's good quality.
		Product description	The way they are going to describe the product within. I want pictures, I want to know what's inside.
		Product description	An accurate description of the contents.
		Label information considered in purchase	I prefer certain types of products and therefore I read the labels carefully.
		Prefers not to see actual product	The boxes usually look neater because you cannot see the product inside. Sometimes the product is disgusting to see, like with couscous. Then I don't want to see it.
		Product amount	The weight must always be clearly indicated. I want the weight in grams, always!
		Important product dates	How long it can stay packaged like it is and when it was packaged. If I see packaging I always look at the expiry date.
	Nutrition values	The dietary values, calory count and energy levels are also useful. I want to see the percentage sugar, protein and composition percentage.	
	Product contents	Information will draw my attention and I will feel safer buying a product with information than one without, especially with regards to preservatives.	

Category	Concept	Sub concept	Participants' statements
Information attributes	Product contents	Allergen specifications	Ingredients that can be harmful to some people like gluten and dairy products must be indicated.
		Basic ingredients indicated	What it consist of, not necessarily all the vitamins and chemical stuff, but the basics like flour and chocolate...
		Product additives	I want to see the ingredients and preservatives of the contents.
		Product additives	I want to see the ingredients and colourants like tartrazine.
	Serving suggestion	Relevant product information	It will have to advertise something about the product because if the packaging doesn't give information on the product, I won't buy it.
		Relevant product information	It is an advertisement so it must indicate what is inside. These days they try to put all the benefits on the box which isn't always that good, because less is more.
			I would like suggestions on how to use the product and serving suggestions.
Visual attributes	Preparation method		A serving suggestion is always a good idea. Preferably not one recipe but a few suggestions for what the product can be used for.
			It must be clearly indicated in what I can use the product and exactly how.
	Appealing shape		I want to see the method of preparation.
			It will be much more interesting if it had other corners and turns. The box is very conventional and plain.
			There is nothing wrong with its shape.
	Attractive colour		It is very plain, the square box, and it doesn't seem to be in proportion like it usually is.
		Must match product	There is specific colours I associate with certain products. All coke flavours are red. So I will search for red if I want cola.
		Bright colours	Bright colours like reds, yellows, oranges and bright green like lime green. Not beige or dull colours.
	Pictures on packaging	Primary colours	It needs colour, depending on the product a bright colour like red, blue or yellow will draw attention.
		Makes product stand out	It is about what is on the outside of the box; the picture or catch-phrase that will make one better than another.
Packaging design	Must look delicious	It must look delicious.	
	Patterns or stripes	Maybe patterns or stripes or something written in big letters.	
	Minimalistic lines	I don't like a circus on the box. I like plain lines, it must be minimalistic.	
Size of packaging	Must indicate a good product	The design must indicate that care has been taken with the packaging which also means you will get a good product.	
	Must indicate a good product	The design must fit the product and indicate the quality thereof and that they have put an effort into the product.	
	Match product size	The box must be more or less the same size as the product inside. It mustn't take up unnecessary space.	

APPENDIX G:

**DATA REFLECTING CONSUMERS' FOOD PACKAGING ASSOCIATIONS REGARDING
CARTON BOXES.**

(OBJECTIVE 2 – COMPREHENSION)

TABLE 5: THEME - Consumers' food packaging associations regarding carton boxes.

Category	Concept	Sub concept	Participants' statements
General food packaging association	Specific foods' packaging	Biscuits and cereal associations	This is how most foods are packaged that have to stay intact like biscuits and cereal.
		Coffee or cereal association	Perhaps coffee or cereal inside another bag.
		Rusks association	It is something that musn't break or can crumble like rusks.
		Teabags association	It is loose packaged stuff like teabags.
		Doughnut association	Maybe a doughnut.
		Noodles or rice association	Maybe something like noodles or rice.
		Maize or pasta association	It looks like a maize container or pasta. Even spices.
		Powders or soups association	Usually you'll find powders like bisto, maizena, fast puddings, custard powder or quick soups in this packaging.
		Sweets association	I think it will be sweets in a plastic bag to protect them.
		Non-food association	Food product characteristics
Medicine association	It seems like it contains a glass bottle, like cough medicine or even pills.		
Too small for foods	I don't associate food products with this type of packaging, it is too small.		
Plasticware	Plastic ware and even toys and hardware. Not food.		
Not easily damaged	I don't think it contains an easily damaged product because the box isn't all that firm. It doesn't have a lot of packaging or shelf expectations. It will be just fine on the shelf.		
Not easily damaged	I would imagine tea and non-breakables to be purchased in this.		
Long storage possible	The only food I would put in something like that is sweets or a non-perishable product.		
Long storage possible	It probably means it can't spoil easily. You can keep it for some time.		
Long storage possible	Something that can be stored for a while and doesn't need to be refrigerated.		
Easily perishable	This is not for coffee for it will fall out and not fresh produce, it will not stay fresh.		
Presentable packaging	Quality association	Easily perishable	It has to be something that is not going to be in here for a long time.
		Easily perishable	It is something you're going to use fast and doesn't need protection.
		Convenience-product	It is easy to make. It is a convenience product and quick to prepare.
		Quality association	I think it is durable because products in boxes usually keep well, it is a solid packaging.
		Quality association	It is a reliable packaging in SA. It works great for harder products.
		Quality association	It isolates the product well and is also a buffer for eggs. It can take a punch.
		Presentable packaging	It is professional. The manufacturers knew what they were doing.
		Presentable packaging	It says that care has been taken to present the contents properly.

Category	Concept	Sub concept	Participants' statements
General food packaging association	Food product characteristics	Manageable packaging	It is a more manageable medium to me as consumer, but it won't change my idea of the product.
		Manageable packaging Easy to open and close	It is a very manageable packaging. I like the boxes with a line on the side you can pull to open without breaking a nail and child friendly. My 7 year old son must be able to help himself with the packaging without help and be able to manage the box.
		Easy to open and close	I like the boxes you can tear open or a perforated hole you can just push to open and it must be able to close again.
		Product re-use possible	It is usually quite easy to open and close again.
		Product re-use possible	It is something you don't use all at once and can be put back in the cupboard. You can almost serve whatever is in here, just like it is directly from the packaging.
		Easy to recycle	You can burn the box or recycle it. If it was a bag you wouldn't be able to do much with it.
		Easy to recycle	It is quite practical because if you're done it can be easily thrown away or squashed to take up little space.
		Easy to recycle	It is easily disposed of, because you just take out the product inside and throw away the box.
		Easy storage	It is nice to put in your cupboard because it is square. For the same product, I would choose a box instead of a bag because it looks neater when packed away.
		Easy storage	Seems like it's going to pack away nicely. Especially in kitchens with little space, weird shapes make it more difficult and the symmetrical boxes can be stacked on top of each other.
		Easy storage	The edges make it ideal to fit into small spaces and you can stack a couple on top of each other.
		Purchase implications	I think it's the standard type of packaging and most cost effective method because it's cheap to produce.
		Purchase implications	It will be a reasonable price and won't effect your product price that much.
		Purchase implications	I think it will be a cheaper product in this type of packaging.

Category	Concept	Sub concept	Participants' statements
Negative food packaging associations	Poor quality association	Not appealing	I don't know what one will buy in this type of packaging, it doesn't really appeal to me.
		Not appealing	It can be effective but it doesn't convey a strong impression.
		Less durable	It doesn't seem like very durable packaging, it feels cheaper. The softer products will get damaged, it's about perception.
		Less durable	If it comes into contact with something moist, it will fall apart. I don't like boxes a lot.
		Untrustworthy product	I am not going to have a lot of trust in the product inside. It doesn't look good on the inside so I suspect the contents will be of poor quality too.
		Untrustworthy product	Sometimes with boxes the picture and the contents differs significantly.
		Untrustworthy product	The box works, but one has to be able to see what you are buying.
		Untrustworthy packaging	It doesn't seem safe and healthy for food packaging. I mean it will turn old quickly.
		Untrustworthy packaging	It doesn't look like it's going to protect or preserve its contents properly.
		Untrustworthy packaging	With boxes I am always suspicious of them leaking and I will first turn them to all sides to see where they are leaking the sugar or flour...
Handling difficulties	Ineffective packaging	Not resealable	Once it is open you can't close it again properly without the risk of something getting in or it falling over. So I would prefer glass or plastic.
		Double packaging necessary	It irritates me when you get salads in boxes. They still have a bag and in the end the box is a waste.
		Double packaging necessary	The box is just to keep a number of loose items together, but the product must still be in another container inside.
		Double packaging necessary	I suspect there will another type of packaging inside which will lend extra protection and the product will be properly sealed like a foil or plastic bag.

APPENDIX H:

**DATA REFLECTING THE MARKETING FUNCTIONS OF FOOD PACKAGING WHEN
EXPOSED TO PLASTIC POUCHES**

(OBJECTIVE 2 – ATTENTION)

TABLE 6: THEME – Marketing functions of packaging when exposed to plastic pouches.

Category	Concept	Sub concept	Participants' statements
Information attributes	Product name		<p>It needs a label to say what's its name is and to say what it is so you can know exactly what you are buying.</p> <p>It must clearly indicate what's inside, a description of the contents and why I must buy it.</p> <p>I want to know what type of product it is, like stuffed olives or green olives... And whether it's organic or some other specifics.</p> <p>If it says "Preserved asparagus from Argentina" I will definitely wonder what it tastes like.</p> <p>I want to know who made it.</p>
	Product manufacturer		<p>I want to know what brand it is and where it comes from.</p>
	Product brand		<p>A well-known brandname or interesting place of origin.</p> <p>If the product and brand I want comes in this packaging, I would take it no matter how nice a similar product looks in another type of packaging. To me, it's about the brand.</p>
	Content identification	<p>Prefer pictures</p> <p>Prefer pictures</p> <p>Prefer pictures</p> <p>No picture needed</p> <p>Prefer to see contents</p> <p>Prefer to see contents</p> <p>Prefer to see contents</p>	<p>I would like to see what the product looks like on the packaging.</p> <p>The contents must be clearly shown with a picture on the packaging.</p> <p>Not a lot of written information is needed, pictures are also worth a couple of words.</p> <p>It is unnecessary to put a picture of the product on the label since it is transparent.</p> <p>Because it is already transparent and I want to see what's inside there must just be a small label.</p> <p>I think if it's transparent and you can see the product inside, it will already draw my attention.</p> <p>The product within will advertise itself because the packaging is transparent. So I won't need much more information.</p>
	Product amount		<p>I want to see how much it weight or the volume.</p> <p>I want to see the amounts in grams and millileter. They must also clearly distinguish between the total packaging mass and the mass of the product especially if you want to buy a certain amount of the particular product.</p>
	Important product date		<p>The expiry date and date of sale are handy and they also protect the store in case of any queries.</p> <p>I want to see a best before date... Expiry dates are very important.</p> <p>The date must be there although I only read it with products like milk. For other products I rely on the producers and store staff to take the product off the shelf once it has expired.</p>

Category	Concept	Sub concept	Participants' statements
Information attributes	Nutritional values		On the reverse side I want to see the nutrition values which get lost a lot of times with this type of packaging because I like to compare. I notice if it is missing. I would like extra information like the nutrition values of fat contents, amount of carbohydrates ect.
	Product contents	Indicate preservatives Health concerns	I would like a label with the basic information like preservatives, especially with the spices you'll typically get in here. The ingredients of the contents especially with the growing concern for one's health. I would like to see suggestions for what the product can be served with.
	Serving suggestions		I'd like one or two serving suggestions where the product can be used. I want to see the method of preparation.
	Product handling		Instructions on how to care for the product after opening. I want to see how the product must be stored. Can it stand on the shelf or must it be refrigerated. What to do after opening. They should indicate how the product should be cared for after opening.
	Appealing shape		They could give the bag another funky shape to draw attention. Something other than the conventional square bag.
Visual attributes	Attractive colour	Must match product Bright colours Primary colours Coloured plastic	The colour will be determined by the packaging contents and the brand's distinctive colours. I'd like bright colours like blue, orange and greens. Red, yellow or a combination of red-yellow. Even green. But not pastel colours. The colour of the plastic can change perhaps, something tinted. You will still be able to see the product. It must tell me about the product and it must be stylishly designed, not kitch. Something about the product must make me look twice. You can evaluate the products immediately.
	Packaging design	Quality association Quality association	

APPENDIX I:

DATA REFLECTING CONSUMERS' FOOD PACKAGING ASSOCIATIONS REGARDING
PLASTIC POUCHES.

(OBJECTIVE 2 – COMPREHENSION)

TABLE 7: THEME - Consumers' food packaging associations regarding plastic pouches.

Category	Concept	Sub concept	Participants' statements	
General food packaging association	Specific foods' packaging	Olives	I think it would contain more expensive types of products like olives.	
		Spices	Something like spices can be packaged like this.	
		Colddrink	I'd say it is a coldrink type of product.	
		Soup	It can be dried or fresh products like soup, spices, dried mushrooms.	
		Biltong or dry wors	A product that will perish over a long period like biltong and dried sausage.	
		Dried seeds	Dried seeds can be packaged in here.	
		Sauces	I would say some kind of sauce or other liquid. Something that has to be sealed tightly.	
		Flour	Flour type product.	
		Food product characteristics	Not easily damaged	I don't think the product needs much protection.
			Not easily damaged	The product is not fragile, it won't get harmed if the bag gets squashed a bit in the trolley.
	Not easily damaged		It must be a softer product which can handle a bit of wear and tear. Not something like cereal which will turn into a powder if packaged like this.	
	Easily damaged		I think it could be easily damaged if packaged just like this. It is usually in a box.	
	Long storage possible		I think it is long life products. Because the product is visible it must not be able to perish quickly.	
	Long storage possible		I suspect it does not need to be refrigerated and that is nice.	
	Long storage possible		It could also be a fresh product which will stay well for a long time because it is sealed so well.	
		Easily perishable	It is a product that needs to be refrigerated.	
		Easily perishable	It is not something that will stand on the shelf a long time and not something you will use all the time on the table.	
Easily perishable		It is something that can perish easily. It must be properly sealed and kept in the refrigerator once opened.		
Quality association		It looks like a product suitable to send to school for a snack because it's nicely sealed and strong.		
Quality association		I like it because it means the contents are hygienically sealed.		
Presentable product		The product will visually draw your attention. The visibility thereof will benefit the manufacturer.		
Presentable product		The product must advertise itself and not the packaging.		
Presentable product	The product within will draw your attention because the packaging is transparent.			

Category	Concept	Sub concept	Participants' statements
General food packaging association	Food product characteristics	<p>Convenience product</p> <p>Convenience product</p> <p>Convenience product</p> <p>Sealability</p> <p>Sealability</p> <p>Manageable packaging</p> <p>Manageable packaging</p> <p>Easy to recycle</p> <p>Easy to recycle</p> <p>Easy storage</p> <p>Easy storage</p> <p>Easy storage</p> <p>Purchase implications</p> <p>Purchase implications</p> <p>Purchase implications</p> <p>Product content visible</p> <p>Product content visible</p> <p>Product content visible</p> <p>Air tight product</p> <p>Air tight product</p> <p>Refill type product</p> <p>Refill type product</p>	<p>I think it will be convenient for camping because it is light, transparent and plastic.</p> <p>It is easy to use. You just open it and pour... Like a sauce.</p> <p>You can take it somewhere like for a picnic because it is sealed well. I'd like it a lot if it was resealable.</p> <p>I would appreciate a resealable bag to optimise the product life especially with re-use. It feels strong and manageable like it won't just tear when handled. Even my child can handle this.</p> <p>It looks easy to handle.</p> <p>The plastic bag is easy to throw away because it's small.</p> <p>Once you've taken the food out the bag can be easily disposed off because it's small. Because of the foot it can stand and won't fall over all the time.</p> <p>This packaging is stored easily and not that flimsy.</p> <p>This one is nice in the sense that it is small and easy to pack away and doesn't take up too much space.</p> <p>This is very cost effective.</p> <p>They probably package products in plastic for economic reasons.</p> <p>If you have options between different types of packaging, I would choose the bag because I think it will be cheaper and more cost effective.</p> <p>You can see exactly what is going on inside. Whether it's the right size, colour and flavour without worrying.</p> <p>You can see the product. This way it's more effective because then you only need a name on the packaging and the product shows itself, it doesn't need further advertising.</p> <p>If it contains a fresh product I want to be able to judge its appearance, but other products I don't want to see.</p> <p>I would say it has to be sealed otherwise it will go bad before you open it. I get the perception of freshness.</p> <p>Because it is sealed airtight I know no one else could have handled the product and it's hygienic and fresh when I buy it.</p> <p>Plastic bags to me are a temporary packaging. Once you get home you have to put it in another container. Like refills.</p> <p>It's probably a refill.</p>

Category	Concept	Sub concept	Participants' statements
Negative food packaging association	Handling difficulties	<p>Cannot be kept in packaging</p> <p>Product re-use not possible</p> <p>Product re-use not possible</p> <p>Product re-use not possible</p> <p>Poor information</p> <p>Opening preference</p>	<p>Once you've opened it, it needs to be cared for further like putting it in the fridge.</p> <p>Once you've opened it you have to use everything because it cannot be kept once it's opened or needs to be put in another container.</p> <p>It seems like the product will dehydrate or spill if left open. It must stay sealed until I need it.</p> <p>It is not something that can be used over a long period of time. It's a once-off.</p> <p>I don't know if it is microwaveable... If it is they must indicate it otherwise I won't because plastic releases estrogen when heated.</p> <p>If I can cut it open with a pair of scissors I'm happy. I don't like sticking my fingers in the packaging to open it.</p> <p>I don't know whether it is environmentally friendly.</p> <p>It is a mess if you must throw it away because it pollutes the environment and it isn't bio-degradable.</p> <p>It is not an expensive product because it doesn't have a very strong packaging. It's for short-term use.</p> <p>I think it will be a less durable product.</p>
	Difficult to recycle		
	Poor quality association	<p>Not expensive</p> <p>Less durable</p>	

APPENDIX J:

**BRITISH FOOD JOURNAL
- MANUSCRIPT GUIDE -**

BRITISH FOOD JOURNAL

AUTHOR GUIDELINES

Submissions should be sent to:

The Editor

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Head, Food Research and Consultancy Unit

University of Wales Institute,

Cardiff

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Three copies of the manuscript should be submitted in double line spacing with wide margins. All authors should be shown and author's details must be printed on a separate sheet and the author should not be identified anywhere else in the article.

As a guide, articles should be between **3,000** and **5,000** words in length. A title of not more than eight words should be provided. A brief autobiographical note should be supplied including full name, affiliation, e-mail address and full international contact details.

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The aim of the journal is to provide a vehicle for the dissemination of food-related research of the highest academic quality to an international multi-disciplinary audience.

Editorial scope

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2. Authors should take into account the international readership of the journal when drafting papers.
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Thus, where research of a highly technical nature is reported, the text should be written in a form which is clear to non-specialists in the area of enquiry. However, if required for clarification,

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Manuscript requirements

1. As a guide, articles should be between 3000 and 5000 words in **length**.
2. A **title** of not more than eight words should be provided.
3. A brief **autobiographical note** should be supplied including:
 - o Full name
 - o Affiliation

- E-mail address
- Full international contact details
- Brief professional biography.

NB This information should be provided on a separate sheet and authors should not be identified anywhere else in the article.

4. Authors must supply a **structured abstract** set out under 4-6 sub-headings (see our "How to... write an abstract" guide for practical help and guidance):
- Purpose (mandatory)
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 - Research limitations/implications (if applicable)
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Maximum is 250 words in total. In addition provide up to six **keywords** which encapsulate the principal topics of the paper and categorize your paper under one of these **classifications**:

- Research paper
 - Viewpoint
 - Technical paper
 - Conceptual paper
 - Case study
 - Literature review
 - General review.
5. **Headings** must be short, with a clear indication of the distinction between the hierarchy of headings. The preferred format is for headings to be presented in bold format, with consecutive numbering.
6. **Notes** or **Endnotes** should be used only if absolutely necessary and must be identified in the text by consecutive numbers, enclosed in square brackets and listed at the end of the article.
7. All **Figures** (charts, diagrams and line drawings) and **Plates** (photographic images) should be submitted in both electronic form and as hard copy originals. They should be of clear quality, in black and white and numbered consecutively with arabic numerals.

Figures created in **MS Word, MS PowerPoint, MS Excel, Illustrator** and **Freehand**

should be saved in their native formats.

Electronic figures created in other applications should be copied from the origination software and pasted into a blank MS Word document or saved and imported into a MS Word document by choosing "Insert" from the menu bar, "Picture" from the drop-down menu and selecting "From File..." to select the graphic to be imported.

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- o *For books:* Surname, Initials (year), *Title of Book*, Publisher, Place of publication.
e.g. Harrow, R. (2005), *No Place to Hide*, Simon & Schuster, New York, NY.

- *For book chapters:* Surname, Initials (year), "Chapter title", Editor's Surname, Initials, *Title of Book*, Publisher, Place of publication, pages.
e.g. Calabrese, F.A. (2005), "The early pathways: theory to practice – a continuum", in Stankosky, M. (Ed.), *Creating the Discipline of Knowledge Management*, Elsevier, New York, NY, pp. 15-20.
- *For journals:* Surname, Initials (year), "Title of article", *Journal Name*, volume, number, pages.
e.g. Capizzi, M.T. and Ferguson, R. (2005), "Loyalty trends for the twenty-first century", *Journal of Consumer Marketing*, Vol. 22 No. 2, pp. 72-80.
- *For working papers:* Surname, Initials (year), "Title of article", working paper [number if available], Institution or organization, Place of organization, date.
e.g. Mozier, P. (2003), "How published academic research can inform policy decisions: the case of mandatory rotation of audit appointments", working paper, Leeds University Business School, University of Leeds, Leeds, 28 March.
- *For encyclopedia entries (with no author or editor):* *Title of Encyclopedia* (year) "Title of entry", volume, edition, *Title of Encyclopedia*, Publisher, Place of publication, pages.
e.g. *Encyclopaedia Britannica* (1926) "Psychology of culture contact", Vol. 1, 13th ed., Encyclopaedia Britannica, London and New York, NY, pp. 765-71.
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