

**EMOTIVE REACTIONS TO THE CONSUMER EDUCATION PROJECT OF THE  
SOUTH AFRICAN DAIRY INDUSTRY**

**by**

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Submitted in accordance with the requirements for  
the degree of

**MASTER OF COMMERCE**

in the subject

**BUSINESS MANAGEMENT**

At the

**UNIVERSITY OF SOUTH AFRICA**

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SEPTEMBER 2013

## **ABSTRACT**

Historically, consumer perceptions towards dairy products have been measured using a rational cognitive approach. However, recent consumer insights suggest that emotions play a dominant role in consumer decision making. The South African dairy industry therefore identified a need to determine emotive reactions to educational messages in addition to the reasons underpinning dairy consumption. Using a mixed method research approach, reactions from 81 South African dairy consumers were obtained, using three different, but interrelated measuring instruments. Descriptive statistics, hierarchical ladder maps and correlation analyses were used to examine emotive and cognitive consumer reaction to a number of generic dairy messages and products. The findings indicate that certain communication messages appear to have a stronger impact on consumers due to specific emotions that these messages elicit. Personal values underpinning dairy consumption decisions were also identified within the context of emotive reactions to the selected dairy products.

### **Key words:**

Consumer behaviour, consumer decision making, dairy marketing, measuring emotions, consumer education.

## ACKNOWLEDGEMENTS

This accomplishment has been the fruit of a long journey, during which I have incurred debts to a wide range of people who made my dream a reality. Among those outstanding people I had the privilege of being associated with, I would like to express my gratitude to:

- Professor Pierre Joubert, for his consistent provision of invaluable guidance, advice, feedback, recommendations and encouragement throughout my work with this dissertation. He has surpassed every expectation I had of how helpful a supervisor can be. Prof, I thank you for your availability
- Mrs Annemarie Davis, for invaluable long-term mentorship, ongoing support that provided focus. Mrs Davis, thank you for being a remarkable role model
- Professor Deon Tustin, who first encouraged me to register for the Master's Degree
- The South African Milk Producers' Organisation (SAMPRO) and its CEO Mr A. Kraamwinkel, for giving me the opportunity to complete my Master's Degree
- Prof Michael Cant, Mr Ricardo Machado, Dr Leona Ungerer for their constructive comments in all the stages of the dissertation
- The College of Economic and Management Sciences, especially the Bureau of Market Research for providing a quality academic environment and support. Ms Jacolize Poalses, Ms Babie Postma, Ms Margie Nowak, this achievement is your reward
- The Unisa Centre for Business Management for financial assistance
- The various participants without whose contributions, participation and support the present research project would have not been a success
- Uncle Richmond Tiemoko and his wife Doris Tiemoko for being there whenever I needed them
- My wife to be Ange-Marie Gisele for her love and unconditional support.
- My family, especially my mother who passed away few months after I left my country
- Anyone else involved in this research who has not been named.

**“This dissertation is a thanksgiving to The Almighty God”**

**DEDICATION**

To Niamien Kpli

## **DECLARATION**

Student Number: 44936109

I declare that Emotive Reactions to the Consumer Education Project of the South African Dairy industry is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

**SIGNATURE**

**DATE**

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# **CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE RESEARCH**

## **1.1 INTRODUCTION**

The South African economy is the largest economy on the African continent, with a per capita gross domestic product (GDP) that is more than four times the African average. South Africa's agriculture sector is dualistic, where a developed commercial farming sector co-exists with a large number of subsistence (communal) farms.

The dairy industry is the fifth largest agricultural industry in South Africa, representing 5.6 percent of the gross value of all agricultural production. In terms of value, the dairy market generated R17.2 billion in 2009 and as at December 2011, this figure reached R23 billion (Nyanzunda, 2012). The contribution of milk production in South Africa is approximately 0.5% to the world milk production. The industry comprises of a number of different economic activities and there are significant differences between farming methods and processing of dairy products. These activities involve the production and marketing of raw milk, pasteurized milk and cream, fermented milk, long-life milk and cream, yoghurt, cheese and its by-product whey, milk powder, sweetened and unsweetened concentrated milk, butter and butter oil (Department of Agriculture, Forestry & Fisheries, 2011).

The South African dairy supply chain has undergone a noticeable metamorphosis since deregulation of the industry started in 1996 with the Marketing of Agricultural Products Act (No 47 of 1996). This change has been driven by various factors, including political, social and economic reforms within the dairy industry, the agricultural sector, the economy and within the country as a whole (Bandama, 2011:13). It was one of the first industries to start with deregulation from a single channel marketing system to a free-market system. In the controlled marketing environment, the different industry boards collected information regarding production, input costs, statistics, etc. The boards were furthermore responsible for removing surplus production from the system. With the shift

to a more competitive free-market system, this information became scarce and farmers found it difficult to measure their economic and financial performance against other farmers (Maree, 2007:12).

According to Loubser (2012:3), the key characteristics of the “deregulated” situation are:

- No government measures regarding issues such as volume of milk production, surplus production, prices, export and other subsidies.
- The industry is shaped by market forces and each market player should act in accordance with the new South African Agricultural Competition Act No.47 of 1996.
- There are defined ways of interaction between market players, which should meet the requirements of the Competition Act No.47 of 1996.

As a result of these measures, the number of commercial milk producers in South Africa has been declining while the number of subsistence producers has increased dramatically. However, this supply channel will require high level control measures on hygiene and the producer will have to comply with the required standards. There has also been a remarkable move of dairy operations from inland to coastal areas (National Department of Agriculture, Forestry & Fisheries, 2011).

Much production, in real terms, has decreased, which provides impetus for educational programmes. Doyle (2000:29) remarked that the educational programmes conducted by the former Dairy Board proved successful. Following the demise of the Board in 1993, a national consumer education programme for the dairy industry no longer exists. Traditionally, farmers take responsibility for educational promotion and brand advertising.

According to the National Agricultural and Marketing Council (2001: 49) the decline in total consumption echoes the marginal decline in per capita consumption. In 2001, awareness of the nutritional benefits of milk and dairy products was at a low level. A

number of factors, including the educational campaign coming to an end have contributed to a sharp decline in per capita consumption of dairy products.

The metamorphosis undergone by the industry, especially deregulation and its consequences call for marketing initiatives towards consumers. These marketing initiatives can lead to the increase in the demand for dairy products. The main sections of this chapter are depicted in Figure 1.1.

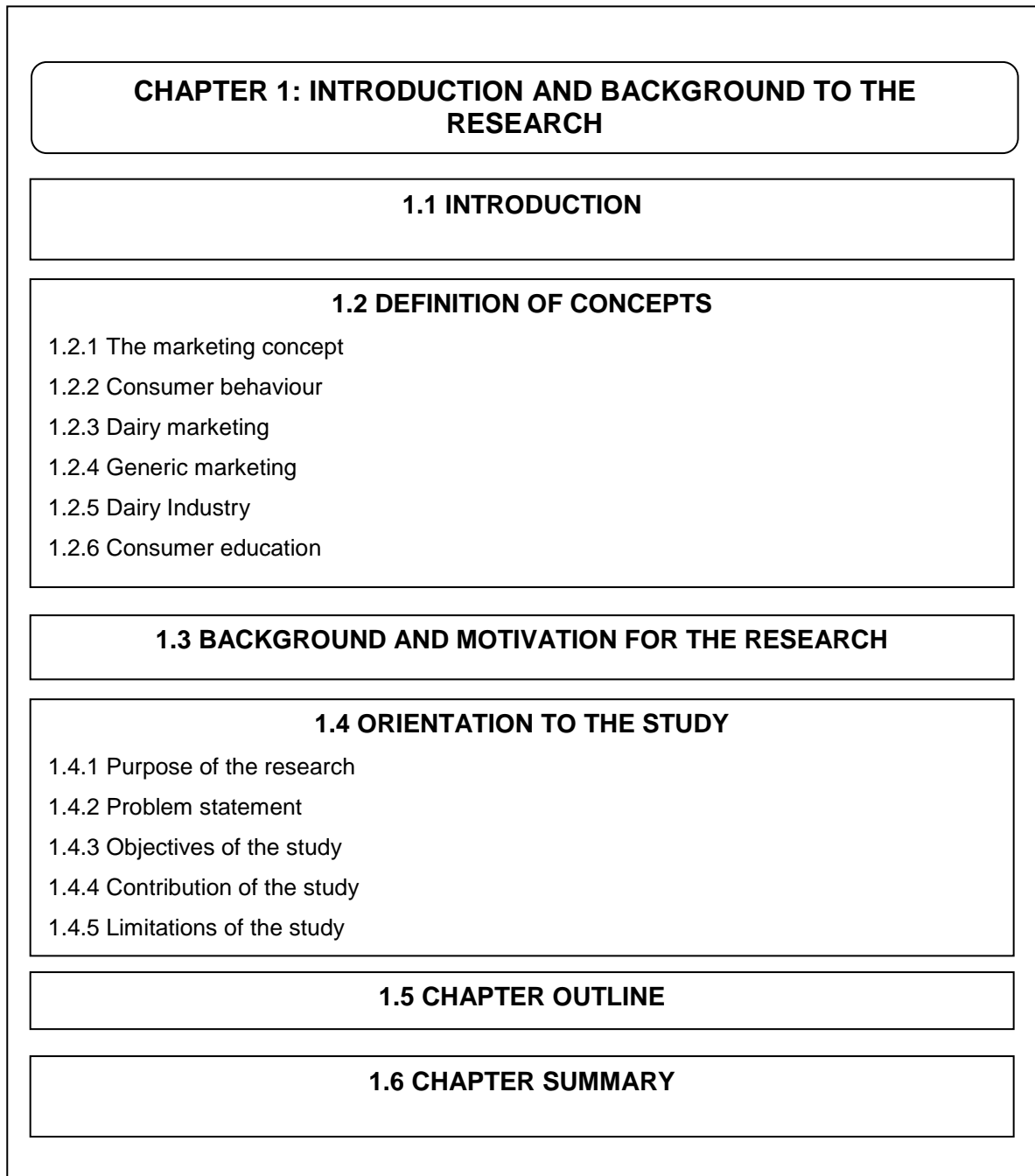


Figure 1.1: Layout of Chapter 1

## **1.2 DEFINITION OF CONCEPTS**

To fully understand the topic and the chapters that follow, the following concepts need to be defined. These include the marketing concept, consumer behaviour, milk marketing, generic marketing, the dairy industry and consumer education.

### **1.2.1 The marketing concept**

Marketing is a philosophy, an attitude, a perspective and a management orientation that stresses customer satisfaction. Marketing is also a set of activities used to implement this philosophy (Lamb, Hair, McDaniel, Boshoff, Terblanche, Elliot & Klopper 2010:5).

The American Marketing Association's definition (1994) encompasses both perspectives as it views marketing as the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, clients, partners and society at large.

### **1.2.2 Consumer behaviour**

Consumer behaviour is the study of how individuals make decisions to spend their available resources such as time, money and effort on consumption-related items. Put simply, it refers to the study of individuals, groups, or organisations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy their needs and the impacts that these processes have on the consumer and society (Schiffman & Kanuk, 2010).

### **1.2.3 Dairy marketing**

In the context of this study, the term “dairy” has been considered in its broadest meaning to include not only milk, but also yoghurt, cheese and maas. Dairy marketing therefore, involves the marketing of all the above-mentioned products.

### **1.2.4 Generic marketing**

Generic marketing is undertaken by an industry or group in a cooperative effort to promote benefits that relate to the entire sector or category rather than to specific brands (NAMC report, 2001).

### **1.2.5 Dairy industry**

An industry is a group of organisations having similar production processes or those that provide similar services. It can also be viewed as a number of business units grouped together by a common factor, or their investment in the same product range.

For the purpose of this study, the dairy industry is defined as all suppliers and processors who pack, distribute or market dairy products in South Africa. The milk industry, however, includes the dairy processing companies as well as the milk producers or farmers.

### **1.2.6 Consumer education**

The United States Department of Education (1980) defines consumer education as the process whereby consumers:

- Develop skills to make informed decisions in the purchase of goods and services in the light of personal values, maximum utilisation of resources, available alternatives, ecological considerations and changing economic conditions
- Become knowledgeable about the law, their rights and methods of recourse, in order to effectively and self-confidently participate in the market place and take appropriate action to seek consumer redress.
- Develop an understanding of the citizen role in the economic, social and government systems and to influence those systems to make them responsive to consumer needs.

For the purpose of this research, consumer education is defined as all marketing initiatives or investment undertaken by the South African dairy industry in order to understand dairy consumers in terms of their values, expectations, motivations, and how to influence their consumption-related attitudes.

The fundamental concepts of consumer behaviour, milk marketing, generic marketing, dairy industry and consumer education have been defined. The following section describes the background and motivation for the current study.

### **1.3 BACKGROUND AND MOTIVATION FOR THE RESEARCH**

Consumer behaviour is the study of the ways in which individuals make decisions to spend their available resources such as time, money and effort on consumption-related items. Put simply, it refers to the study of individuals, groups, or organisations and the processes they use to select, secure, use, and dispose of products, services, experiences, or ideas to satisfy their needs and the impacts that these processes have on the consumer and society (Schiffman & Kanuk, 2010). Consumer needs are commonly regarded as fundamental to all modern marketing. Consequently, needs form the essence of the marketing concept. Schiffman and Kanuk (1997) emphasise this point by stating that an organisation's survival, profitability and growth in a highly

competitive environment depends on its ability to identify and satisfy unfulfilled needs better and sooner than competitors. The crux, according to Brink and Berndt (2008) is that customer needs and expectations are constantly considered and incorporated in a organisation's marketing efforts.

The primary focus for studying consumer behaviour as part of a marketing curriculum is to understand why and how consumers make their purchasing decisions. The benefits of studying consumer behaviour have significant bearing on marketing and public relations decisions. Studies focusing on consumer behaviours yield important information and insight into what consumers are thinking. With these insights, marketing and public relations organisations may enhance their particular marketing campaigns to successfully connect with consumers.

According to Brink and Berndt (2008:6), at least one business rule from the past remains constant: the customer reigns supreme. Successful companies never lose sight of their customers' needs, and are mindful to keep track of these needs as they evolve and change. If marketers understand consumer behaviour, they are able to predict how consumers are likely to react to various informational and environmental cues, and are able to shape their marketing strategies accordingly.

It has been found that consumers react emotionally to dairy products such as milk, cheese, yoghurt and maas. According to O'Leary (2012) an age dynamic is apparent in dairy consumption with deepening of emotional bonds and greater appreciation of different dairy products occurring during mid-childhood. It is hypothesised that dairy can have a continuing emotional resonance for children relating to their growth, fuel and strength. It is also hypothesised that older people can "learn" to incorporate dairy products in a positive way, both functionally and emotionally.

The South African dairy industry, through its industry body, Milk SA commissioned consumer research towards the end of 2007 to inform its mandate to educate the South African public in the advantages and importance of consuming dairy. The research



focused on feelings, emotions, motivation, and consumption patterns. It investigated the usage and awareness as well as the health and nutritional benefits of dairy products. The findings revealed a number of misconceptions namely, amongst others, that full fat dairy products were fattening and relatively expensive. Based on the mandate from Milk SA and the findings of the research, a general communication strategy aiming at informing South African consumers of the benefits and advantages of dairy products was developed. This strategy also aimed to address general misconceptions regarding the health and nutritional benefits and advantages of dairy products.

A media strategy informed by the objectives of the communication strategy was finalised. This strategy delivers a multi-channel plan (mainly print and television) that includes more efficient, cost effective and relevant media channels for delivery of the campaign. In addition, several creative concepts were developed to meet the requirements of the communication and media strategy. These include communicating seven messages, derived from, among others, consumer research insights (SAMPRO, 2007) relating to the health and nutritional advantages of dairy. The seven messages will be discussed in more detail in Chapter 5. Section 1.4 deals with the orientation of the research.

## **1.4 ORIENTATION TO THE STUDY**

This section covers the orientation of the study and specifies the purpose of the research, the problem statement, the objectives, the contribution as well as the limitations of the current research.

### **1.4.1 Purpose of the research**

The overall aim of the study is to provide strategic communication insights into consumer reactions to four dairy products (milk, cheese, yoghurt and maas) and the

envisaged messages aiming to inform South African consumers of the health and nutritional benefits of milk and other dairy products, and to eliminate misperceptions in respect of the issue.

These insights will posit the role that emotions play in consumer behaviour towards educational messages and the four dairy products.

#### **1.4.2 Problem statement**

In its endeavour to assist in the generic marketing of dairy, Milk SA initiated the Consumer Education Project (CEP) during 2007 resulting in various communication efforts to inform and educate the South African consumer on the health benefits of consuming dairy on a daily basis. The South African Dairy Industry Body has since commissioned various research endeavours to establish whether these efforts are likely to bring about behaviour change in terms of food choice based on the target markets' reaction to such communication campaigns.

As part of this campaign a number of television advertisements have been developed. The initial "Rediscover Dairy" TV campaign included two advertisements that were televised in 2009. Five additional television advertisements were developed and flighted as part of two campaigns during the following two years, namely the "Seagull, Chicken and Tortoise" advertisement campaign launched during 2010 and the "Dutch Settler" and "Zulu" advertisement campaign during 2011. Several creative concepts have been developed to deliver on the requirements of the communication and media strategy. These include communicating seven messages relating to the health and nutritional benefits of dairy.

The problem is that the efficiency of the campaigns and the role of feeling-related actions remain unknown. This research aims to address the impact and relevance of

these messages to target consumers. In addition, the research investigated consumer feelings relating to the four dairy products under investigation.

### **1.4.3 Objectives of the study**

Research conducted by O'Leary (2012), an Irish company, found that the consumer's emotional relationship is more connected to individual products as opposed to "dairy" as whole and that consumers regard milk as the foundation of dairy in terms of emotion. In addition, that research found that the emotional connection to dairy is very complex and that there are many contributing factors. O'Leary's findings call for more research. Therefore, marketers' connection with their consumers on an emotional level to drive the demand for dairy will be investigated in this research.

The research addresses four main aims:

Firstly, to determine consumer attitudes and feeling-related reactions associated with each of the following seven communication messages:

- Dairy products enhance bone strength
- Dairy products enhance muscle strength
- Dairy products complement growth
- Dairy products contain less fat than you think
- Dairy products enhance weight loss
- Dairy products are rich in nutrients
- 3-A-Day

Secondly, to determine consumer attitudes and feeling-related reactions associated with milk, yoghurt, cheese and maas. More specifically the research will determine:

- The emotions that each of the products elicits, and

- The underlying reasons for the emotions that each of the products elicits.

Thirdly, to determine the cognitive determinants of consumer reactions to the four dairy products.

Finally, to investigate whether general mood, as operationalised in the Pleasure-Arousal-Dominance (PAD) theory has an impact on consumer attitudes, and more specifically on consumer reaction towards the products.

In addition to these specific aims, the outcome of the study proposes to reveal potential stumbling blocks for receiving the communication messages and provide strategic information to improve future briefs for envisioned marketing actions.

#### **1.4.4 Contribution of the study**

The contributions of this study are three fold:

Firstly, it offers the opportunity to evaluate past consumer education advertising campaigns and proposes to explain the reasons for success or failure of such campaigns, based on the data collected from consumers assuming that consumers' attitudes, motivations and goals are constantly evolving.

Secondly, it provides insight into the advertising strategy of the South African dairy industry. The applied instruments provide dairy consumers' reactions to both the messages and the products. The underlying reasons for buying these specific products are investigated, making it possible to have a better understanding of dairy consumer attitudes and motivation. This will help redesign the content of future advertising messages.

Finally, the study involved three dairy producing countries that have a rich experience in generic dairy advertising campaigns. This knowledge provides a sound theoretical foundation for more refined segmentation, targeting, positioning strategies in planning and launching new products. A better understanding of consumer motivation in terms of attributes, consequences and values will help dairy processors, especially Nestle, Parmalat and Clover SA in their capitalisation on generic marketing as a fundamental option for increasing industry demand.

The findings of the current study have practical relevance by pointing out key success factors for dairy advertisements in addition to having theoretical relevance by providing additional insight where related values are integrated in the overall evaluation.

#### **1.4.5 Limitations of the research**

In interpreting the findings, the results offer strong support for the validity of the measuring instruments that have been applied. However, a number of limitations in the current study should be highlighted.

Firstly, the use of seven communication messages and four dairy products would, for statistical rigour purposes necessitate a larger respondent base. Generalisability is therefore limited in the current study. Future research will benefit from using a larger sample and other segmentation criteria that have not been used in this research.

Secondly, future research will benefit from examining consumption-related attitudes that could be associated with other dairy products apart from milk, cheese, yoghurt and maas.

Finally, the current study is limited in scope due to the research being conducted in the Gauteng Province only. Future research should aim to try and replicate our findings in different settings.

The structure of the research is provided in the chapter outline in section 1.5.

## **1.5 CHAPTER OUTLINE**

The research report comprises six chapters. In this section a brief summary of the content of each chapter is provided. The structure is as follows:

### **Chapter 1: Introduction and background to the study**

Chapter 1 starts with the definition of some basic concepts for a better understanding of the topic under investigation. Thereafter, it provides the background and motivation for the research as well as the orientation of the research.

### **Chapter 2: Consumer behaviour**

Chapter 2 forms part of the literature review and addresses the concept of consumer behaviour in the context of this research. Therefore, the origins of consumer behaviour and its relationships with consumer decision making are addressed. Selected models of consumer decision making are also presented leading to the model laying the theoretical foundation of the research. Further, the role of advertising, and how emotions find place in advertising are covered.

### **Chapter 3: Research context**

Chapter 3 provides a review of the literature to describe three major dairy producing countries, namely Australia, the United Kingdom and the United States with regard to the generic marketing undertaken in their respective dairy industries. These campaigns will serve as strategic indicators for the South African dairy industry. It also provides a description of the South African dairy industry. The chapter also covers the contribution

of the dairy industry, the structure of the industry, the nature of competition within the industry and the production areas.

#### **Chapter 4: Research design and methodology**

This chapter provides the research methodology used for the collection and analysis of the data for this research. It provides an overview of the research design, research methods used and finally the statistical techniques used for the analysis of the data. More specifically, it deals with the research approach, the sampling plan design, the research instruments as well as the data collection procedures.

#### **Chapter 5: Data analysis and discussion**

Chapter 5 deals with the analysis and interpretation of the data collected by means of the questionnaire. It involves investigating consumer emotive reaction to the seven advertising messages and four dairy products.

#### **Chapter 6: Research findings, conclusion and recommendations**

This chapter presents the conclusions and recommendations together with a summary of the main findings of the investigation of the quantitative and qualitative measurement of emotive reactions to milk, cheese, yoghurt and maas as well as the advertising messages as it pertaining to these products.

### **1.6 CHAPTER SUMMARY**

The introductory chapter emphasised the importance of the agricultural sector in the South African economy. The dairy industry, as part of this economy has been deregulated and turned to a free market system. A definition of concepts was necessary for a better understanding of the topic under investigation. Thereafter the background

and orientation of the research were provided. The chapter concluded on the outline of the dissertation.

Chapter 2 will provide a review of the literature relating to consumer behaviour.



# **CHAPTER 2: CONSUMER BEHAVIOUR**

## **2.1 INTRODUCTION**

A literature search was undertaken to determine whether the concept of consumer behaviour had been the focus of any research in various industries. It was found that the decision making process and influences on the consumers have been extensively researched in the past. However, these influences did not relate to any drivers specific to the South African dairy consumers.

The initial rationale for undertaking this research is the intuitive belief in the existence of specific emotive and cognitive drivers as elements of the decision making process within dairy consumer behaviour. Furthermore, it is proposed that if the South African industry is to grow, research towards a clear understanding of dairy consumer behaviour is necessary. This will arguably help to aim for the right target customers and devise successful marketing strategies in order to offer their products and services.

The purpose of this chapter is to review the literature on consumer behaviour. Therefore, the background of consumer behaviour, decision-making models, the functions of advertising, emotions and their measurement in advertising will be explored. The structure of Chapter 2 as it is depicted in Figure 2.1.

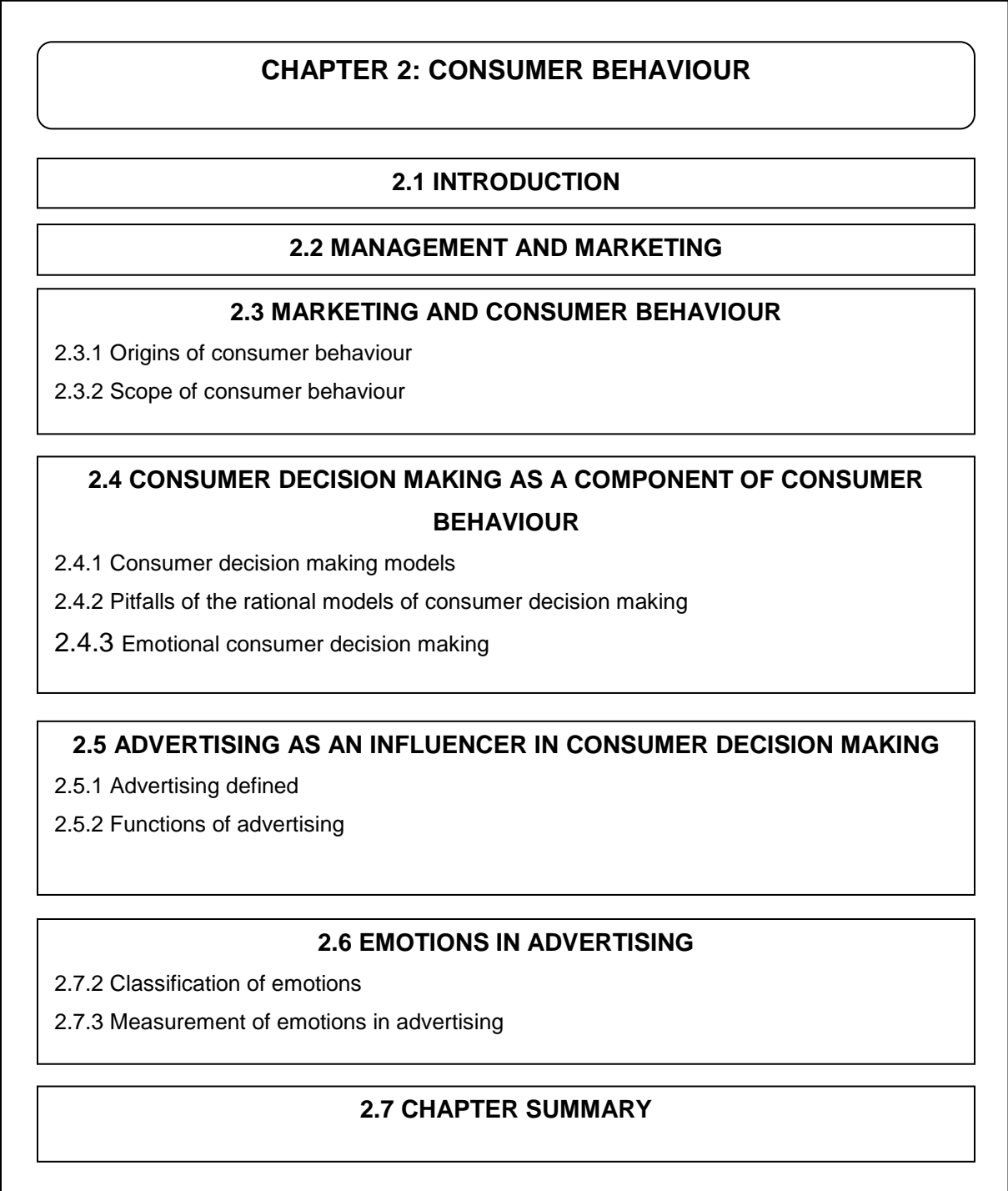


Figure 2.1: Layout of Chapter 2

## 2.2 MANAGEMENT AND MARKETING

As this research is positioned within the field of business management, it is necessary to define the concepts of management and marketing as a function of management.

Management is the process of co-ordinating work-related activities so that the people performing them complete these activities effectively and efficiently. In each management function, the specialised manager needs to apply all the management tasks of planning, organising, leading, motivating, and controlling (Kloppers, Steenkamp, De Beer, Nel, Holtzhausen, Smith, Nieuwenhuizen, Oosthuizen & Kiley 2011:56).

Management involves therefore five main business functions: operations, logistics, finance, human-resource management, and marketing. These different functions are usually performed by different managers who implement all the management tasks in relation to their departments (Kloppers et al, 2011:63).

Marketing has been given great attention due to its ability to contribute to any organisation's success, growth and profitability. Yet, many managers still think of marketing in terms of selling and promotion.

The development of marketing in the 21<sup>st</sup> century necessitates the reconsideration of marketing as a concept that goes far beyond the simple activities of selling and promotion. The definition of relationship marketing suggested by Brink and Berndt (2008:6) emphasises this idea. They state:

The objectives of relationship marketing are to identify and establish, maintain and enhance, and, when necessary, terminate relationships with customers and other stakeholders, at a profit so that the objectives of all parties are met.

As a business function of management, the essence of marketing is the development of exchanges in which businesses and customers voluntarily engage in transactions that are designed to benefit both of them.

The next section deals with the relationship between marketing and consumer behaviour.

## **2.3 MARKETING AND CONSUMER BEHAVIOUR**

Because a business should satisfy its consumers, its marketers need to know what the business's consumers need and want. They also need to know how their consumers make their decisions about buying and using products. In other words, marketers must investigate the factors that influence consumer behavior (Kloppers et al 2011:308). In this section, the origins of consumer behaviour and its scope are explored.

### **2.3.1 Origins of consumer behaviour**

The academic field of consumer behaviour has long been associated with the marketing discipline (Kernan, 1995). Consumer behaviour was a relatively new field of study in the mid-to-late 1960s. With no history or body of research of its own, the new discipline borrowed heavily from concepts developed in other disciplines, such as psychology, sociology, anthropology and economics (Schiffman & Kanuk, 2010).

There are a number of reasons why the study of consumer behaviour developed as a separate discipline. According to Schiffman and Kanuk (2010), marketers had long noted that consumers did not always act or react as marketing theory suggested they would. Consumer preferences constantly change and tend to be highly diversified. Even in industrial markets where needs for goods and services are more homogeneous than in consumer markets, buyers also exhibit diversified preferences and less predictable purchase behaviour.

As marketing researchers began to study the buying behaviour of consumers, they soon realised that, despite a sometimes “me too” approach to fads and fashions, many consumers rebelled at using the identical products everyone else used. Instead they preferred differentiated products that they felt reflected their own special needs, personalities and lifestyles (Schiffman & Kanuk, 1997: 9).

### **2.3.2 Scope of consumer behaviour**

The term consumer is often used to describe two different kinds of consuming entities: the personal consumer and organisational consumer.

- **The organisational consumer**

According to Schiffman and Kanuk (2010:23) the organisational consumer includes profit and not-for profit businesses, government agencies (local, state, and national) and institutions (e.g., schools, hospitals, prisons), all of which must buy products, equipments, and services in order to run their organisations. Due to the current research being focused on individual South African dairy consumers, the scope falls outside the scope of organisational consumer.

- **The personal consumer**

A personal consumer buys goods and services for his or her own use, for the use of the household, or as a gift for a friend. In each of these contexts, the goods are bought for final use by individuals, who are referred to as end users or ultimate consumers (Schiffman & Kanuk, 2010).

Schiffman and Kanuk (1997) assert that despite the importance of both categories of consumers, individuals and organisations, end-use consumption is perhaps the most

pervasive of all types of consumer behavior as it involves every individual, of every age and background, in role of either buyer, user, or both.

This research focuses on personal consumer due to it describing and explaining how South African consumers react to marketing efforts of the dairy industry and how that influences their purchasing behaviour.

In order to address this focus it is necessary to provide background on consumer decision making as it relates to consumer behaviour.

## **2.4 CONSUMER DECISION MAKING AS A COMPONENT OF CONSUMER BEHAVIOUR**

Understanding the drivers of purchase behaviour is a challenging task given the rapid rate of change, the plethora of influences on consumer purchase decision making, and an increasing number of models and options available to consumers. This section offers a definition of consumer decision making and explores some consumer decision making models.

Consumer decision-making refers to the behaviour patterns of consumers that precede, determine and follow on the decision process for the acquisition of need satisfying products, ideas or services (Du Plessis & Rousseau, 1991:11). Every day, consumers make numerous decisions concerning every aspect of daily lives. However, consumers generally make these decisions without stopping to think about how they make them feel and what is involved in the particular decision-making process itself (Schiffman & Kanuk, 1997:558).

The complexity inherent in understanding consumer behaviour has led to the construction of models of the buying process as discussed in section 2.4.1.

### **2.4.1 Consumer decision making models**

According to Foxall, Goldsmith and Brown (1998:25) these models indicate the stages through which the consumer passes from the time he or she first becomes aware of a product or service to the time when a product is purchased, a brand selected, and the consumer evaluates the success of his purchase and decides whether to buy that particular product and/or brand again.

Consumer decision-making models are widely used in consumer behaviour research and study areas to structure theory and research. Engel, Blackwell and Miniard (1995:143) state that “a model is nothing more than a replica of the phenomena it is designed to present. It specifies the building blocks (variables) and the ways in which they are interrelated. Models are also described as flow charts of behavioural processes (Du Plessis, Rousseau & Blem, 1991:18).

Advantages offered by models include the possibility to grasp visually what happens as variables and circumstances change. Models also provide conceptual frames of reference that logically indicate the interrelationship of variables for research purposes. They provide the possibility to understand different consumer decision processes and marketing strategies and finally, models play an important part in the establishment of theory (Engel, Blackwell & Miniard, 1995:143; Du Plessis et al, 1991:18). Walters (1978:43) even proclaimed consumer decision-making models to “specify exact cause and effect that relate to consumer behaviour”.

Philosophers like Plato, René Descartes, Adam Smith, and the trio of Engel, Kollat and Blackwell might seem strange bedfellows but they were part of unintentional conspiracy to promote a focus on rational rather than emotional thinking and decision making. In the fourth century BC, Plato compared the human soul to a chariot pulled by two horses of reason and emotion. In his mind, human behaviour clearly had an emotional element. However, it is the horse of reason that has prevailed through the centuries and has

been predominantly used to explain human behaviour and the behaviour of consumers (Joubert, 2008:2).

Some of the best-known consumer decision-making models were developed in the 1960s and 1970s during a time characterised by limited theory on consumer behaviour and when theories from other disciplines were used. Until then, marketers rather than academics undertook research (Erasmus, Boshoff & Rousseau, 2001: 83).

The current research presents selected models of rational consumer decision making. Ehrenberg and Goodhart (1979) in Foxall et al (1998:33) present a simplified model of consumer behaviour that contains three phases of purchasing and consuming-awareness, trial and repeat buying.

The explanation of their model is provided by Foxall, Goldsmith and Brown (1998:33). Repeat buying, which is of an enormous significance to the success of consumer products and services, is shown as a function of trial purchase and consumption. The awareness, trial and repeat buying approach emphasises that awareness of a new brand, any other mental states it engenders, are not alone sufficient to guarantee adoption of the advertised brand. Rather, awareness results at best in curiosity and trial, and it is only when the brand is in use that evaluations and comparisons are possible.

Another suggested model proposed by Peter and Olson (1987) is depicted in Exhibit 2.1.



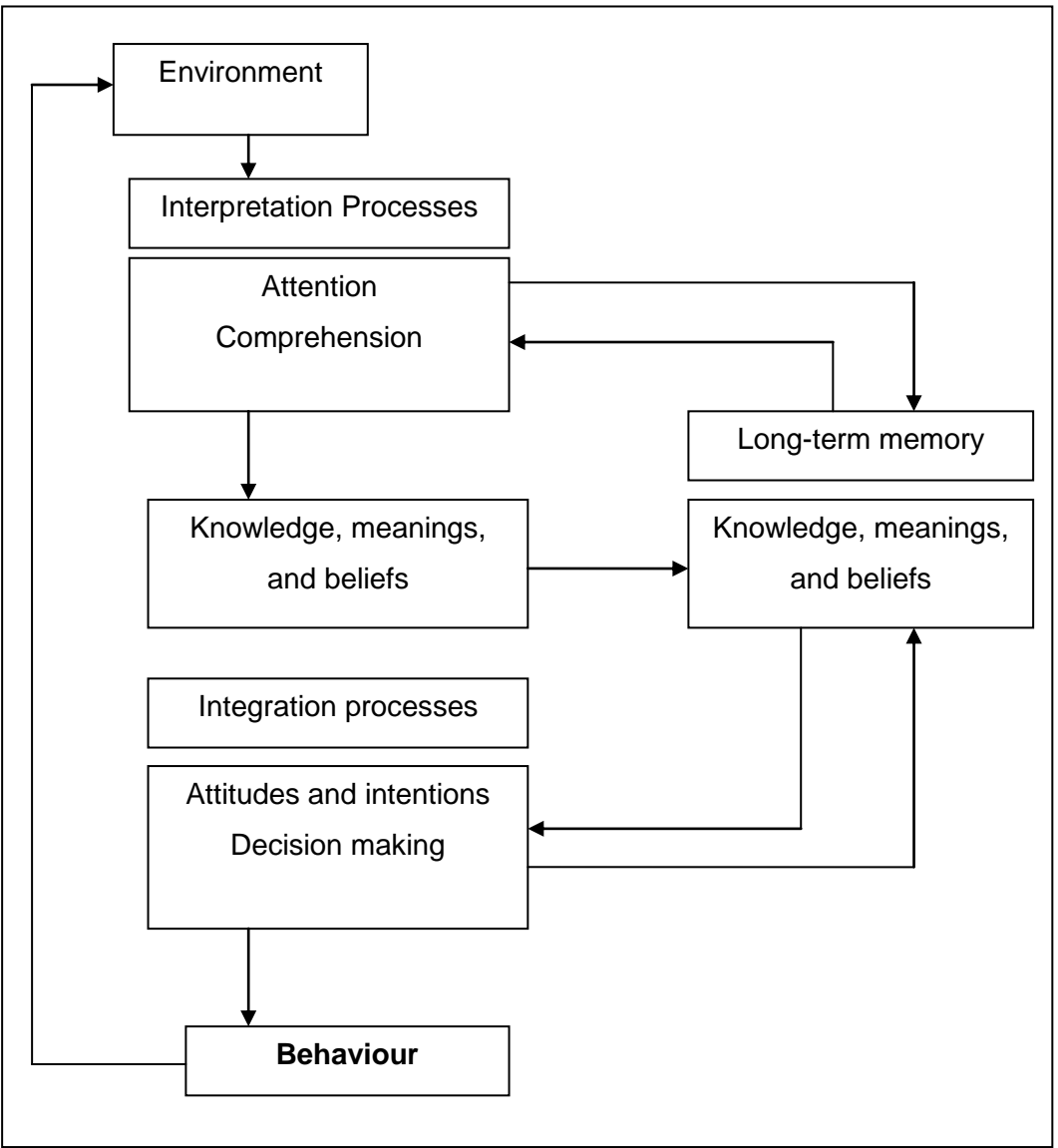


Exhibit 2.1: Peter and Olson’s model of consumer decision making

Source: Peter and Olson (1987:51)

Exhibit 2.1 presents a model of cognitive processes in consumer decision making. According to Peter and Olson (1987:50), this model contains two basic processes that correspond to the two functions of the human cognitive system. One concerns how consumers interpret the information they encounter in their physical and social environment. These processes produce a set of subjective meanings, also called

knowledge or beliefs. The other type of cognitive process concerns how consumers integrate relevant knowledge, meanings, and beliefs to evaluate objects in the environment or to decide among alternative behaviours (decision making/intention formation). Knowledge, meanings, and beliefs in memory have powerful effects on both types of processes.

The rational model proposed by Schiffman and Kanuk (2010:483) is depicted in Figure 2.2.

## External Influences

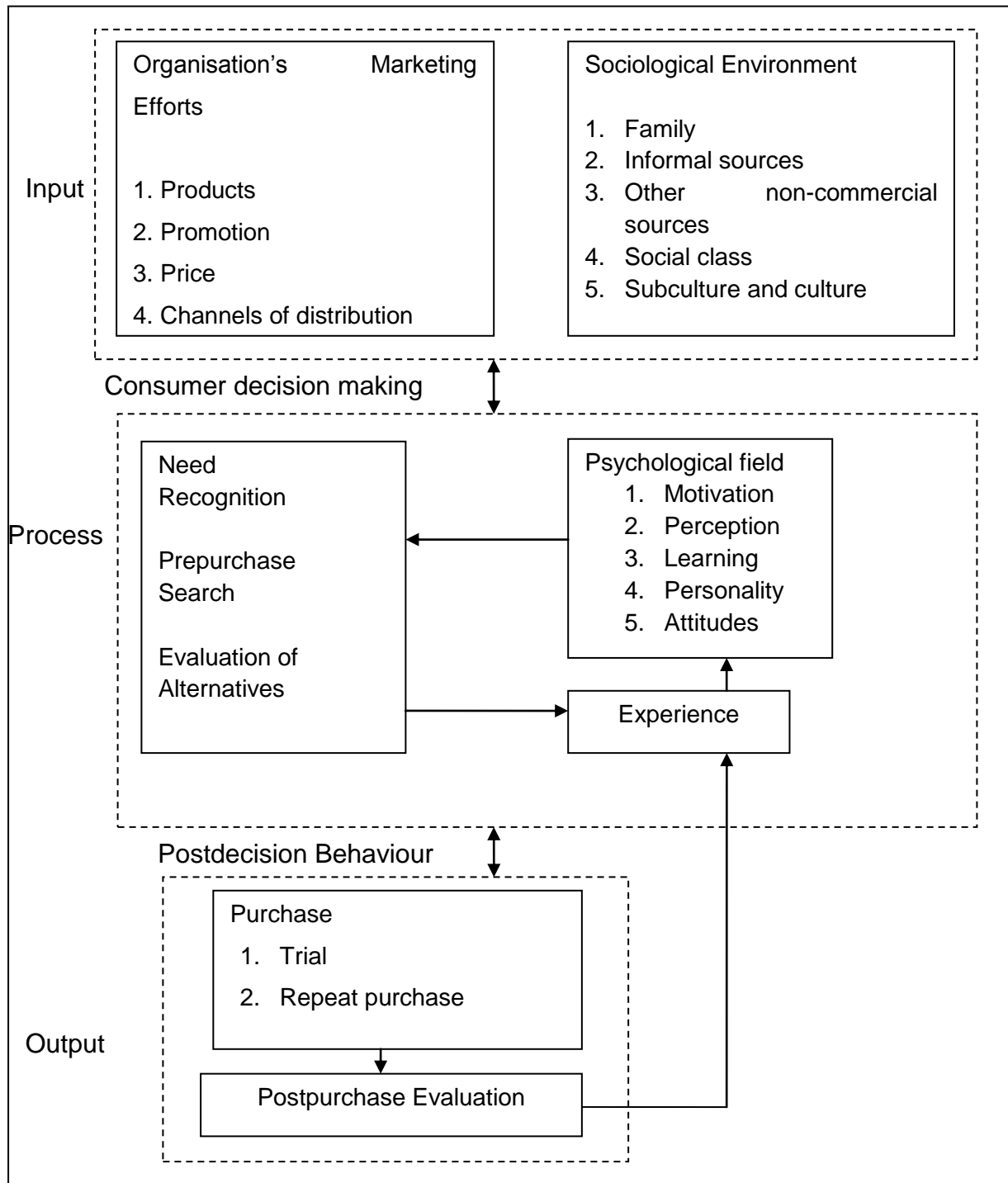


Figure 2.2: Schiffman and Kanuk's model of consumer decision making

Source: Adapted from Schiffman and Kanuk (2010:483)

Schiffman and Kanuk (2010:483) describe a rational consumer decision as one where the consumer is aware of all the product alternatives, where the consumer has the capability to correctly rank product alternatives in terms of benefits and disadvantages and is able to identify the best alternative. Bettman (1993:8) accentuates that an understanding of consumers decision-making behaviour not only has to focus on what products do (functional and performance attributes), but also has to consider what products mean to consumers.

Robbins, Decenzo and Coulter (2011:84) propose a model of decision making consisting of eight sequential steps. This model is depicted in Exhibit 2.2.

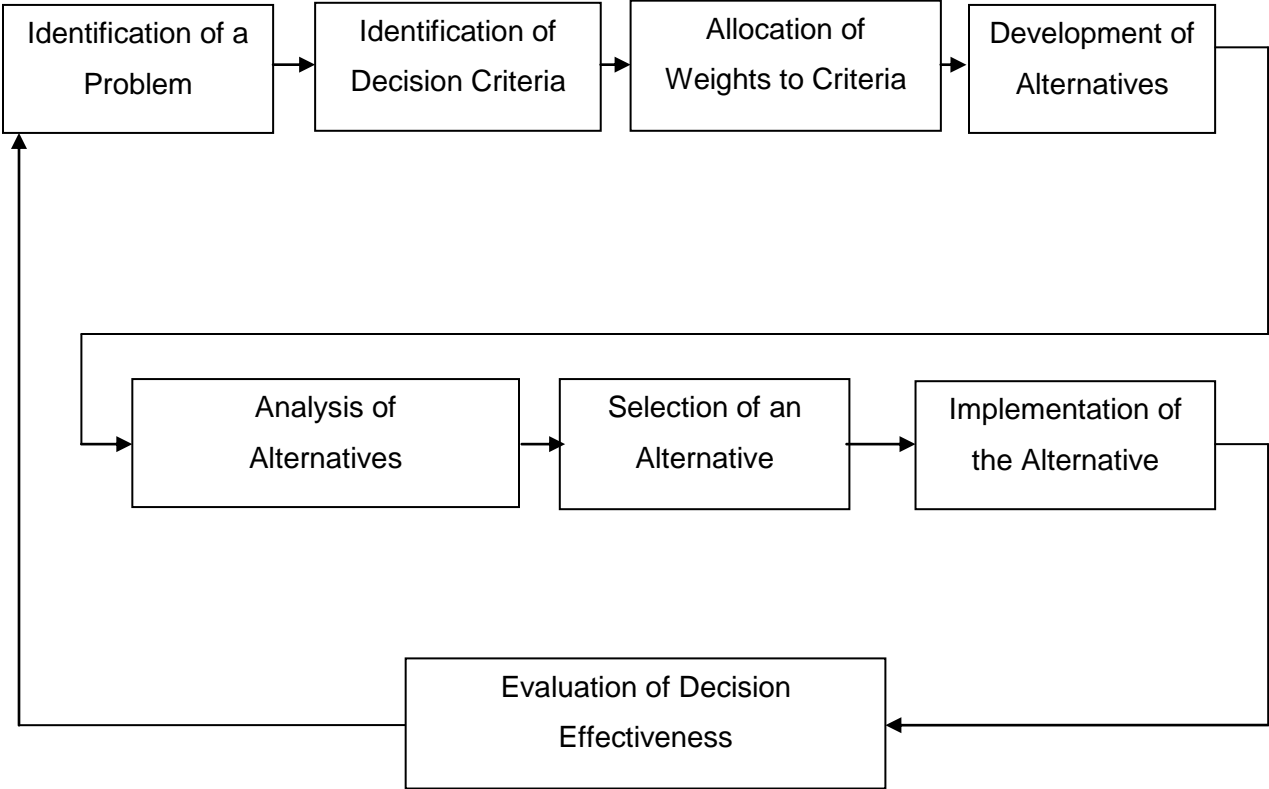


Exhibit 2.2: Robbins, Decenzo and Coulter model of decision making

Source: Robbins et al (2011:84)

The eight steps in the Robbins et al. (2011:84) model are: identification of a problem, identification of decision criteria, allocation of weights, development of alternatives, analysis of alternatives, selection of an alternative, implementation of the alternative and the evaluation of decision effectiveness. Robbins et al decision making process starts with the identification of a problem.

Inherent to the nature of any model, are drawbacks. The following section describes the pitfalls of the rational models of consumer behavior.

#### **2.4.2 Pitfalls of the rational models of consumer decision making**

Erasmus, Boschoff and Rousseau (2001:83-86) provide a detailed review of the pitfalls of these rational decision making models. The arguments against rational consumer behaviour include the fact that consumers operate in an imperfect world, that they possess limited knowledge and skills and that certain values might dominate their goals and decisions. Rational consumer behaviour thus seems too idealistic and simplistic. In reality, driven by emotional needs or concerns, consumers are limited in the options they are willing to consider during the decision-making process and consequently adapt the decision-making strategy (Schiffman & Kanuk, 2000:461). They could conclude that although long aware of the emotional or impulsive model of consumer decision making, marketers frequently prefer to think of consumers in terms of either economic or passive models. In fact, however, every consumer is likely to associate deep feelings or emotions, such as joy, fear, love, sexuality, and fantasy with certain purchases or possessions. These feelings or emotions are likely to be highly involving.

The emotional consumer decision making takes a step further in the understanding of consumers.

### **2.4.3 Emotional consumer decision making**

The emotional perspective of consumer decision making holds the view that a consumer's primary purpose is to seek products or services that satisfy or fulfil a desire and obtain pleasure in life. Accordingly, emotions are not as a result of an evaluation procedure but rather an affective response to consumer perception of stimuli in the environment.

The research design applied in this research was informed by a consumer decision making model conceptualised for the dairy industry. The model is depicted in Exhibit 2.3.

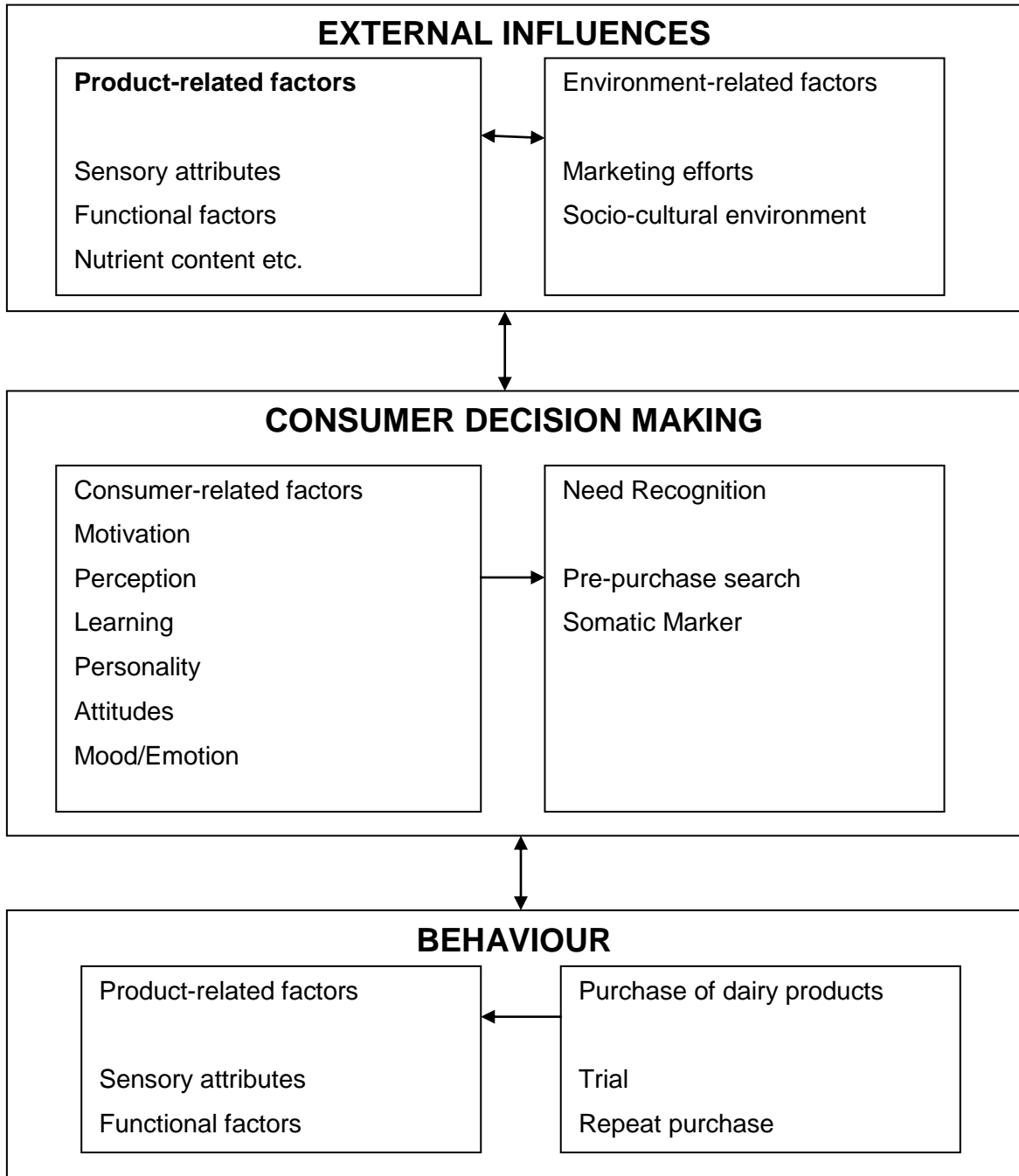


Exhibit 2.3: The consumer decision making model used for this research

Source: Joubert (2012)

This model acknowledges that it is commonly accepted that sensory properties, as well as a number of non-sensory factors, determine the decisions consumers make with respect to dairy products. However, the model acknowledges that to incorporate all the possible non sensory and sensory factors that influence when buying dairy products is an immense and probably impossible task.

According to Connors, Bisogni, Sobal and Devine (2001), factors that feature in models of food choice typically include issues related to health, taste, price/cost, convenience, mood, sensory appeal, natural content, familiarity and ethical concerns. Other influences frequently mentioned include family role modelling, cultural values, the media, demographics, self-esteem, body image, illness, life stage and context.

According to Joubert (2012), in attempting to make sense of the myriad of influences on consumer decisions it may be useful to divide these into three main groups:

- Product-related factors, including sensory attributes (taste, aroma, texture, visual appearance), functional factors (packaging, accessibility, convenience), nutrient content etc.
- Consumer-related factors, including personality (age, gender, education level), psychological factors (personality, experience, mood or emotion), physiological effects (satiety, hunger, appetite etc.)
- Environmental factors, which include economic (price, incomes), cultural (beliefs), and social factors (fashion, society etc.)

The model is also rooted on insights in consumer decision making (Damasio, 1994) that inform that one consumer related factors, mood or behaviour motion, not only causes decision making, but also determines the outcome of the decision making process. This model suggests that instinctive emotional responses shape rational behaviour and that



rational behaviour can not occur without emotional responses that direct attention and behaviour.

All these models have the merit of attempting to deepen the understanding of how consumers deal with their purchase decisions.

Some decision making models have been reviewed in section 2.4. Though the majority of them follow a cognitive perspective, others, including Joubert (2012) suggest an emotional perspective of consumer decision making. The current research embraces this view of the emotional perspective. Section 2.5 deals with advertising as an influencer in consumer decision making.

The next section explores various aspects of advertising such as its definition, its functions as well as how emotions can be integrated and measured in advertising.

## **2.5 ADVERTISING AS AN INFLUENCER IN CONSUMER DECISION MAKING**

Advertising and its impact on consumer decision making. The purpose of this section is to present the nature and the role of advertising.

### **2.5.1 Advertising defined**

According to Belch and Belch (2004:16) advertising is defined as any paid form of nonpersonal communication about an organisation, product, service, or idea by an identified sponsor. The paid aspect of this definition reflects the fact that the space or time for an advertising message generally must be bought. An occasional exception to this definition is the public service announcement (PSA), whose advertising space is donated by the media. The nonpersonal component means that advertising involves

mass media (such as television, radio, magazines, newspapers) that can transmit a message to large groups of individuals, often at the same time.

Shimp (2007:240) used a similar definition as he defines advertising as a paid, mediated form of communication from an identifiable source, designed to persuade the receiver to take some action, now or the future.

In the perspective of this research, rather than focusing on the definitions, the elements that are deemed important should be highlighted. In this regard, advertising makes use of a variety of media. Also, usually, advertising necessitates payment of space and time. Finally, there is always an objective attached to an advertising message, which is the expectation from the sponsor in terms of some action from the receiver, immediately or later.

## **2.5.2 Functions of advertising**

Many business organisations as well as not-for-profit organisations have faith in advertising. In general, advertising is valued because it is recognised as performing five critical functions: informing, influencing, reminding and increasing salience, adding value and assisting other company efforts (Shimp, 2007:246).

These functions will be discussed in more detail in the next section.

### **2.5.2.1 Informing**

One of advertising's most important functions is to publicise brands. That is, advertising makes consumers aware of new brands, educates them about a brand's distinct features and benefits, and facilitates the creation positive brand images (Shimp, 2007:246). In the same line, O'Guinn, Allen and Semenik (2009:112) indicate that

supporters of advertising argue that advertising educates consumers, equipping them with the information they need to make informed purchase decisions. By regularly assessing information and advertising claims, consumers become more educated regarding the features, benefits, functions, and value of products.

Another aspect of informing the public has to do with the role that advertising can play in communicating about important social issues.

### **2.5.2.2 Influencing**

Effective advertising influences prospective consumers to try advertised products and services. Some advertising influences primary demand, that is, creating demand for an entire product category. More frequently, advertising attempts to build secondary demand, the demand for an organisation's brand (Shimp, 2007:247).

### **2.5.2.3 Adding value**

According to (Shimp 2007:247), there are three basic ways by which organisations can add value to their offering: innovating, improving quality and altering consumer perceptions. They are reflected in the following quote:

Innovation without quality is mere novelty. Consumer perception without quality and/ or innovation is mere puffery. And both innovation and quality, if not translated into consumer perceptions, are like the sound of the proverbial tree falling in the empty forest.

This quote means that advertising adds value to brands by influencing perceptions. Effective advertising causes brands to be viewed as more elegant, more stylish, more prestigious and of higher quality.

#### **2.5.2.4 Reminding and increasing salience**

Advertising keeps a company's brands fresh in the consumer's memory. When a need arises that is related to the advertised product, past advertising impact makes it possible for the advertiser's brand to come to the consumer's mind as a purchase candidate. This has been referred to as making a brand more salient, which means enriching the memory trace for a brand such that the brand comes to mind in relevant choice situations (Shimp 2007:247).

#### **2.5.2.5 Assisting other organisation efforts**

Advertising is just one member of the marketing communications team. One of advertising's roles is to presell an organisation's products and provide salespeople with valuable introductions prior to their personal contact with prospective customers.

For the purpose of this research, these two functions of informing and influencing are considered the most important. In fact, there are misconceptions about milk, cheese, yoghurt and maas. Future advertising campaigns will focus on eliminating these misconceptions. In addition to that, the campaigns will aim to influence consumers by providing them information related to the various benefits of dairy products.

This section addressed the five functions of advertising, including informing, influencing, adding value, reminding and increasing salience, and assisting other company efforts. The next section will deal with emotions in advertising.

### **2.6 EMOTIONS IN ADVERTISING**

Emotion and feelings have received increasing attention in various disciplines in recent years. Technological developments have opened for new techniques to search for

knowledge, and the role played by emotions and feelings in human behaviour has become much clearer, although much is still unknown (Sorensen, 2008). In this section, emotions are classified and their measurement in the context of advertising explored.

### **2.6.1 Classification of emotions**

To assess emotions in the consumption or any other domain, one must be able to characterise emotion and distinguish it from other states. Unfortunately, this has not been an easy problem to solve. Plutchik (1980) reviewed 28 definitions of emotion. He concluded that there was little consistency among the definitions and that many of them were not sufficiently explicit to give a clear idea what an emotion actually is (Richins, 2011:127). Given the diversity of objectives, methods, and stimulus domains, it is not surprising that the typologies developed do not completely agree, although there is, of course, some overlap in the categories identified (Batra, 1996). According to Desmet (2003:11), psychologists have even offered a variety of definitions of emotion, each of them focusing on different manifestations or components of the emotion. The psychologists' most favoured solution is to say that emotions are best treated as a "multifaceted phenomenon" consisting of several components or characteristics. The four major components are behavioural reactions, expressive reactions, psychological reactions and subjective feelings. Behavioural reaction (e.g. running or seeking contact) is the action or behaviour one engages in when experiencing an emotion. Emotions initiate behaviour in the form of action tendencies such as approach, inaction, avoidance and attack (Arnold, 1960).

Expressive reaction (e.g. smiling or frowning) is the facial, vocal and postural expression that accompanies the emotion. Each emotion is associated with a particular pattern of expressions. For example, anger comes with a fixed stare, contracted eyebrow and compressed lips. Psychological reaction (activation or arousal, e.g. increase in heart rate) is the change in activity in the automatic nervous system which accompanies emotions. Finally, subjective feeling (e.g. feeling happy or feeling inspired)

is the conscious awareness of the emotional state one is in, i.e. the subjective emotional experience.

One of the clearest explications of these characteristics, and one that appears to be gaining acceptance, was proposed by Ortony, Clore, and Collins (1988). According to their framework an emotion is a “valenced affective reaction to perceptions of situations”. They exclude from the domain of emotions those descriptors that refer to (1) nonvalenced cognitions, such as interest and surprise; (2) bodily states such as sleepy and droopy; and (3) subjective evaluations of people, such as self-confident or “feeling abandoned.”

According to Pham (2007:155), emotions refer to complex states of the organism characterised by changes in autonomic nervous system arousal accompanied by distinct physiological expressions, specific action tendencies, and subjective feeling experiences of a certain valence. Emotions generally, though not always, arise from a cognitive appraisal of the emotional object or situation in terms of its meaning for one’s well-being (Lazarus, 1991). Pham (2007:155) makes a distinction between two types of emotional phenomena, namely, incidental emotional states and integral emotional responses. Emotional states influence reasoning processes and are often misattributed to focal objects, distort beliefs in an assimilative fashion, disrupt self-control when intensely negative, but do not necessarily increase risk-taking. On the contrary, integral emotional responses are often used as proxies for values, and valuations based on these responses exhibit distinct properties: efficiency, consistency, polarisation, myopia, scale- insensitivity, and reference-dependence. Emotions seem to promote social and moral behavior.

Bourne and Russo (1998: 364) define emotion as a “subjective internal state that has biological, cognitive and social components”. Put simply, sudden exposure to stimuli gives rise to a state of positive or negative autonomic arousal, provoking a cognitive analysis of the stimuli, which then provokes a physiological reaction leading to a feeling best described as emotion. By and large, these feelings are strong and uncontrollable and generally triggered by outside events (Haksever et al., 2000). Similarly, Sheth et al

(1999:356) state that “emotions are consciousness of the occurrence of some physiological arousal followed by a behavioral response along with appraised meaning of both”. De Rivera (1977) distinguishes between three main concepts of emotion: firstly, emotion as a psychological state related to instinct; second as a perception of value in response to a particular event or incident and third, emotion as a form of experience-based transformation which serves to enhance our understanding of a particular event or situation Lazarus (1991) suggests that this highlights another characteristic of emotion; namely the fact that they serve as a form of coping mechanism, serving to preserve deeply held values in one respect, while signalling the need for change in others.

In terms of classifying emotions for measurement purposes, Bourne and Russo (1998) suggest emotions have at least two principal dimensions. The first of these is largely qualitative in nature classifying emotion according to the degree of pleasantness felt (pleasant – unpleasant); while the other is largely quantitative, dealing with the intensity of the feeling experienced (mild – extreme). Plutchik (1980) takes this classification a step further suggesting that the pleasant-unpleasant dimension can be further sub-classified into eight primary human emotions including: fear, anger, joy, sadness, acceptance, disgust, anticipation and surprise.

Ekman et al (1982:43) identify various categories of emotions, including, interest/expectancy, surprise, disgust/scorn, skepticism, anger, fear/anxiety, shame, guilt, sadness, urgency, social affection and deactivation. LeDoux (1996) and Zajonc (1980) as stated in Joubert (2008:7) notice that there is a need to make a distinction between two types of emotions that operate on a continuum, depending on how much cognitive processing they require before the emotion is constituted. At the end of the continuum, emotions that occur automatically are placed, referred to as ‘lower-order emotions’. These are spontaneous and uncontrollable emotional reactions which Rossiter and Bellman (2005) call “type 1” emotion. Conversely, emotions that depend on deeper cognitive processing of the situation, referred to as higher-order or ‘type 2’ emotions, are placed at the other end of the continuum. These types of emotions are more

complex than lower-order emotions in that they need to be consciously labelled as a specific emotion.

One part of the challenge in understanding how products elicit emotions is to understand in what ways products can act as emotional stimuli. There is a wide variety of emotional stimuli; some direct, and some indirect and more associative. The current research, in identifying and measuring emotions elicited by advertising messages and dairy products, will advance the field of consumer behaviour.

### **2.6.2 Measurement of emotions in advertising**

Cacioppo and his colleagues wrote “emotions guide, enrich and ennoble life; they provide meaning to everyday existence; they render the valuation placed on life and property” (Cacioppo, Berntson, Larsen, Poehlmann & Ito, 2001: 173). A person’s emotions enrich virtually all of his or her waking moments with either a pleasant or unpleasant quality. Some studies have shown that emotions have a strong influence on our general experience of well-being, i.e. people’s valuation of their lives (Diener & Lucas, 2000).

Emotional responses can incite the customer to pick a particular model out of the row. Moreover, given that the first impression of a product strongly influences purchase decisions, emotional responses to consumer products may be a decisive factor in purchase decisions.

Consumer psychologists have continuously been confronted by consumers’ intent or behaviour being either thought or feeling driven. In latest decades, emotions have become an important research topic in behavioural sciences and, not the least in advertising. No advertising researcher, be it practitioner or academic doubts that emotions are an important factor in the advertising process. Particular interest has surrounded the role of emotion in consumer responses to advertising. The earliest



conceptual advertising model introduced by Strong (1925), for creating any advertising or marketing communication message, is arguably the AIDA Model: get Attention, hold Interest, arouse Desire, and then obtain Action. Joubert (2008:6) explains the model and says that an emotional reaction (here Desire) occurred only after consumers experienced interest in the advertisement or the product. This led to the widespread conception that the advertising process starts with attention (A), followed by cognitive processing (Interest), which leads to affect (Desire), and then generates behaviour (Action). Models based on this order of processing, says Joubert (2008:6), are generally called 'hierarchy of effects' models and dominated advertising literature for years.

Traditionally, attempts to measure emotions have been done in the field of psychology and sociology. Many types of instruments for measuring emotions are reported. Acknowledging the important role of emotions in their field of research, consumer and marketing researchers have developed instruments which measure emotions elicited by advertisements and consumer experiences (Desmet, 2000).

## **2.7 CHAPTER SUMMARY**

This literature conveys that the academic field of consumer behaviour has long been associated with the marketing discipline. As an academic discipline, consumer behaviour was defined and its scope explored. Four major consumer decision making models were described, with the current research providing particular attention to the model suggested by Joubert (2012) for the dairy industry. The last section of the chapter dealt with advertising, its functions and the role of emotions in advertising

Chapter 3 will provide the research context relating to generic marketing in the dairy industry and an overview on the South African dairy industry.

## **CHAPTER 3: RESEARCH CONTEXT**

### **3.1 INTRODUCTION**

Generic promotion of dairy products has become a familiar phenomenon in many dairy producing countries. Previous research suggests its value in increasing dairy demand in various countries such as the USA, the United Kingdom and Australia.

For the purpose of this study, the chapter reviews generic marketing campaigns in selected countries which can provide a strategic indication for the South African dairy industry. It also provides a description of the South African dairy industry.

The main sections of this chapter are depicted in Figure 3.1.

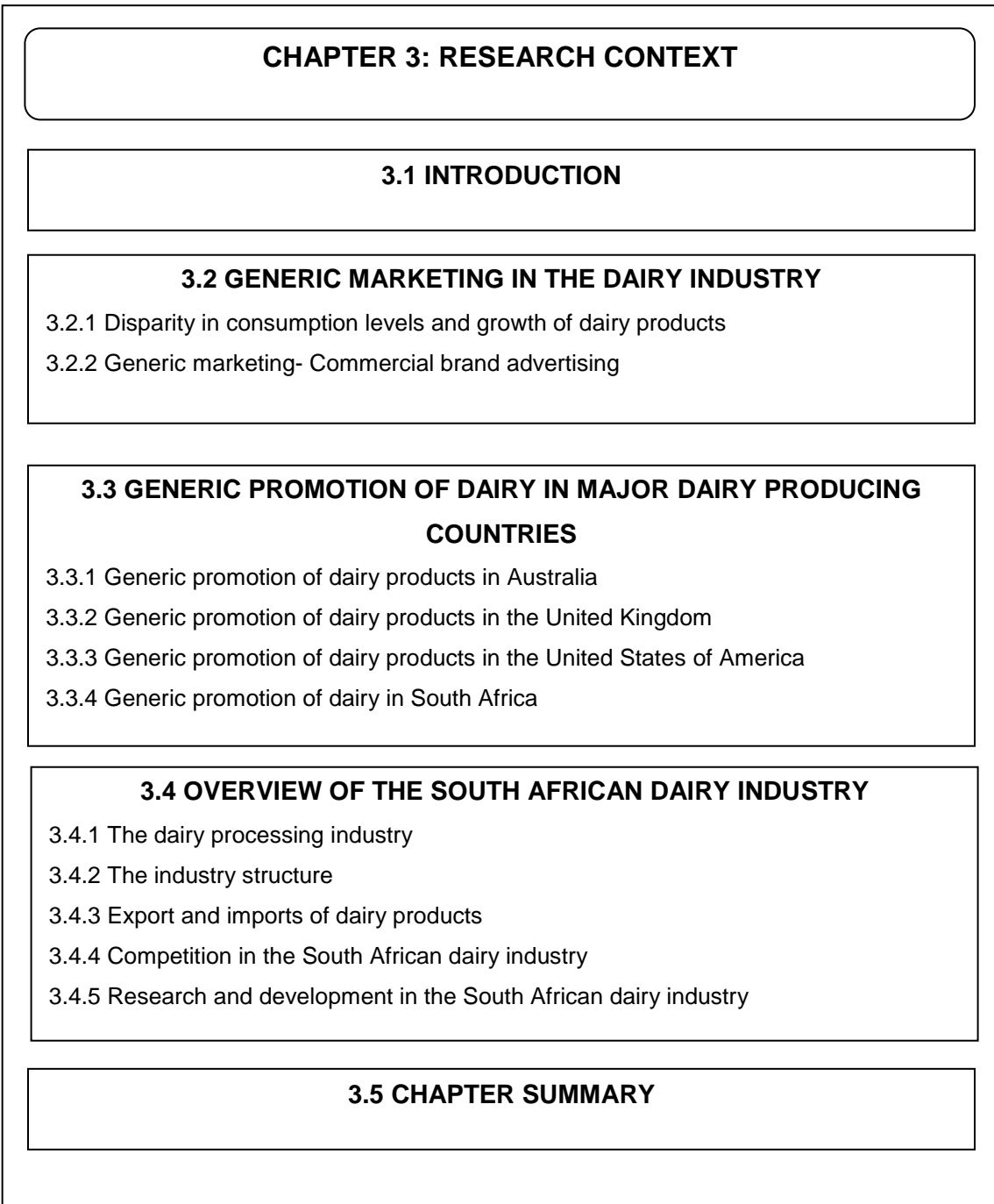


Figure 3.1: Layout of Chapter 3

## **3.2 GENERIC MARKETING IN THE DAIRY INDUSTRY**

According to Schmit, Gould, Dong, Kaiser and Chung (2001:22), as agriculture in general and the dairy industry in particular, moves towards a more market-oriented system, understanding the relationships and significance of generic promotion efforts to enhance industry prospects and revenues will remain a high-priority concern. Gould (1997) comments that many dairy industries, including that of the United States, have responded to the decreasing per capita dairy product consumption during the early 90s by adopting industry-wide advertising and promotion campaigns.

This section focuses on the disparity levels and growth of dairy products. It also distinguishes generic marketing from commercial brand advertising.

### **3.2.1 Disparity in consumption levels and growth of dairy products**

The OECD-FAO report (2011) gives an indication of how dairy consumption differs between developed and developing countries. Figure 3.2 shows a large disparity in consumption and growth.

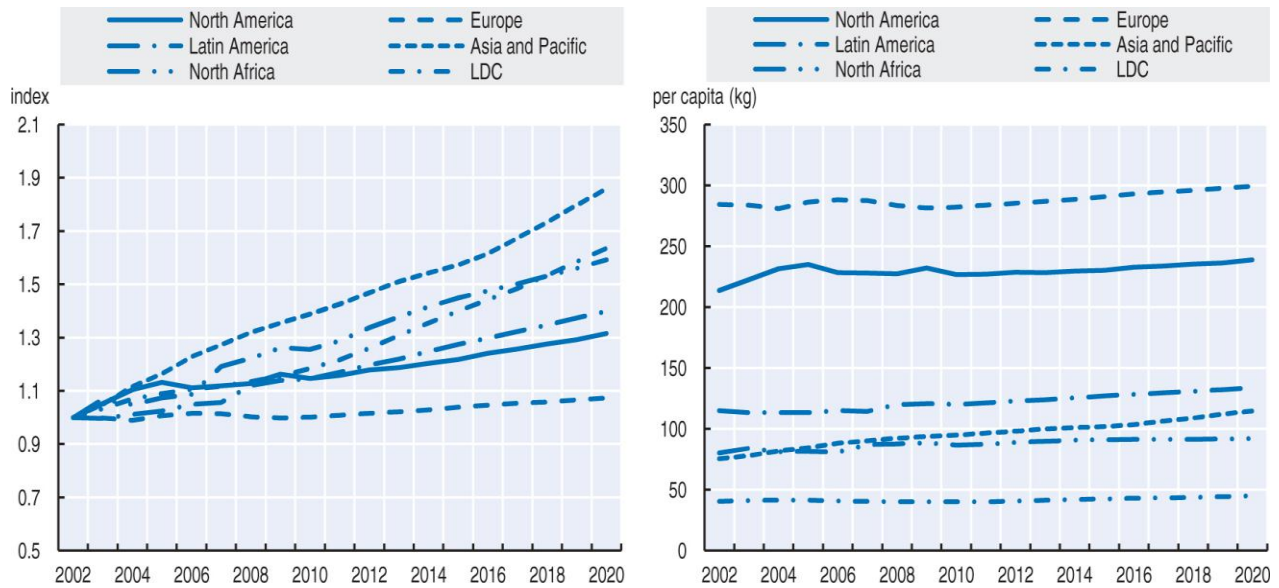


Figure 3.2 Disparity in consumption levels and growth of dairy products

Source: OECD and FAO Secretariats 2011

Figure 3.2 shows that demand for milk should remain particularly strong in important developing countries such as North Africa, the Middle East Asia, but also in more mature markets such as those in the European Union, the United States and Russia.

As indicated in Figure 3.2, the rate of growth and per capita consumption of milk and milk products remains completely different among regions. Less developed countries consume less than 50 kg per person per year on average, compared with 100 kg per person per year for developing countries, while the developed regions of North America and Europe consume well in excess of 200 kg per person.

The OECD-FAO report first provides the underlying factors for the strong demand for dairy products. The increasing population and income, together with the growing popularity of dairy products, particularly among developing country consumers are some of the major factors behind strong demand in the medium term. In these countries, demand continues to be encouraged by the growing influence of retail chains

and multinational companies, which is facilitating improved consumer access to dairy products. Government programmes such as “school milk” which encourages the consumption of milk in schools for health reasons, is another factor for increase in demand for dairy products.

The data included in Figure 3.2 are very important to the current research because such per capita consumption disparity represents an investment potential and future opportunities for the South African dairy sector in terms of dairy generic and brand marketing, especially in South Africa where “the average milk consumption at the moment is 25 litres per capita per year” (Hunt, 2011:11).

In this study, a clear distinction between generic marketing and commercial brand advertising is deemed necessary for a better understanding of the content of the next section. Section 3.2.2 makes provision of this distinction.

### **3.2.2 Generic marketing-Commercial brand advertising**

There is a rising trend for organisations to advertise collectively in response to the changing marketing environment facing their particular industry. Traditionally, firms choose to unite in collective advertising when their own products cannot easily be differentiated from close competitors’ products (Kinnucan, Thompson & Chang,1992). However, organisations can conceivably form a united front in response to changing market trends even with differentiated products. Examples include “Made in U.S.A.” campaigns in the US textile industry in the light of extensive foreign competition. Beef, pork, and poultry producers also advertise collectively in response to health conscious trends that encourage reduced fat and low cholesterol diets (Carey & Bolton, 1996:93).

The NAMC report (2001:49) differentiates brand marketing and generic marketing. It states that brand marketing is undertaken by an individual company with the aim of growing the market for its brand, i.e. to increase its market share by diverting existing

consumption from competing brands and by stimulating additional consumption. In contrast, generic marketing is undertaken by an industry or group in a cooperative effort to promote benefits that relate to the whole sector or category rather than to specific brands.

A company is most likely to capitalise on brand advertising when consumers are assumed to lack information regarding their own preferred bundle. Consumers that are satisfied with their purchases of the brand will become reluctant to switch brands. However, consumers who are not satisfied with their current brand are more likely to be lured by persuasive “informationless” advertising. Thus, brand advertising campaigns are designed to promote the company’s brand and reduce the firm’s demand elasticity by building brand loyalty, and increasing its market share (Carey & Bolton, 1996:95).

Brand advertising provides little information about the characteristics of the product. An example is a television commercial showing basketball superstars, Michael Jordan and Larry Byrd, shooting hoops for a McDonald’s hamburger. Although this doesn’t tell the viewer much about the characteristics of the hamburger, it helps build brand recognition.

Lancaster (1979) refers to this as “informationless” advertising. Generic advertising provides information about certain characteristics, new or existing, of the product.

Most of the studies substantiate the claim that generic promotion increases sales. It should be noted that these studies have been case specific. For example, a study by Blisard, Blayney, Chandran and Allshouse (1999) modelled the effects of generic advertising on fluid milk and cheese sales in the US from 1984 to 1997. The results of the simulation indicated that gains in sales are fairly constant from year to year and fluctuate with changes in aggregate spending on generic dairy advertising.

Lee and Brown (1992), as stated in Carey and Bolton (1996:97), assessed the impacts of both brand and collective generic advertising in the orange juice industry. They found

that both brand and generic advertising significantly increased the firm's orange juice sales. Generic advertising significantly impacts on the industry demand for orange juice while brand advertising significantly impacts on the market share. However, brand advertising does not have a significant impact on industry sales.

Commercial brand advertising relates to marketing initiatives of a particular company operating in a specific industry while generic advertising is all about a whole industry's marketing efforts to promote its products. This research targets the South African dairy industry. Section 3.3 presents a review of marketing initiatives undertaken in dairy industries in Australia, United States and the United Kingdom.

### **3.3 Generic promotion of dairy in major producing countries**

In line with the importance of generic marketing stated by Schmit et al (2001) in section 3.2, the following section deals with initiatives that have been undertaken by major dairy producing countries regarding generic marketing actions.

#### **3.3.1 Generic promotion of dairy in Australia**

The dairy industry is important to the Australian economy. For its survival the industry capitalises on generic marketing. The motivation for this increased interest in marketing activities is addressed in this section.

##### ***3.3.1.1 The Australian Dairy situation***

According to Dairy Australia, around 9 billion litres of milk were produced by the country in 2010. The dairy industry is one of Australia's major rural industries. Its farmgate value of production of \$4 billion ranks third after the beef and wheat industries (Dairy



Australia, 2010). Australia is a small producer of milk but is the world's third largest dairy exporter as 50% of production is exported.

According to the Australian Bureau of Agricultural and Resource Economics (ABARE), dairy farming occurs in all states, mainly in higher rainfall coastal areas and in some inland irrigated regions: Victoria (Gippsland, Murray Basin and South West), New South Wales (North Coast, Central West, South Coast, Riverina and Hunter), Queensland (South East, Atherton Tablelands), South Australia, Western Australia (Bunbury–Harvey, Busselton–Albany) and Tasmania. Victoria is the largest producing state accounting for 66 per cent of milk production (ABARE, 2005:5).

Australian milk production decreased by nearly 80 million litres, or 0.9%, to 9,101 million litres in 2010/11. This reflected a second consecutive season of improved conditions with plentiful water, lower input costs and strong milk prices. However, conditions varied significantly around the country; from very dry conditions in south-west Western Australia over most of the season, to a major cyclone and severe flooding across most of Queensland from late-2010 into early-2011. Parts of the New South Wales coast, northern and eastern Victoria also experienced widespread flooding during the year. (Dairy Australia,2012).

### ***3.3.1.2 Motivation for dairy generic promotion in Australia***

Traditionally, state and territory milk authorities cooperated to promote milk consumption. However, there has been a decline in milk consumption due to some significant factors that have had a negative impact on consumption. These include:

- Health arguments against foods that contain fat and cholesterol.
- The “fad” debate against consumption of cereals at breakfast.
- A significant increase in consumption of meals out of home, particularly breakfast.

- An increase in the consumption of take away fast food at home and the trend towards home food replacements.
- A reduction in the baking of cakes and puddings that require milk as an ingredient.
- The almost total cessation of home delivery of market milk.
- An ageing population and falling birth rate.
- An increase in the number of ethnic Australians from traditional non-milk consuming backgrounds.
- Falling sales of flavoured milk additives such as chocolate.
- The introduction of innovative competitive beverages such “new age” and “energy” drinks.
- The emergence of soy drinks with strong promotion of health benefits.
- Industry deregulation that resulted in initial price increases at retail level in excess of increases for similar products and consumer price index (CPI).

Following declining milk consumption in the 1970s, and early 1980s, the Conference of Australian Milk Authorities (CAMA) undertook to pool resources to develop a national approach to milk promotion. The underlying reason was to build off the comprehensive platform developed by the Australian Dairy Corporation (ADC) in promoting the health and nutrition benefits of dairy foods.

### ***3.3.1.3 Generic dairy campaigns- the Australian perspective***

According to Frost (2000:363) promotion of agricultural products such as milk, has been characterised by generic promotion. In the case of milk, generic promotion, which is generally industry funded, is sought as the marketing strategy to engender a positive attitude in the consuming public. Furthermore, in the Australian dairy industry, generic promotion is carried out at two levels: one that is funded at a national level and one that is funded at a state level.

The national generic white milk campaigns have typically been run as television campaigns. Examples are “Live on Milk”, “Milk – too good to miss out on”. Generic promotion by the Australian dairy industry has been successful in transforming milk from a commodity to a branded personality. Targeted campaigns have repositioned milk's image from the innocuous to legendary status, leading to increased milk consumption. This generic promotion has had an impact on milk sales and per capita consumption.

CAMA's generic campaigns for milk were targeted to effectively create awareness and improve/maintain positive attitudes towards milk, which leads to consumption and volume gains for the industry. This strategy also allowed processing companies to build their proprietary brand position.

Generic campaigns were developed to effect a change in consumer behaviour by driving consumption in the short term and changing attitudes and behaviour in the long-term. Three forces were considered to drive milk consumption – emotional, rational and behavioural. The rational “I need it” and emotional “I want it” sides of the triangle primarily affect attitudes in the long-term. The third side, behavioural, “Don't forget it” has the short-term goal of seeking to change consumer purchase behaviour. Campaigns outlined include “Milk. Are you getting enough?” and “Milk. Legendary stuff”. These two have been selected and will be briefly discussed below.

- ***“Milk. Are you getting enough?”***

The “*Milk. Are you getting enough?*” campaign was launched in March 1994 with the release of the *Bachelor and Spinster (B&S) Ball* television commercial. This heralded a major change in direction in the advertising of milk in Australia. Rather than simply acknowledging the health and nutritional benefits of milk, the campaign repositioned milk to become a contemporary social beverage. The advertising pushed traditional boundaries by adopting a somewhat ‘risqué’ approach.

- ***“Milk. Legendary stuff”***

The launch of the “*Milk. Legendary stuff*” campaign in February 1998 used many of the key learnings from the development and execution of the previous campaign.

With the dissolution of CAMA and changes in the roles of state and territory marketing authorities, the continuation of successful generic marketing for milk now rested with the national marketing body, the Australian Dairy Corporation. Generic promotion has been shown to be an effective way of maintaining the health and nutritional image of milk and to expand sales. Working together with strong branded promotions, generic activity has been important in ensuring the prosperity of the dairy industry in Australia.

### **3.3.2 Generic promotion of dairy in the United Kingdom (UK)**

The second industry selected for this review is the UK dairy industry that has been characterised by a number of successful promotion efforts. Sections 3.3.2.1, 3.3.2.2 and 3.3.2.3 present respectively the UK dairy situation, the various campaigns initiated as well as their impact.

#### ***3.3.2.1 The UK dairy industry situation***

The UK is the third largest milk producer in the EU after Germany and France – and the ninth largest producer in the world. Milk accounted for 16.1% of total agricultural output in the UK in 2010. Around 13 billion litres of milk are produced each year. Most of this is consumed within the UK, as liquid milk and dairy products. In 2010, the industry was worth £3.3 billion at market prices (UK Dairy Statistics, 2011).

According to the UK Dairy Statistics (2011), in 2010 around half of the milk processed in the UK (51%) was used for liquid milk. A further 26% was processed as cheese, with

the remainder used for milk powder and condensed milk (10%), cream (2%), butter (2%), yoghurt (2%) and other products (3%).

Imports make up a very small proportion of total supply of liquid milk in the UK. Less than 1% of milk available to UK dairies was imported in 2010. However, imports are more important for milk products. The UK imports significant quantities of butter and cheese, namely 67% and 54% respectively in 2009. In 2010, cheese was mostly, imported from other European countries such as Ireland, France, Germany, Italy and Belgium. Butter was mainly imported from New Zealand, Denmark and Ireland (UK dairy statistics, 2011:3).

### ***3.3.2.2 Generic dairy campaigns: the UK perspective***

Historically, the generic marketing of milk in the UK was undertaken by the Milk Marketing Board (MMB). They had a responsibility to maximise the value of milk in the market place on behalf of farmers and were, therefore, highly focused on product marketing (Rutter 2007). The MMB undertook marketing directly as well as through the Dairy Council that undertook a number of highly successful generic marketing campaigns. These campaigns promoted mainly cheese and liquid milk, with the majority of the funds allocated to the liquid market, as liquid milk was seen as the flagship product for the dairy industry. Successful campaigns have been launched by the Dairy Council. Figure 3.3 provides a summary of these campaigns.

Millions of litres

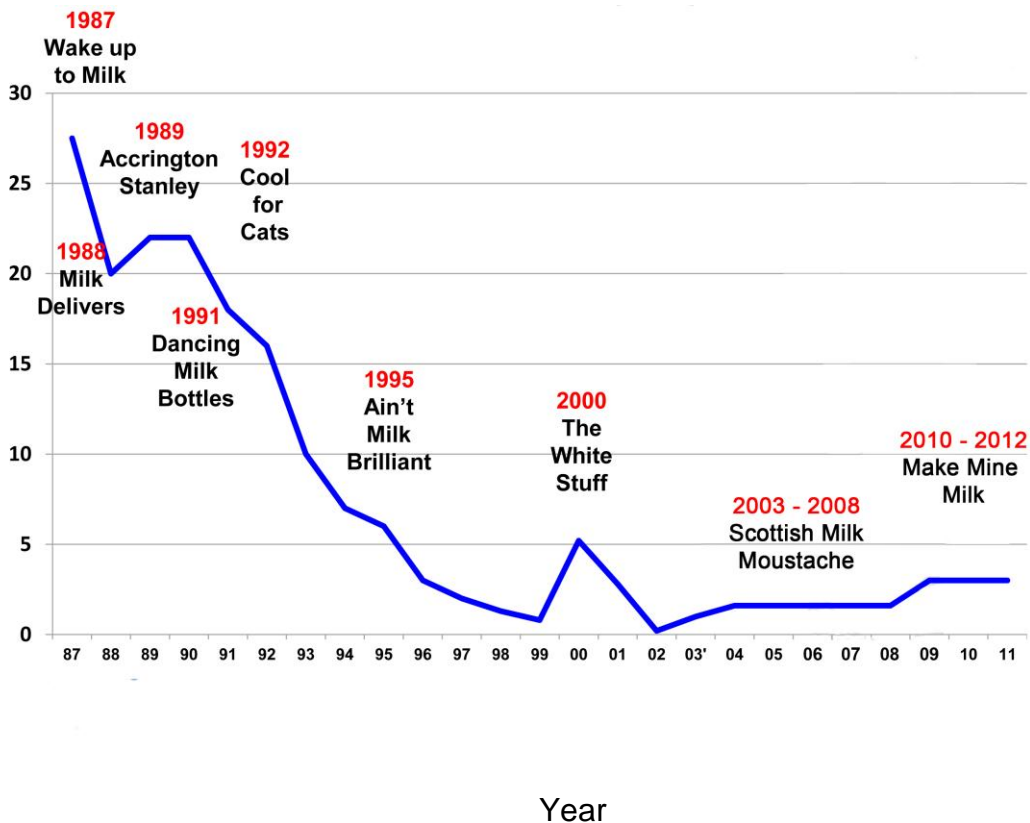


Figure 3.3 UK dairy industry generic campaigns from 1987 to 2012

**Source:** Dairy UK, 2012

As indicated in Figure 3.3, the campaigns included “Wake up to Milk” (1987), “Milk Delivers” (1988), “Accrington Stanley”(1989), “Gotta Lotta Bottle” and the “dancing milk bottle” (1991), and the “Cool for cats” (1992) campaign . According to Rutter (2007), in 1991/93, the MMB estimated an additional 326 million litres to the size of the liquid milk market. In 1993, the Dairy Council spent £12 million on generic campaigns.

The UK dairy industry was deregulated in 1994. Generic marketing of dairy products has always been undertaken by the industry, though the amounts invested in such campaigns have been decreasing significantly. The most recent generic campaigns of dairy in the UK are the “Scottish Milk Moustache” and “Make Mine Milk”. Special attention will be given to the last-mentioned campaign.

- **“Make Mine Milk” (2008-2012)**

This campaign was initiated in Great Britain with the following objectives:

It had to improve perceptions of the healthiness of low fat milk in Great Britain and improve emotional attitudes towards milk. The campaign was also designed to stem down the drop in sales of liquid milk as well as raise the profile and visibility of milk, especially low fat milk through communication activities built around the concept of celebrity. The following celebrities have been associated with the campaign: Gordon Ramsay, Pixie Lott, Jenson Button, Elle Macpherson, Usher, the A-Team, The Wanted, Team Milk, Kelly Rowland, Rupert Grint and Kelly Osbourne. In its implementation, the campaign included additional activities such as:

- The Milk Challenge - An ongoing milk drinking challenge
- 2% Fashion – T-shirt design competition with Alexis Jordan
- Mate of the month – Online competition with Kelly Rowland
- “Milk” concert with The Wanted
- Presence at festivals
- Branded milk bars at country shows
- Livery on company vehicles
- Support activities in retailers (Asda) and on-pack in Spa

The UK dairy industry has initiated a number of dairy campaigns, especially since 1987. Section 3.3.2.3 describes the impact of these campaigns.

### 3.3.2.3 Impact of the campaigns in the UK

The UK Dairy industry (2012) provides the following impact of the campaigns, especially the “Make Mine Milk” campaign. The effectiveness of the campaign is depicted in Figure 3.4.

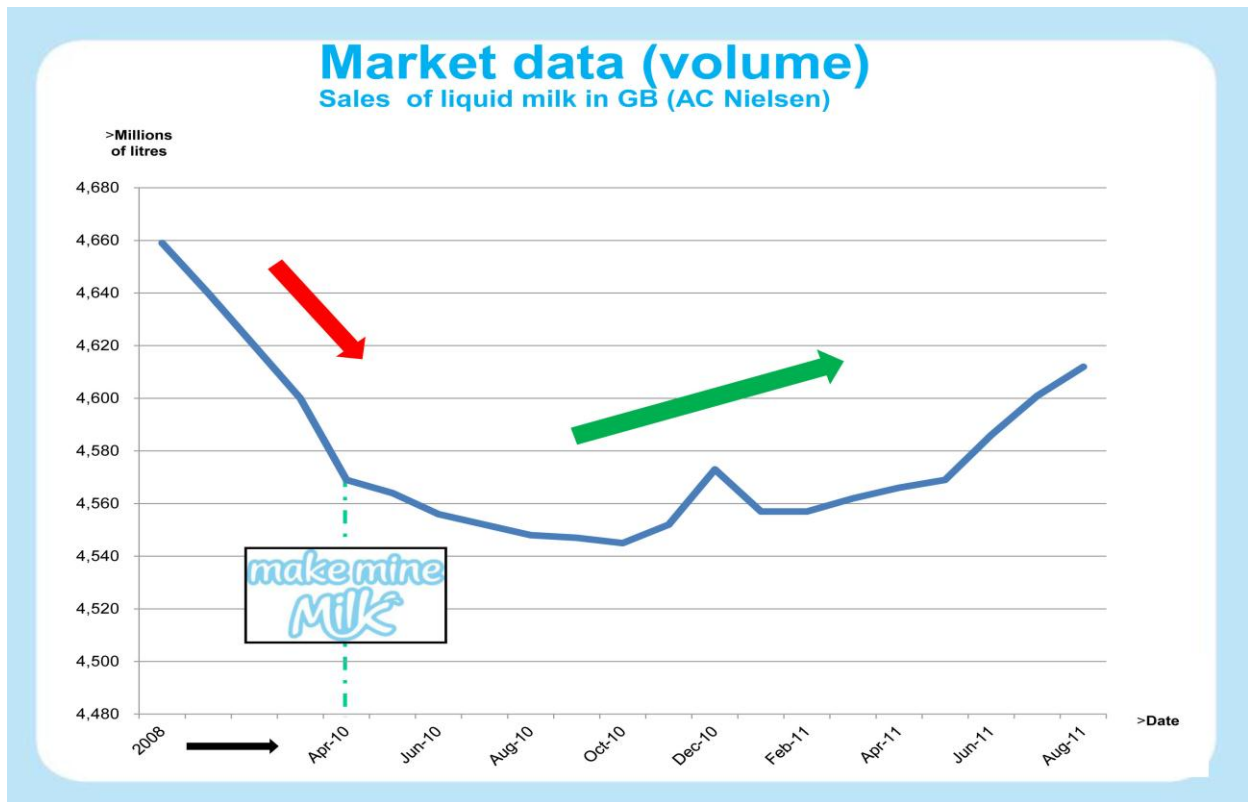


Figure 3.4: Effectiveness of the “Make Mine Milk” Campaign

Source: UK Dairy Statistics (2012)

Market data shows that milk consumption in Britain has increased in real terms:

Latest tracking research indicates that total campaign awareness is now up to 60% and is at 71% among the core teenage audience. AC Nielsen figures, based on retailer till receipts, showed a 0.6% rise in volume for the 52-week period ending November 2011



(for the 52 weeks prior to the campaign started in April 2010, it showed a -1.7% decline.)

Kantar figures, based on consumer interviews, for the 52-week period ending November 2011, showed a 2.5% increase in volume, when compared to the 52 weeks ending November 2010.

Sales data available from the five MMF members (Arla, Dairy Crest, Robert Wiseman Dairies, First Milk and Milk Link), independently audited, showed an increase of 1.4% in volume in the first half of 2011 versus the first half of 2010. This equates to an incremental volume increase of 96.9 million litres, versus the estimated decline without “Make Mine Milk” of -0.5%.

As indicated in section 3.2, generic campaigns in the UK have had a tremendous impact on demand for dairy products. The US dairy industry and its promotion efforts will now be reviewed.

### **3.3.3 Generic promotion of dairy in the United States (US)**

An overview of the US dairy situation, including two selected campaigns and their impact are reviewed in section 3.3.3.1 and 3.3.3.2.

#### **3.3.3.1 The US dairy industry situation**

The US dairy industry is sixth largest in the world in terms of milk production and in 2010 represented more than 10% of the total milk production in the world.

According to the United States of America Dairy Industry (2010), current trends show that US milk production is shifting to the western half of the country, primarily from the

South Eastern and North Eastern States. In terms of trade, in 2010 around 13 percent of US milk production was sold overseas. Mexico, Southeast Asia and Canada remained the largest destinations for US dairy products whereas New Zealand and Italy are the top two countries selling dairy products to the US.

Government support to the dairy industry is provided through the US Federal Dairy Policy, which has five main components. These include dairy product price support through the Dairy Product Price Support Program; Federal Milk Marketing Orders; direct payments under the Milk Income Loss Contract (MILC) Program; the Dairy Export Incentive Program; and tariff rate quotas on dairy imports. Dairy cooperatives are also major players in the US dairy industry and, as a group, represent the most prominent of all agricultural marketing sectors.

In 2010, US exports of cheese, total whey products, lactose and other dairy products were valued at \$3.71 billion, up 63 percent from the previous year. Export volume totalled 3.04 billion pounds of US milk solids, up 40 percent from 2009. US dairy imports increased by 2 percent in 2010 to \$2.60 billion. On a volume (total solids) basis, imports were the lowest since 1997. Export volume was more than four times the level of imports (IUF Dairy industry Research, 2010).

### ***3.3.3.2 Generic dairy campaigns in the United States (US).***

Prior to 1984, there was no national mandatory checkoff (or levy) for dairy advertising and promotion. However, many states had their own checkoff programs, which were primarily used for promoting and advertising fluid milk (Kaiser, 2000:3).

The government plays a significant role in US agriculture, including allowing a majority of farmers to require all producers of a particular commodity to pay assessments to support promotion programs, such as “Got Milk.” According to the *Washington Times*,

such marketing programs “generate at least \$2 in profit for every dollar spent” (Johnson,2008).

Per capita fluid milk consumption in the US has been steadily declining for decades as it is depicted in Figure 3.5.

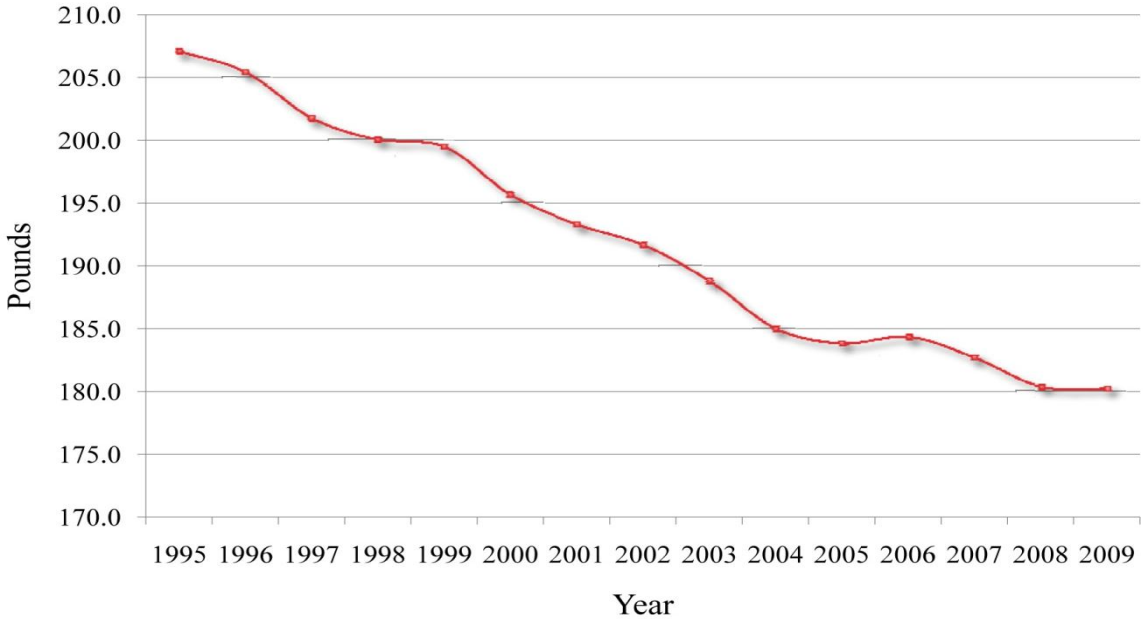


Figure 3.5: Per capita fluid milk consumption in the US

Source: NICPRE, 2010

Figure 3.5 illustrates the declining trend in per capita fluid milk consumption since 1995. From 1995 through 2009, annual per capita consumption declined by 13%. This translates into an average annual rate of decline of 0.9% per year. Annual per capita consumption actually increased slightly from 2005 to 2006, increasing from 183.8 pounds to 184.3 pounds, but declined to 180.2 from 2006 to 2009. From 2008 to 2009, the downward trend in per capita consumption stabilised somewhat with very little change from the previous year (NICPRE, 2010:5).

Among the factors behind this decline are changes in US demographics, changes in consumer preferences for fluid milk, how and where people consume food, changes in consumer income, changes in retail fluid milk prices, changes in advertising and marketing by producers of beverages that compete with fluid milk, and changes in generic fluid milk advertising and marketing (Kaiser 2010:5).

According to Forker and Ward (1995), the primary purpose of domestic generic advertising is to expand the demand for the commodity being promoted. Dairy farmers spend about \$150 million annually on advertising and promotion of dairy products. In 1984-85, the National Dairy Board, the American Dairy Association, and more than 24 State or regional promotion organisations invested \$71.7 million in advertising for the consumer fluid milk market. Campaign themes included "Milk, America's Health Kick" and "Milk, It Does a Body Good." An additional \$49.3 million was invested in cheese advertising using themes such as "Cheese, Glorious Cheese" and "Say Cheese." About \$20 million was invested in promoting dairy foods as a source of calcium, using the theme "Dairy Foods, Calcium the Way Nature Intended".

In terms of advertising campaigns, special attention will be paid to the “*Got Milk?*” and the “3A Day” advertising Campaigns.

- **The “*Got Milk?* Advertising” campaign in the US**

The first “*Got Milk?*” advertisement was aired on October 24, 1993, after being created for the California Milk Processor Board. The advertisement was immensely popular, winning awards at both the Cannes International Advertising Festival and the CLIO Awards In 1994. By 1995, the slogan had been licensed to dairy Boards across The US, including The Milk Processor Education Program (MilkPEP), which is responsible for the “*Got Milk?*” advertisements featuring celebrities and athletes sporting milk mustaches.

The first category of buyers introduced is mothers. The goal in targeting mothers is to sell milk as a Healthy drink. Campaign slogans like “Nature’s Wellness Drink” and “Drink Well, Live Well” all promote milk as a “naturally nutrient-rich beverage that offers consumers many health benefits in a one package” (USDA, 2011:18).

The second audience focused on in 2009 was the Hispanic population. No doubt in response to the growing Hispanic population in the US, the Fluid Milk Board partnered with Venezuelan fashion designer Carolina Herrera to focus on the theme of “bienestar” (or wellness) (USDA, 2011:21).

It is important to note, though, that there was also a heavy emphasis on mothers within the Hispanic community. This emphasis is important because it relates to the final, and most prominent marketing target: teens and younger children. The emphasis on children and teens is clearly the most important audience for the Fluid Milk Board. The function of the emphasis on mothers in the first two target groups, as stated by the USDA, is to reinforce “the ability for a mom to act as a role model milk drinker for her kids” (USDA, 2011:19).

- **The 3-A-Day campaign**

“3-A-Day” of Dairy for Stronger Bones (“3-A-Day”) marketing and nutrition education campaign was officially launched on March 3, 2003, and continued in 2004. The program objectives were to increase total consumption of dairy products and reinforce dairy as the leading source of calcium by providing simple guidance about dairy food selections. The development of the program was a joint dairy industry effort led by DMI. A key component of the 3-A-Day program is the logo, which appears on packages and labels of milk, cheese, and yogurt products containing 20 percent or more of the daily value of calcium (USDA, 2010:5).

### **3.3.4 Generic promotion of dairy in South Africa**

The South African dairy, in line with the consumer education project has adopted invested in generic marketing. The present section the motives as well as the content of such initiatives.

#### ***3.3.4.1 The South African dairy situation***

The South African dairy generated revenues of R17.2 billion in 2007 and during December 2011 this figure reached over R23 billion. Over the years the number of milk producers in South Africa has decreased: from 7 077 in 1997 to 2 627 in 2011. However, over the past five years the volume of milk produced in South Africa has also increased from 2.47 billion litres in 2007 to 2.62 billion litres in 2011. Between 1983/84 and 1995/96, South Africa's per capita consumption of milk declined by 39%. This represents a negative growth rate of 3.6% per year. This decline took place despite the fact that the real producer price of fresh milk in 1993 was on average only 66% of the 1970 price (Institute for Future Research 1996; Nieuwoudt 1998). Figure 3.6 shows the per capita consumption of dairy products in South Africa from 1988 to 1999.

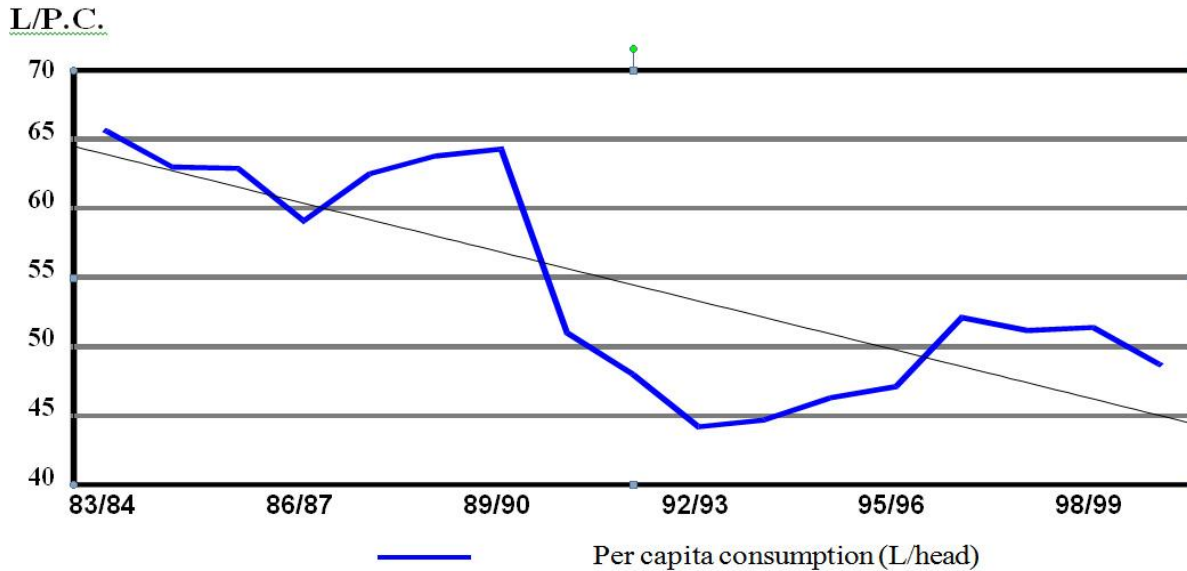


Figure 3.6: Per capita consumption of dairy products in South Africa

Source: MPO 2001

The figure shows that per capita consumption of milk and milk products in South Africa is very low, and this could be due to the fact that the emotional and functional benefits of milk consumption are not fully understood by consumers.

The consumption of concentrated dairy products has also declined since 1989. The per capita consumption of total dairy products (expressed in milk equivalent) has a long-term declining tendency. International opinion has it that promoting the basic health attributes of dairy products, be it brand promotion or consumer education, will improve their consumption.

The educational programmes, conducted by the former Dairy Board proved successful. Demand for milk has continued to grow. As a result, between 2008 and 2011 the volume of milk imported increased from 31 000 tonnes to 42 000 tonnes (Nyanzunda, 2012:1).

The Consumer Education Project (CEP) is an initiative of Milk SA that was launched to communicate health and nutritional messages regarding dairy products. It was guided by the outcome of a comprehensive market survey, which was conducted to obtain a better understanding of the views and behaviour of South African consumers in respect of dairy products. (The Dairy Mail, 2009:101). The outcome of the survey informed that although dairy is consumed by most South Africans, consumers have misconceptions and a lack of knowledge on the role of dairy in the diet (Milk SA, 2010).

#### ***3.3.4.2 The generic dairy campaigns in South Africa***

The campaign had two different but complementary targets, namely general and specialised communication.

- **General communication**

This type of communication was directed at consumers based on the assumption that they had the ability to exert considerable influence on businesses. By imparting profits of businesses that harm the environmental campaigns can bring positive change. The best consumer campaign activity is education, meaning enabling individuals, corporations, public buyers and investors to make informed choices.

There are a number of activities in a consumer-oriented campaign, but almost all focus on raising awareness of consumers. The media can be used through press releases and public services announcements. A combination of sound scientific information and a good understanding of consumer behaviour anchored the project. It conveyed messages that could not adequately be communicated through conventional branded advertising.

The general communication included messages that were of a general nature regarding the health and nutritional benefits of dairy products and were aimed at consumers who



were reached through a variety of media options such as print, radio and television. The communication campaign was centered on core messages designed to help communicate the benefits of dairy to the market. Consumers that were targeted were from the Living Standard Measures 6 to 10. The messages that were communicated were:

- Growth: Protein and calcium help you grow
- Muscles: Dairy builds muscle through proteins and amino acid
- Bones: Dairy strengthens your bones and teeth
- Weight loss: Dairy is part of a low fat diet
- Fat content: Dairy has less fat than you think
- Nutrient rich: Dairy is nutrient rich as it contains proteins, vitamins and minerals, especially calcium
- 3-A-Day

As part of the general communication, a schools educational programme was developed within the framework of the *Food Based Dietary Guidelines* and the National Schools Curriculum. The target was to reach learners in grades 4 to 7.

- **Specialised communication**

The second target group of the communication campaign was the health professionals namely, doctors, nurses, dieticians and nutritionists. The aim of the campaign was to make use of various information sources such as scientific literature, recent results on dairy nutrition and health, as well as food composition data.

Certain channels were selected for this target group. These included health journals and leaflets, retail and provincial clinics, universities and presentations and posters at conferences. The co-operation with universities was aimed at reaching fourth-year dietetic students to empower them with information (Milk SA, 2010).

#### **3.3.4.3 Literature review on marketing campaigns in the South African dairy industry**

A number of research findings have been published on the South African dairy industry in the public domain, with the majority focusing on different aspects of the value chain.

Three examples of recent studies are briefly discussed. Maree (2007) reported on the development of technical, economic and financial benchmarks as a management tool for intensive milk producers on the Highveld of South Africa. Bandama (2011) dealt with concentrated market power and information asymmetry within the South African dairy supply chain. Mkhabela (2011) worked on an econometric analysis of the economic and environmental efficiency of dairy farms in the KwaZulu-Natal Midlands.

In terms of milk marketing, Smith (1999) conducted research entitled “A study of milk marketing by selected dairy companies in Port Elizabeth”. This study by Smith investigated the decline in milk consumption in the Port Elizabeth area and how the marketing mix influences marketing decisions. This research only dealt with particular dairy companies’ marketing activities and excluded generic marketing.

In addition to published research studies, it is important to reflect that numerous research studies are undertaken by the dairy processing, buyer, retailer and supplier segments in the industry. The competitive nature of the industry does however largely discourage publically published findings of these studies.

However, the industry mandate to examine the underlying reasons of South African dairy consumers for consuming and using dairy products justifies the current research. There is no published research reporting on generic dairy marketing of dairy in South Africa. The current research will make a positive contribution to the launch of future advertising campaigns, especially in the context of the Consumer Education Project. The current research behind this dissertation fills a long-felt gap.

### **3.4 OVERVIEW OF THE SOUTH AFRICAN DAIRY INDUSTRY**

As mentioned in Chapter 1, section 1.1, the South African dairy industry has undergone many changes. According to Maree (2007:12), not only has the market environment changed from a highly regulated one to a free-market system, but there has also been a decline in the number of producers, leading to a sharp increase in the size of farm enterprises, shifts in the important production regions and huge improvements in technology that have influenced dairy production.

In this section, the dairy industry structure, the nature of competition, research as well as exports and imports will be covered.

#### **3.4.1 The dairy processing industry**

An oligopoly is a market condition in which that market is dominated by a small number of sellers and buyers and as a result, they greatly influence price and other market factors. *The Food Cost Review (2006)*, published by the National Agricultural Marketing Council (NAMC) and the Department of Agriculture, comes at a time when the Competition Commission is investigating anti-competitive behaviour of major dairy companies.

Various estimates of the oligopolistic nature of the South African dairy industry are provided. NAMC's Johann Kristen stated that the four dominant processors were Clover, Parmalat, DairyBelle and Woodlands Dairy (Dairy Mail, 2007). Furthermore, a South African government report has described the milk processing market as an oligopoly, saying that four dairy companies process between 74% and 78% of all delivered milk (Dairy Mail, 2007).

According to Botha and Van Schalkwyk (2006), there are four dominant food retailers in South Africa: Pick' n Pay, Shoprite/Checkers, Spar and Woolworths who hold the majority market share in South Africa. Together they have a market share of 94% and since they are the link between the consumer and the product, they will have a substantial influence on the price of products.

Cutts and Kirsten (2006:6) also noted that the country's milk output is sold in an oligopolistic market where four of the largest processors account for roughly 65% of the total commercial milk delivered. Bandama (2011:41) notes that this is a decrease compared to the 74% and 78% levels in the year 2000.

Over the past few years, the South African Competition Commission investigated claims of price fixing in raw and retail milk prices among the major milk buyers/processors in South Africa. In some cases price information was exchanged and deals were made to sell surplus milk to other companies, rather than to consumers. "Excess" milk was removed from the market and producers were compelled to sell all their milk to specific buyers (Competition Commission, 2006). The same also occurred in the United Kingdom, where dairy and supermarket groups were heavily fined because of price-fixing in respect of milk, butter and cheese. The cost to consumers was £270 million as a result of this (MPO 2008). Exhibit 3.1 illustrates the balance of power in the dairy market.

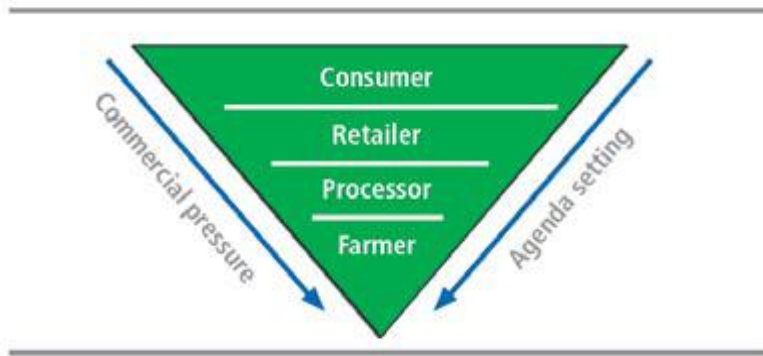


Exhibit 3.1: Balance of power in the market

Source: EFFP, 2004.

Exhibit 3.1 shows that farmers or producers are at the bottom of the ranking while consumers are at the top. Consumers are the most powerful when determining market trends in terms of quality, prices and quantity. Processors and lastly farmers (producers) have to react to these trends via retailers.

Many retailers have minimal direct contact with producers, as they mostly communicate via processors, packers and intermediary marketing organisations. However, indirectly, they have a considerable influence on the producer through specification of product and production standards. In turn, these trends result in producers being vulnerable to commercial pressure (EFFP, 2004).

### 3.4.2 The industry structure

According to the Department of Agriculture, Forestry and Fisheries (2011:6), the South African dairy market is divided into 60% liquid and 40% concentrated products. Pasteurised liquid milk and UHT milk are the major liquid products, while hard and semi-hard cheese constitutes the major concentrated product. Different types in each category are shown in Figures 3.7 and 3.8.

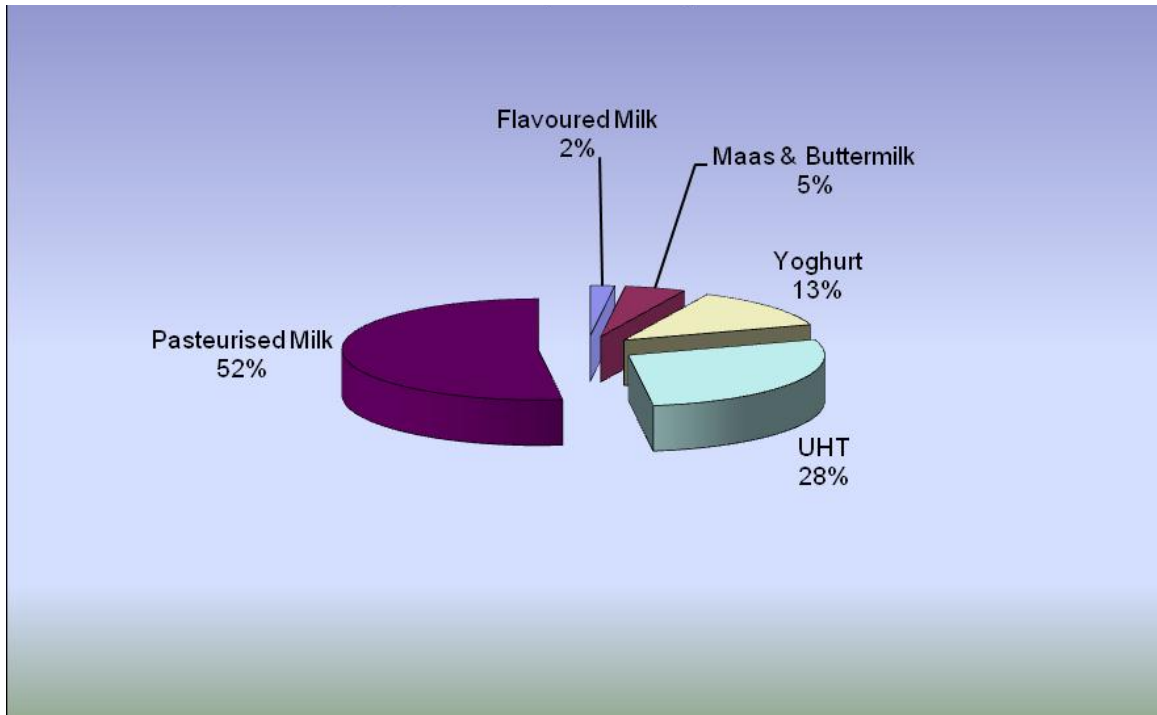


Figure 3.7: Liquid milk products

Source: DAFF, MPO 2011

Figure 3.7 shows that pasteurised milk has the highest percentage namely 52% followed by UHT (long life) with 28 %; yoghurt with 13 %; and mass and buttermilk with 5 percent. Flavoured milk constituted the lowest market share of liquid milk with a 2% share.

The configuration of concentrated milk is depicted in Figure 3.8.

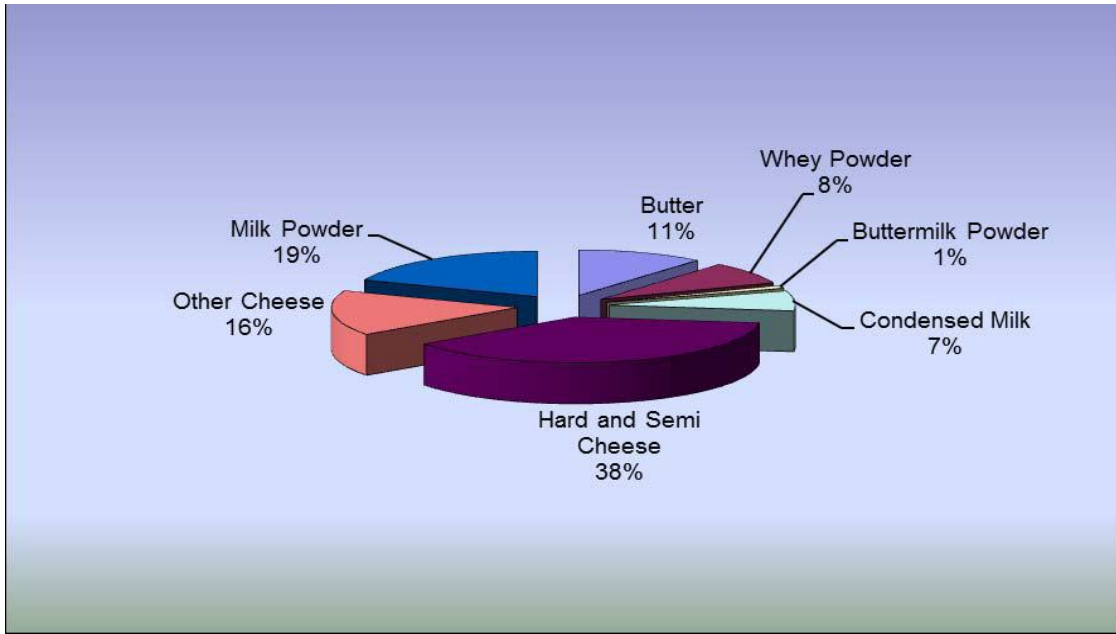


Figure 3.8: Concentrated milk products

Source: DAFF, MPO 2011

Figure 3.8 shows that concentrated milk products consist of 38% of hard and semi-hard cheese followed by milk powder with a percentage share of 19, and other cheese with 16%. Concentrated milk and buttermilk powder comprised the lowest shares of concentrated milk products with 7% and 1% respectively.

**3.4.2.1 The primary industry**

The South African primary dairy industry comprises the milk producers. Milk is produced throughout South Africa, with farms located in the eastern and northern Free State, North West, the KwaZulu-Natal Midlands, the Eastern and Western Cape, Gauteng and the southern parts of Mpumalanga. One of the biggest issues at present is the decrease in the number of milk producers. Section 3.4.2.1 deals with milk production areas and cyclicity in milk production.

- **Milk production areas.**

According to DAFF (2011), the coastal areas are more suitable for milk production due to mild temperatures as well as good rainfall ensuring good quality natural and artificial pastures. The inland production areas are generally climatically less favourable for milk production. Dairy farming in these areas necessitate intensive and high cost feedlot production systems.

Figure 3.9 depicts the annual mean precipitation within the production areas.

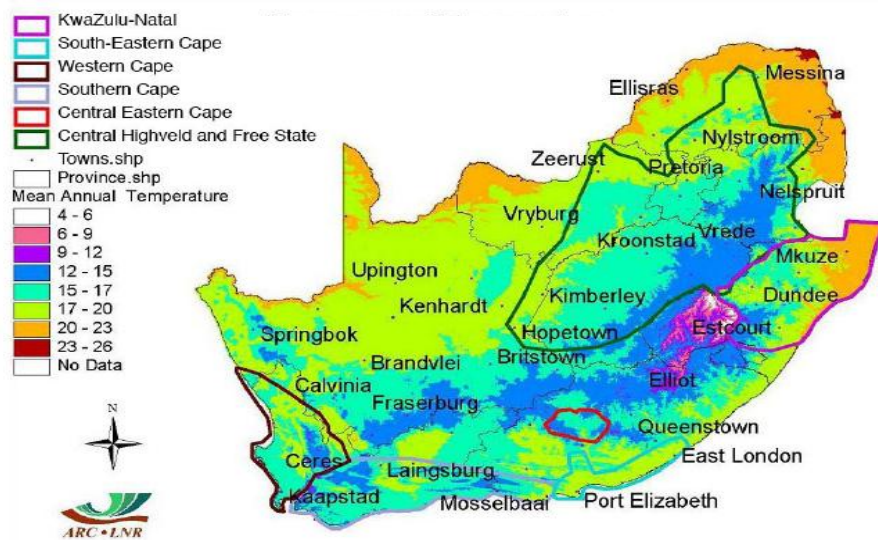


Figure 3.9: Mean and annual temperature

Source: Maree (2007), Adapted from Dairy Development Initiative, Samfed, 2000.

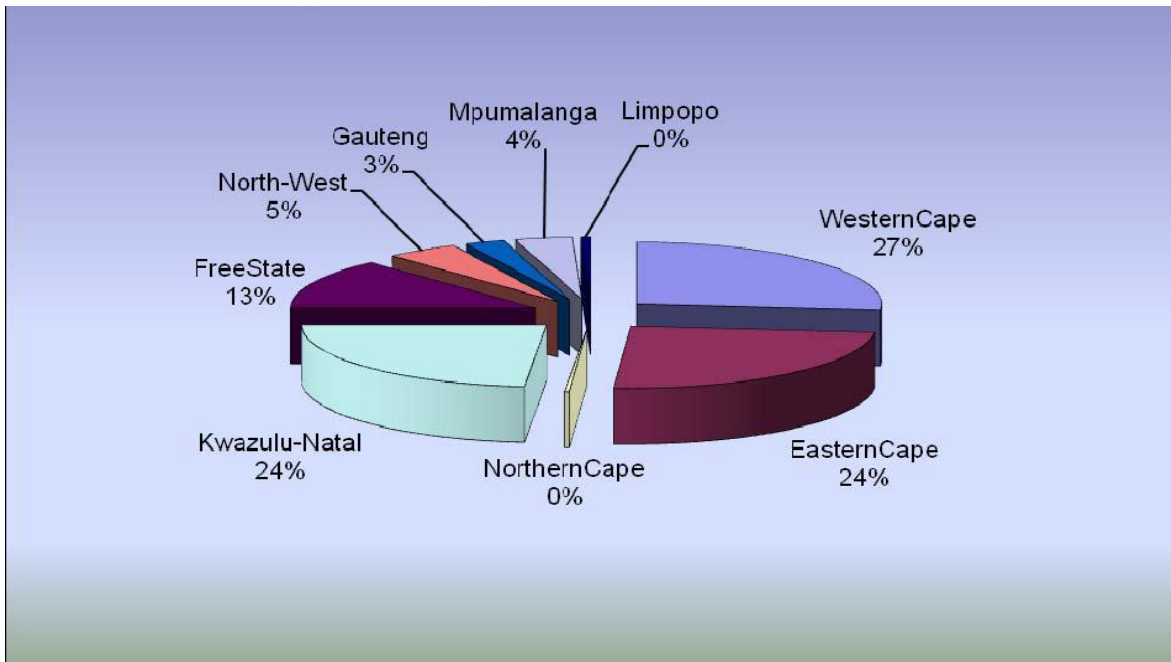
Figure 3.10 shows the percentage contribution of provinces to milk production in South Africa in 2010.

Only about 15 million hectares, or 12% of the land area in South Africa, is under cultivation, and only about 10% of this is under irrigation. Furthermore, the climate is unstable. Generally, the best rainfall is in the Western Cape surrounding Cape Town, along the coast of KwaZulu-Natal, in the Eastern Cape and in Mpumalanga. The rest of



the country is relatively dry, and much of the arid Northern Cape is suitable only for grazing sheep (McKenzie & Vink, 1989; Vink, 2003) as stated in Mkhabela, Piesse, Thirtle and Vink (2010).

Figure 3.10: Milk production per province in 2010



Source: MPO 2011

The Western Cape contributed 27% of the total milk produced in South Africa followed by the Eastern Cape and KwaZulu–Natal with 24% each. The Free State contributed 13%, the North West 5%; Mpumalanga 4%, Gauteng 3%, Northern Cape and Limpopo contributed less than 1 percent.

The number of milk producers in South Africa has drastically decreased, as it is shown in Table 3.1.

Table 3.1: Number of milk producers per province, 1997-2011

Province	Number of producers per province						
	Dec'97	Jan'06	Jan'07	Jan'08	Jan'09	Jan'11	Jun'11
Western Cape	1 577	878	827	815	795	683	673
Eastern Cape	717	422	420	407	387	314	315
Northern Cape	133	39	37	34	37	28	27
KwaZulu- Natal	648	402	385	373	373	323	331
Free State	1 204	1 067	987	919	884	601	571
North West	1 502	649	596	549	540	386	379
Gauteng	352	275	245	228	217	127	126
Mpumalanga	866	407	357	302	286	201	181
Limpopo	74	45	45	38	32	23	24
<b>TOTAL</b>	<b>7 077</b>	<b>4 184</b>	<b>3 899</b>	<b>3 665</b>	<b>3 551</b>	<b>2 686</b>	<b>2 627</b>

**Source: MPO Statistics, 2011**

Table 3.1 shows that the number of milk producers decreased from 3 899 in January 2007 to 2 627 in June 2011. Since 1997, the number of producers decreased by 63%, with the most being in Kwa Zulu-Natal (57%) while in the Free State it decreased by 47% (Coetzee, 2011).

- ***Cyclicity***

There are two basic systems of milk production, the most common being seasonal milk production where cows are mated to calve and lactate during the period of peak pasture availability (Hogan, Shaw & Berry, 2005:2).

In South Africa, the milk industry is characterised by milk surpluses or shortages driven by market dynamics and natural conditions. Seasonal trends remain similar both locally

and internationally and are driven by the calving cycle. Demand remains relatively constant over the year with increases over the holiday periods in December and Easter. The seasonality of milk production combined with an oligopolistic market means that farmers are generally price takers for produce and experience difficulties in negotiating a good price for their product (Nyanzunda, 2012).

Historically, a trend of a milk surplus occurs approximately every four years and has a negative impact on pricing in the milk and dairy product market. In 2009, for example, the local milk surplus was exaggerated by the global recession, a global milk surplus and a milk surplus locally. Thus, the cyclical nature of the industry means that participants have to try to balance milk supply to meet demand throughout the year.

Milk is also produced on a year-round basis. Calving of cows is spread throughout the year to enable the herd's total milk production to be maintained throughout the year. Year-round calving has traditionally been used to provide a constant supply of drinking milk, especially in regions where there is less seasonal variation in pasture production. Year-round production is the dominant dairying system in Australia, especially, in Queensland, Western Australia and New South Wales, particularly in the northern region. (Hogan, Shaw & Berry, 2005: 3).

Not all the provinces in South Africa contribute equally to milk production output due to less climatically favourable situation in some of them. However, the drastic decrease in numbers of milk producers including producer-distributors over the years is a major concern for the whole industry.

### **3.4.2.2 The secondary industry**

The South African secondary dairy industry consists of a few larger processors of dairy products who operate nationally, a large number of smaller processors who operate in

specific areas and a number of producers who sell their produce directly to retailers and consumers, also referred to as producer-distributors (PDs).

According to Nyanzunda (2012:3), the secondary industry consists of 155 milk buyers and 138 producer-distributors (PDs). Table 3.2 provides the number of PDs and milk buyers.

Table 3.2: Number of PDs and milk buyers.

<b>Province</b>	<b>Number of PD's</b>	<b>Number of Milk buyers</b>
Western Cape	31	36
Eastern Cape	19	11
Northern Cape	11	4
Kwa-Zulu Natal	14	20
Free State	18	13
North West	9	15
Gauteng	22	49
Mpumalanga	11	13
Limpopo	12	1
<b>Total</b>	<b>138</b>	<b>155</b>

Source: MPO Lactodata, 2011.

As mentioned previously, there are only four major national milk buyers in South Africa, who control the majority (over 65%) of milk in South Africa. According to a NAMC report (2001:36), no uniform milk purchasing system is applied. The major buyers use comparative base-pricing purchasing systems (price is determined by milk solids composition, volume premiums and milk quality), while smaller processors tend to purchase milk solely on a volume basis.

Smaller milk buyers and producer-distributors play a large role in the fresh milk sector, while the major milk processors still play the most important role in the formal sector, including fresh milk and milk products, such as cheese, yoghurt and milk powder.

According to the NAMC report (2001), a PD is defined as a producer who processes and sells only the milk produced on its farm. Such producers therefore do not buy any milk from other producers. With the increase in the number of PDs, it is evident that there is a trend towards on-farm value-adding and the utilisation of niche markets.

The next section looks at major milk producing regions and the production conditions prevailing in those countries. It also explores the variation in milk and dairy products import and export of South Africa. The export destinations form part of this section.

### **3.4.3 Export and import of dairy products**

Internationally the main milk producing regions are as follows: European Union 31%, New Zealand 30%, Australia 12%, the USA 5% while the other regions in the world make up the balance. Milk production in South Africa makes a very small contribution to the world production but in terms of the values of agricultural production in South Africa, it is the fifth largest agricultural industry in the country (DAFF 2011:8-9).

Favourable seasonal conditions have prevailed in most major dairy producing regions during 2011 and early 2012. This situation, combined with reasonable farm margins has seen milk output and export availability increase significantly. European Union milk output was 2.1 percent ahead in 2011, as favourable seasonal conditions have combined with positive price indications. A mild winter has set the EU up for a good spring (Dairy Australia, 2012).

In the US, milk production increased by 1.8 percent in 2011, with herd numbers stabilising and good seasonal conditions prevailing. Production growth strengthened in

2012, with the United States Department of Agriculture forecasting an increase in output of almost 2.5 percent. New Zealand milk production finished the 2011/12 season between 8 and 10 percent higher than last year — well above initial market expectations.

Growth in the Australian economy slowed in 2011 but is expected to strengthen in the short to medium term as monetary policy moderates. The multi-speed economy is apparent in business conditions, with the mining sector continuing to boom, while domestically-focused and other exporting industries are struggling. Unemployment remains low, but concerns over cost of living increases and general global economic uncertainty are keeping consumers vigilant about their spending. In this environment the foodservice sector remains under pressure, as consumers look to home-prepared meals to cut food spending. Figure 3.11 gives an indication of South Africa’s import and export levels.



Figure 3.11: Exports and Imports of milk and dairy products

Source: DAFF (2011)

Figure 3.11 shows that South Africa became a net exporter of milk and dairy products during 2001, 2002, 2004 and 2008 to 2010 and became a net importer during 2003 and 2005 to 2007. The increase in exports in 2008 to 2010 was probably due to the attractive international price of milk.

Milk is produced far more cheaply in New Zealand and certain parts of the world than in South Africa. Imported milk from the EU and US is cheaper than milk produced in South Africa due to subsidies in those countries. Dairy companies in those countries are paid a guaranteed floor price for designated quantities of dairy products. Dairy companies in the EU and US are given a subsidy to bridge the gap between the supported domestic price and world market price. In the EU dairy farmers are paid subsidies for the use of certain inputs. According to the Department of Agriculture, exports of milk and dairy products were the lowest in 2001 and 2003 to 2007 before increasing substantially in 2008. The decrease experienced in 2010 was due to low production in the local market. Figure 3.12 shows Countries of destination of milk and dairy products exports during 2010.

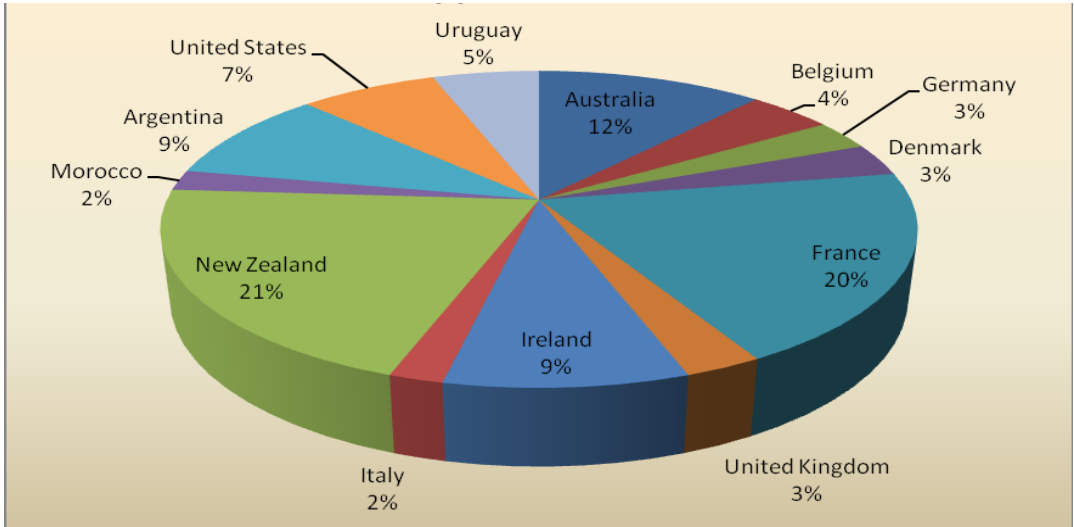


Figure 3.12: Export destinations for South Africa milk and dairy products in 2010

Source: DAFF (2011)

Figure 3.12 shows that New Zealand, France, Australia, Ireland and Argentina are the major export destinations of milk and dairy products exported from South Africa in 2010. Together they accounted for approximately 70 percent of the country's production.

Milk and dairy production in South Africa has shown a variation since 2001. South Africa became a net exporter of milk and dairy products during 2001, 2002, 2004 and 2008 to 2010 and became a net importer during 2003 and 2005 to 2007.

As many other industries, the dairy industry is influenced by factors that have an impact on its attractiveness. These competitive forces are depicted and explained in section 3.4.4.

#### **3.4.4 Competition in the South African dairy industry**

Different industries have different structures, which result in very different rules of the game when it comes to competitive behaviour. Porter (2000:6) explains the competitive structure and critical rules of the game, which is reflected in Exhibit 3.2.



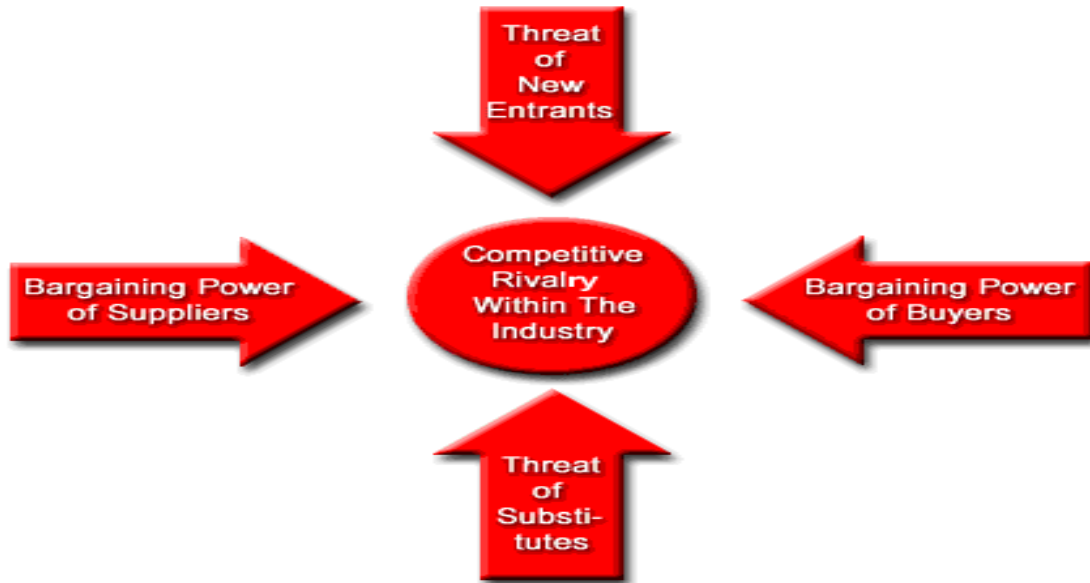


Exhibit 3.2: Porter's competitive forces applied to the dairy industry

Source: Adapted from Nyanzunda, 2012

As stated earlier, only four players dominate the South African dairy industry and holding over 65% of the total market. The industry is not easy to penetrate although there are a number of smaller contributors operating at local or provincial levels.

In this section, the barriers to entry and the power dynamics within the dairy supply chains, as source of competition will be addressed in more detail.

#### **3.4.4.1 Barriers to entry**

According to Lamb, Hair, McDaniel, Boshoff, Terblanche, Elliot and Klopper (2010:121), a segment's attractiveness varies with the height of its entry and exit barriers. The most attractive segment is one in which entry barriers are high and exit barriers are low.

Nyanzunda (2012) lists the following barriers to entry in the South African dairy industry. Capital expenditure, as one of the barriers is compounded by the large herd numbers required to justify the capital expenditure. The costs of fixed and working capital are very high. According to Coetzee (2012) profitability is a problem in South Africa. “Production costs are on the rise as a result of higher grain prices. The feed price ratio in this country currently stands below 1.2, which, without mincing words, puts it at a crisis level. Milk production is becoming increasingly unprofitable, and the possibility of a significant milk price increase cannot be dismissed” (Coetzee 2012).

Skills are very critical for the success in the dairy industry. Therefore dairy farmers have developed their skills over many years and it takes a long time to become a skilled dairy farmer. Together with skills, technology has also developed to such an extent that it requires high technological understanding.

Health requirements are one of the major barriers in the industry. In this regard a lot of attention has been paid to food safety risks and related hazards, as well as the impact of food consumption on health. The outbreak of mad cow disease in Britain and the dioxin scare in Belgium has led to the public being more aware about possible health risks. They now demand healthy, wholesome and safe products. The public is being more and more demanding for food to be produced with animal and environment-friendly production processes (UBISI, 2006).

#### **3.4.4.2 *Power Dynamics within the South African dairy supply chains***

Market power can be defined from the perspective of both buying and selling power, both of which may be present within a single supply chain, as is often the case. Processors and retailers within the dairy supply chain are both buyers and sellers. Within the supply chain, vertical and horizontal competition and market power are closely intertwined and reinforce one another. As a result, a firm’s market power is a joint function of its horizontal and vertical influence and the capabilities of its internal

departments, all of which must be compared to those of rival firms in the same category (relevant market) and to the category average (Steiner, 2008:252).

Buyer power in the context of food retailing is considered to arise from the ability of leading retail firms to obtain from suppliers more favourable terms than those available to other buyers, or to be expected under normal competitive conditions (Dobson, Clarke, Davies & Waterson 2001). They also refer to the OECD Secretariat who provides a far more specific definition:

A retailer is defined to have buyer power if, in relation to at least one supplier, it can credibly threaten a long term opportunity cost (i.e. harmful or withheld benefit) which, were the threat carried out, would be significantly disproportionate to any relating long term opportunity costs to itself.

Studies in the USA, UK and Australia have shown that supermarkets have a tendency to use their oligopolistic power to raise retail prices while at the same time using their oligopsonistic power unduly to pay lower prices to suppliers. The influence of supermarket growth on the supply chain of perishable products is particularly interesting. The producers of perishable products have traditionally been small, unconcentrated and uncoordinated relative to the buyers. Furthermore, due to the high perishability of these products, their farm-level supply is very price inelastic, thus reducing the producers' bargaining power.

During the period of major reforms in the domestic and international markets, the food distribution system in South Africa also underwent major changes. The major supermarket chains' market share increased drastically, while the share of green grocers and small retail outlets dwindled. With retail supermarket chains now controlling an ever-increasing market share of the food retail sector, farmers and food processors are becoming more concerned with the competitiveness of the food marketing chain (NAMC, 2007). Table 3.3 illustrates the market share of the larger supermarkets in South Africa.

Table 3.3: Market share (%) by supermarkets in South Africa

<b>Supermarket</b>	<b>Market Share (%) (1999)</b>	<b>Market Share (%) (2004)</b>	<b>Market Share (%) (2005)</b>
Shoprite/Checkers	31.0	26.3	26.2
Pick 'n Pay	21.9	24.7	25.3
Spar	15	15.2	15.3
Woolworths	10.4	10.4	10.1
Other	21.7	23.4	23.1

Source: Adapted from Bandama (2011).

With the huge market power of these supermarkets as it is shown in Table 3.3, and since they are the link between the consumer and the product, they have a substantial influence on the price of the product (Botha & Van Schalkwyk, 2006). According to NAMC (2003:217), as stated in Bandama (2011:44), most dairy products are distributed through hypermarkets and supermarkets, which negotiate prices on a central and/or regional basis. This puts retailers in a stronger bargaining position. Although large food processors can use popular and heavily promoted brands to improve their terms of trade, retailers have responded with “no name” or house brands, which they use to pressure large processors to reduce prices. Recent data on food consumption patterns suggests that “no name” and house brands are the fastest growing branded processed food products (Mather, 2005:8).

According to the NAMC report (2002) a number of factors led to the expansion of supermarket chains in South Africa, including the increasing need for “one stop shops” or convenience stores by time-constrained consumers, particularly as more and more women entered the workplace. The development of shopping malls and their increase in popularity further anchored the competitive advantage of supermarkets. Supermarkets

are usually core tenants in shopping malls, and hence have better bargaining power when negotiating favourable rent options, thus further increasing their ability to grow.

#### **3.4.5 Research and development in the South African dairy industry**

Milk SA has a statutory role of conducting research and development in the industry. Its main role is to arrange workshops with the Agricultural Research Council, DAFF and provincial departments of Agriculture in order to establish their dairy research goals and budget allocations for the medium term, and provisions that could be made towards the research requirements of the dairy industry.

Organisations also have their research and development units that look at various aspects of research such as farming systems, product development and consumer behaviour in the industry. International companies such as Parmalat, Danone, Unilever and Nestle also give South African dairy researchers access to current research and development data.

### **3.5 CHAPTER SUMMARY**

Chapter 3 provided information about the large disparity between dairy consumption and growth levels among developed and developing countries. It also distinguished between generic marketing and commercial brand advertising. Furthermore, the chapter provided extensive literature about generic dairy campaigns initiated in Australia, the United Kingdom, and the USA and introduced the Consumer Education Project initiated by the South African dairy industry.

The literature review on the South African dairy industry reveals the oligopolistic nature of the South African dairy, with few processors and distributors. In terms of the

structure of the industry, the coastal areas are more suitable for milk production due to mild temperatures as well as good rainfall ensuring good quality natural and artificial pastures. One of the major concerns of the dairy industry is the drastic decrease in milk producers since its deregulation. The chapter concluded that little effort has been put on research on generic campaigns. In fact, there is no published research reporting on generic dairy marketing in South Africa.

Chapter 4 will deal with the research design and the methodology employed in this research.

# **CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY**

## **4.1 INTRODUCTION**

The objective of this chapter is to describe the research methodology used for the collection and analysis of the data for this study. To achieve this objective, the chapter provides an overview of the research design, research methods and finally, the statistical techniques used for the analysis of the data. More specifically, it will deal with the research approach, the sampling plan design, the research instruments as well as the data collection procedures.

The main sections of this chapter are depicted in Figure 4.1.

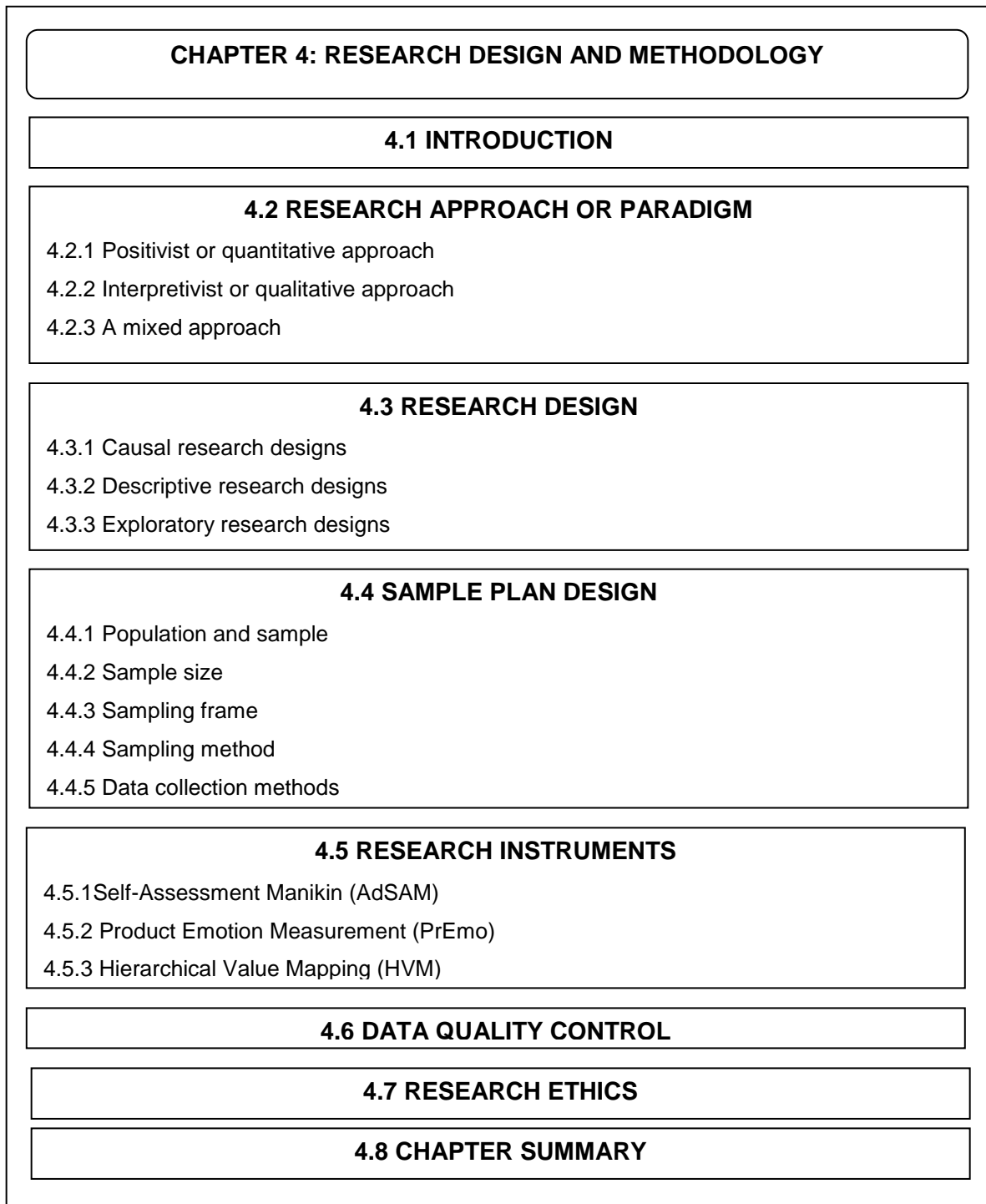


Figure 4.1: Layout of Chapter 4



## 4.2 RESEARCH APPROACH OR PARADIGM

Khun (1970) argues that a paradigm is a model for conducting a normal study and can be defined as a set of rules and regulations that clarifies boundaries for the researcher regarding what should be researched and how the research should be conducted. Paradigms also determine parameters for success in terms of what would be regarded as valid research solutions.

Generally, two main research paradigms that are used by marketing researchers are considered. These are the positivist paradigm and the interpretivist paradigm (Malhotra & Birks 2006:138). Mixed methods research or mixed research is becoming increasingly articulated, attached to research practice, and recognised as the third major research approach or research paradigm, along with qualitative and quantitative research (Johnson, Onwuegbuzie & Turner 2007:112).

In Exhibit 4.1, Malhotra and Birks (2006:138) present alternative concepts that may be used to describe these paradigms.

<b>Positivist</b>	<b>Interpretivist</b>
Quantitative	Qualitative
Objectivist	Subjectivist
Scientific	Humanistic
Experimentalist	Phenomenological
Traditionalist	Revolutionist

Exhibit 4.1: Alternative paradigm terminology

**Source:** Adapted from Malhotra and Birks (2006:138).

As highlighted in Exhibit 4.1, there are two paradigms used to guide research, and authors incorporate different paradigmatic schemas to conceptualise and classify their

research (Denzin & Lincoln 2000) as stated in Ponterotto (2005). Of the numerous classification schemes introduced in the literature, this research finds the schema of Malhotra and Birks (2006) to be very concise and manageable. Exhibit 4.1 shows that the positivist approach is also referred to as 'quantitative' research while "the interpretivist" approach is also referred to as 'qualitative'. In this study these two terms will be used interchangeably.

Sections 4.2.1, 4.2.2 and 4.2.3 introduce the three research approaches and conclude the most approach for this research.

#### **4.2.1 Positivist or quantitative approach**

A central belief of a positivist position is the view that the study of consumers and marketing phenomena should be 'scientific' (Malhotra & Birks 2006:136). Marketing researchers of this persuasion adopt a framework for investigation similar to that of natural scientists.

Ragin (1989:81) comments that quantitative research is a variable-oriented approach, which is theory-centred. In this approach, generality is given precedence over complexity as the researchers are interested in testing propositions derived from general theories. Kalaian (2008:729), furthermore states that quantitative research is a deductive theory-based research process that focuses primarily on testing theories and research hypotheses. This type of research investigates differences and relationships using numeric data and statistical methods to make specific conclusions about the phenomena.

Ragin (1989:96) comments that a quantitative research study begins by specifying the hypothesis to be tested and then delineating the widest possible population of relevant observations. Researchers examine the relationship between variables and construe a

model of causation. By studying correlations between variables, it is possible to derive empirical generalisations by using statistical analyses of correlations between variables.

#### **4.2.2 Interpretivist or qualitative approach**

The interpretivist researcher sets out to test hypotheses and to explore the nature and interrelationships of marketing phenomena. The focus of investigation is a detailed examination of a small number of cases rather than a large sample (Malhotra & Birks 2006:153). It is an “umbrella” phrase covering an array of interpretive techniques that seek to describe, decode, translate, and otherwise come to terms with the meaning of naturally occurring phenomena in the social world.

Berg (2004:46) indicates that qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols and description of things. Kalaian (2008:727) comments that qualitative research is inductive and context-specific research that focuses on observing and describing a specific phenomenon, behaviour, opinions, and events that exist by way of data collected through observations, documents, physical artefacts, interviews, and focus groups to generate hypotheses and theories.

Qualitative research is research that addresses business objectives through techniques that allow the researcher to provide elaborate interpretations of market phenomena without depending on numerical measurement. Its focus is on discovering true inner meanings and new insights (Zikmund et al 2010:133). Qualitative research, theoretically speaking, can be described as an approach rather than a particular design or a set of techniques (Welman, Kruger & Mitchell 2005:188).

### 4.2.3 The mixed research approach

Marketing researchers and decision-makers often take dogmatic positions in favour of either qualitative or quantitative research. The positions are founded upon which approach is perceived to give the most accurate understanding of consumers (Malhotra & Birks 2006:132). This is sometimes referred to as “paradigm wars”.

In the context of “paradigm wars”, Schwandt (2000:210), as stated in Johnson, Onwuegbuzie and Turner (2007:117) pointed out that “it is highly questionable whether such a distinction between qualitative inquiry and quantitative inquiry is any longer meaningful for helping us understand the purpose and means of human inquiry”. He also mentioned the following:

All research is interpretive, and we face a multiplicity of methods that are suitable for different kinds of understandings. So the traditional means of coming to grips with one’s identity as a researcher by aligning oneself with a particular set of methods (or being defined in one’s department as a student of “qualitative” or “quantitative” methods) is no longer very useful. If we are to go forward, we need to get rid of that distinction).

According to Johnson et al (2007:118), mixed research has had many titles, amongst others, blended research (Thomas, 2003), integrative research (Johnson & Onwuegbuzie, 2004), multimethod research (eg Hunter & Brewer, 2003; Morse, 2003), multiple methods or triangulated studies (Sandelowski, 2003), ethnographic residual analysis (Fry, Chantavanich, & Chantavanich, 1981), and mixed research (Johnson, 2006; Johnson and Christensen, 2004). An advantage of the broader term mixed research, as well as integrative research, is that it does not suggest a limitation of mixing to methods only.

Malhotra and Birks (2006:131) state that qualitative research may be used after or in conjunction with quantitative approaches where clarification of statistical findings is

needed. Migiro and Magangi (2011:3757) agree when they comment that mixed methods research encourages researchers to use multiple approaches to collecting and analysing data within a single study, recognising the limitations of using a single method.

Mixed research is primarily about recording, analysing and attempting to uncover the deeper meaning and significance of human behaviour and experience, including contradictory beliefs, behaviours and emotions. Researchers are interested in gaining a rich and complex understanding of people's experiences, for example, the feelings related to the consumption of milk, cheese, yoghurt and maas. The study also seeks to discover the feelings associated with the seven educational messages directed at consumers.

According to Creswell (2006:9) the basic premise of the mixed method is that the combination of quantitative and qualitative approaches provides a better understanding of research problems than either approach alone. Therefore, the value that mixed methods research adds, neither qualitative nor quantitative approaches can provide.

Mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research. The argument is that quantitative research is weak in understanding the context or setting in which people talk. Also, the voices of participants are not directly heard in quantitative research. Furthermore, quantitative researchers are in the background, and their own personal biases and interpretations are seldom discussed. Qualitative research compensates for these shortfalls. However, qualitative research is seen as deficient due to the personal interpretations made by the researcher, the ensuing bias created by this, and the difficulty in generalising findings to a large group because of the limited number of participants studied. Quantitative research, on the other hand, does not have these weaknesses.

Creswell (2006:9) also states that mixed methods research provides more comprehensive evidence for studying a research problem than either quantitative or

qualitative research alone. Researchers are at liberty to use all of the tools of data collection available rather than being restricted to the types of data collection typically associated with qualitative or quantitative research. Mixed methods research is “practical” in the sense that the researcher is free to use all methods possible to address a research problem. It is also “practical” as individuals tend to solve problems using both numbers and words, and they combine inductive and deductive thinking (Creswell, 2006:10).

This study employed a mixed research approach, meaning that it made use of both qualitative and quantitative approaches. Marketers have found that rather than being conflicting, these two research paradigms are more complementary in nature. Both quantitative and qualitative research are aimed at obtaining the views of consumers about the products and messages. Quantitative research was directed at determining such views, while the qualitative element of the research focused on clarifying and understanding them (Golafshani, 2003:600).

Three research approaches, namely positivist, interpretivist and the mixed approach have been explained. According to the specificity of the research, one or a combination of them may be selected. This study employed a mixed approach, meaning that it made use of both qualitative and quantitative approaches. The next section deals with the research design

### **4.3 RESEARCH DESIGN**

A research design can be regarded as the plan to be followed to realise the research objectives or hypotheses. It represents the master plan that specifies the methods and procedures for collecting and analysing the required information (Tustin, Ligthelm, Martins & Van Wyk 2005:82). It is a general plan or blue print used to guide the research process from formulation of the research questions and hypotheses to reporting of the research findings (Kalaian, 2008:725). A research design provides a

framework for the collection and analysis of data. A choice of a research design reflects decisions about the priority being given to a range of dimensions of the research process (Bryman & Bell 2007:40).

Bryman and Bell (2007:44) classify research designs into five different categories, namely, experimental design, cross-sectional or social survey design, longitudinal design, case study design and, finally, comparative design.

Determining the research design is a function of the research objectives and the specific information requirements (Hair, Bush & Ortinau 2003:41). Most research objectives can be achieved by using one of three types of designs namely exploratory, descriptive or causal research designs. This classification is confirmed by Tustin et al (2005:83) who provide a classification of the research designs with the different data collection methods, as it is depicted in Exhibit 4.2.

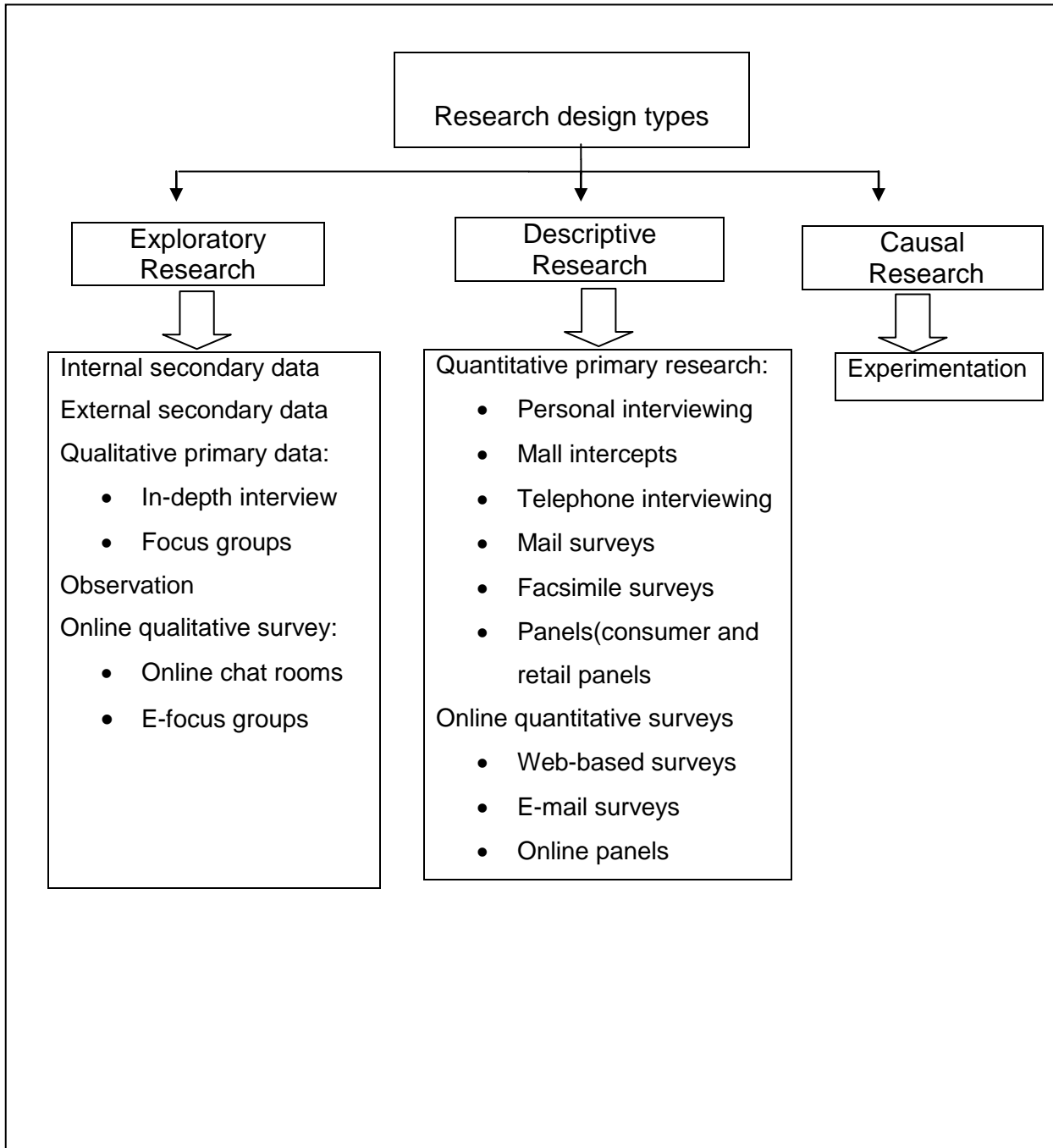


Exhibit 4.2: Classification of research approaches by data collection method

**Source:** Tustin et al (2005:83) Adapted from McDaniel and Gates (2001).



Exhibit 4.2 classifies research designs under three categories, namely exploratory, descriptive and causal research. Sections 4.3.1, 4.3.2 and 4.3.3 explain each of these research design categories in more detail.

#### **4.3.1 Causal research designs**

According to Tustin et al (2005:87) with causal designs, the researcher investigates whether one variable causes or determines the value of another variable. In other words, causal research seeks to identify cause-effect relationships.

The three types of research discussed here are often building blocks exploratory research builds the foundation for descriptive research, which usually establishes the basis for causal research. Thus, before causal studies are undertaken, researchers typically have a good understanding of the phenomena being studied.

(Zikmund et al 2010:57).

#### **4.3.2 Descriptive research designs**

According to Zikmund et al (2010:55) the major purpose of descriptive research is to describe characteristics of objects, people, groups, organisations or environments. In other words, descriptive research tries to “paint a picture” of a given situation by addressing who, what, when, where, and how questions. This type of research uses a set of scientific methods and procedures to collect raw data and create data structures that describe the existing characteristics of a defined population or market structure (Hair et al 2003:38).

Unlike exploratory research, descriptive studies are conducted after the researcher has gained a firm grasp of the situation being studied. This understanding, which may have

been developed in part from exploratory research, directs the study toward specific issues (Zikmund et al. 2010:55).

### **4.3.3 Exploratory research designs**

This type of research is used when searching for insight into the general nature of the problem, the possible decision alternatives and relevant variables that need to be considered. Typically there is little prior knowledge on which to build (Tustin et al. 2005:84). Exploratory research is conducted to clarify ambiguous situations or to discover potential business opportunities.

As the name implies, exploratory research is not intended to provide conclusive evidence from which to determine a particular course of action (Zikmund et al. 2010:54). Usually, exploratory research is the first step conducted with the expectation that additional research will be needed to provide more conclusive evidence.

For the purpose of this study, exploratory research and descriptive research have been applied. The associated data collection methods used will be addressed in the sections to follow.

## **4.4 SAMPLE PLAN DESIGN**

Although the sampling plan is outlined in the research design, the sampling stage is a distinct phase of the research process.

Sampling involves any procedure that draws conclusions based on measurements of a portion of the population. According to Tustin et al (2005:337), in marketing research a sample is defined as a subset of a population. Within this context a population is defined as the total group of people or entities from whom information is required.

The sample design in terms of the research population, the sampling method and the sample size are discussed from sections 4.4.1 to 4.4.4.

#### 4.4.1 Population and sample

The population can be defined as the total group of persons or universal collection of items to which the study relates (Steyn, Smit, Du Toit & Strasheim 2003:16). This step entails the specification of the survey population in terms of sample elements, sample units, and the extent and time for conducting the survey (Tustin et al. 2005:339). Table 4.1 reflects the percentage distribution of the various demographic variables included in this study.

Table 4.1: Sampling distribution

DEMOGRAPHIC	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 8	TOTAL
LSM 5	1	1	1	1	1	1	1	1	8
LSM 6	2	2	2	2	2	2	2	2	16
LSM 7	2	2	2	2	2	2	2	2	16
LSM 8	2	2	2	2	2	2	2	2	16
LSM 9	2	2	2	2	2	2	2	2	16
LSM 10	1	1	1	1	1	1	1	1	8
16-24	2	3	2	3	2	3	2	3	20
25-34	3	2	3	2	3	2	3	2	20
35-49	2	3	2	3	2	3	3	2	20
50+	3	2	3	2	3	2	3	2	20
Female	5	5	5	5	5	5	5	5	40
Male	5	5	5	5	5	5	5	5	40
Black	7	7	7	7	7	7	7	7	56
White/Coloured /Indians	3	3	3	3	3	3	3	3	24
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>81</b>

The sample elements consisted of 81 South African dairy consumers of different status and background (age, population group, gender). In terms of media, the sample members listen to all South African radio stations; they are viewers of SABC 1, 2, 3 and e-tv, and are exposed to outdoor advertising.

The research was conducted in the Gauteng region only. This region accounts for approximately a third of dairy consumption in South Africa and it is therefore important to firstly analyse dairy consumers from this region. Current insights suggest that the findings can be generalised to other regions. The research population is regarded as adequate given the purpose of the research study. Fieldwork was conducted during 2012. Table 4.1 described the sample used in this study.

#### **4.4.2 Sample size**

Since the research used a mixed method of research with a focus on qualitative research large samples are not a pre-requisite. The sampling method used was quota sampling. These considerations were used to determine the final sample size.

The first aspect to take into account is the degree of variability of the survey population. The more heterogeneous the population, the larger the sample should be. The second is the degree of precision as higher precision levels require a larger sample size. Finally, the extent of disaggregated analysis should be considered. For example, if researchers are only interested in an overall description of the level of preference of dairy consumers, a smaller sample size would be required. In contrast, intentions to cross-tabulate consumer preference levels will require larger samples.

#### **4.4.3 Sampling frame**

A sample frame is a list of population units/elements, also referred to as sample members, from which units/elements to be sampled are selected (McDaniel & Gates 2001:33). Tustin et al (2005:342) give examples of sample frames, including telephone directories, customer/client lists, research company databases, a list of e-mail addresses, online newsgroup postings, targeted website promotions, on-site intercepts or even geographic maps. For this study, no sample frame of numbers or names of dairy consumers was available.

#### **4.4.4 Sampling method**

The selection of an appropriate sampling method depends on various factors such as the objectives of the study, financial resources available, time constraints and the nature of the problem under investigation (McDaniel & Gates 2003:333).

Several alternative ways to take a sample are available (Zikmund et al. 2010:395). According to Tustin et al (2005:344), this step involves specifying whether a probability or non-probability approach will be applied in order to draw the sample, and exactly how the sample units or members will be selected.

The main alternative sampling plans may be grouped into two categories: probability techniques and non-probability techniques. Since the research did not use probability sampling, the discussion has been centered on non-probability sampling.

##### ***4.4.4.1 Non-probability sampling***

Bryman and Bell (2007:196) state that the term non-probability sampling is essentially an umbrella term to capture all forms of sampling that are not conducted according to principles of probability sampling.

Non-probability samples are instances in which the chances of selecting members from the population in the sample are unknown. This method relies on the discretion of the researcher. There are five non-probability sampling methods (Tustin et al 2005:344). These include convenience sampling, judgemental sampling, multiplicity (or snowballing) sampling, purposive sampling and quota sampling. The focus will be on quota sampling since it has been regarded as the most suitable to the current research. This method chooses sample members on the basis of satisfying some pre-specified criteria thought to apply to the population (Tustin et al 2005:347). The aim of quota sampling is to produce a sample that reflects a population in terms of the relative proportions of people in different categories, such as gender, ethnicity, age group, socio-economic group, and region of residence, as well as combinations of these categories (Bryman & Bell 2007:201).

The major advantages of quota sampling over probability sampling are speed of data collection, lower costs, and convenience. Carefully supervised data collection may provide a representative sample of the various subgroups within a population (Zikmund et al. 2010:398). This study used quota sampling.

#### ***4.4.4.2 The selected sampling method***

The overall aim of the study was to provide strategic communication insights into consumer reactions to four dairy products (milk, cheese, yoghurt, and maas) and the envisaged messages aiming to inform South African consumers of the health and nutritional benefits and advantages of milk and other dairy products, and to eliminate misperceptions in respect of the issue. Therefore, the research did not seek primarily to measure any relationship between specific variables. Hence, probability sampling would not have been a sound method for conducting this research. Rather, since it sought to have an in-depth insight or understanding of consumer behaviour, and due to no

sample frame being available, the current research was based on a non-probability sample. More specifically, quota sampling was selected.

#### **4.4.5 Data collection methods**

The data collection methods section informs on how the data used in this study have been gathered. The main methods employed are discussed.

##### ***4.4.5.1 In-depth interviews***

According to Zikmund et al. (2010:150), an in-depth interview is a one-to-one interview between a professional researcher and a research respondent. These interviews are much the same as a psychological, clinical interview, but with a different purpose. The researcher asks questions and follows up each answer with probes for additional elaboration.

Malhotra and Birks (2006:179) point out that an in-depth interview is an unstructured, direct, personal interview in which a single respondent is probed by an experienced interviewer to uncover underlying motivations, beliefs, attitudes and feelings on a topic.

Webb (1992:122), as stated in Tustin et al (2005:162), specifies the circumstances for the use of in-depth interviews. These particular situations include when a detailed analysis of rather complex situations such as attitudes, beliefs and feelings has to be conducted or when the issue under investigation is embarrassing, stressful or confidential. Other situations include when peer pressure may cause some respondents to conform to societal norms, whereas in real life they would not, or when the interviewer needs a progressive set of images, such as buying decisions with regard to overseas holidays. Finally, in-depth interviews are required in complex situations where the aim is to explore rather than measure.

Webb (1992:124), as stated in Tustin et al. (2005:164), lists the following specific advantages of in-depth interviews:

- In-depth interviews provide a richness and depth of data that cannot be matched by most of the other forms of data collection.
- In-depth interviews provide an opportunity to ascribe a response to a single individual.
- In-depth interviews allow the interviewer to develop a close rapport and a high degree of trust with the respondent, which may encourage a freer flow of conversation and more valid results.
- In-depth interviews overcome overt peer pressure to conform to societal norms.

Zikmund et al (2010:211) provide some disadvantages of personal interviews, including that respondents are not anonymous and as a result may be reluctant to provide confidential information to another person. Also, suppose a survey asked top executives, “Do you see any major internal weaknesses or threats (people, money, material, and so on) to the achievement of your marketing objectives?” Many managers may be reluctant to answer such a sensitive question honestly in a personal interview in which their identities are known.

In this research, 19 in-depth face-to-face hierarchical value map interviews were therefore conducted in the City of Tshwane region within Gauteng.

#### ***4.4.5.2 Projective techniques***

When respondents are reluctant or unable to provide information about their attitudes or beliefs, the researcher can employ projective techniques. Respondents are asked to respond to a range of vague or incomplete stimuli and, depending on their response, the researcher can draw certain conclusions about their attitudes, emotions, motives, values and beliefs (Tustin et al. 2005: 176). According to Malhotra and Birks (2006:187),



with projective techniques respondents are asked to interpret the behaviour of others rather than describe their own behaviour. The more ambiguous the situation, the more respondents project their emotions, needs, motives, attitudes and values, as demonstrated by work in clinical psychology on which projective techniques are based. Typical projective techniques include exercises such as word association, sentence completion, story completion, third-person role play and cartoon completion.

#### **4.4.5.3 Computer-Aided Web-based Interviews (CAWI)**

The major data collection methods used in this study were in-depth interviews and Computer-Aided Web Interviewing (CAWI). Section 4.4.5.1 discussed in-depth interviews in more detail.

In this section, Computer-Aided Web-based Interviewing is addressed. Web surveys are hosted on a website. Respondents visit the survey website either by clicking on a hyperlink in an e-mail or another website or by typing the web address directly into the address box in the browser window (Tustin et al. 2005:244).

Computer-Aided Web-based Interviews (CAWI) were used to collect primary quantitative data from participants. The Bureau of Market Research designed an online survey, and the link to access this survey was sent electronically via e-mail to participants, accompanied with thorough instructions. Participants who did not have access to the Internet were invited to the Bureau of Market Research's computer room to access the survey. Several participants who were invited to complete the online survey were also invited to partake in a face-to-face interview pertaining to either milk, cheese, yoghurt or maas. The advantages and disadvantages of the CAWI and E-mail surveys are provided in Exhibit 4.3.

Method	Advantages/Disadvantages
Computer-Aided Web Interviewing (CAWI)	<p>Advantages:</p> <ul style="list-style-type: none"> <li>• design flexibility</li> <li>• high response rate</li> <li>• quick data collection</li> <li>• the cost can be minimised</li> <li>• anonymity</li> <li>• minimised interviewer error</li> <li>• minimised interviewer bias</li> <li>• data quality</li> </ul> <p>Disadvantages:</p> <ul style="list-style-type: none"> <li>• generalisability issues</li> <li>• multiple/inappropriate responses</li> <li>• duration of completing a questionnaire</li> <li>• inadequate coverage</li> </ul>
E-mail surveys	<p>Advantages:</p> <ul style="list-style-type: none"> <li>• quick and relatively simple</li> <li>• possibility of wide reach</li> <li>• data collected within a short time frame</li> <li>• low cost</li> <li>• flexibility (ease of use)</li> <li>• convenience for respondents in terms of pace and time</li> <li>• possibility of mass mailing</li> </ul> <p>Disadvantages:</p> <ul style="list-style-type: none"> <li>• insufficient coverage</li> <li>• high initial response rate but drops over time</li> <li>• lack of anonymity and confidentiality</li> <li>• limited control over the one who responds</li> <li>• it is difficult to keep email addresses updated</li> </ul>

Exhibit 4.3: Advantages and disadvantages of CAWI and e-mail surveys

Source: Adapted from Tustin et al (2005:245-254)

The data collection methods mentioned in section 4.5 have been used for the collection of data in the application of three major research instruments. These instruments include the AdSAM, PrEmo and the Hierarchical value map. Section 4.5 addresses these instruments.

## **4.5 RESEARCH INSTRUMENTS**

Studies examining the role and relationships of emotion as a mediator of responses to advertising have found that cognition can drive affect (Morris, Woo, Geason & Kim (2002:7). Brown and Stayman (1992) state that affect can directly influence attitude and that cognitive-based models fail to properly measure feelings associated with the source of information. Therefore, failing to understand the role of emotions by focusing on cognitive processes only impedes the ability for understanding various consumer behaviours. The introduction of emotional response adds a more robust framework to deal with and measure advertisements. In recent years, researchers have devoted increased attention to the emotional aspects of consumer behaviour (Holbrook & Batra 1987:404).

Traditionally, attempts to measure emotions have been done in the field of psychology and sociology. In this research, three types of instruments for measuring emotions are reported. Acknowledging the important role of emotions in their field of research, consumer and marketing researchers have developed instruments that measure the emotions elicited by advertisements and consumer experiences (Desmet, 2002:37).

An important issue when studying emotions in consumer research is how to measure them. So what instruments can validly measure emotions? Various instruments are available for measuring emotional reactions to products and advertisements.

In their review of developments in research on emotion research, Cacioppo and Gardner (1999) as stated in Desmet (2002:38) concluded that “the measurement of emotion is a bustling area”. Since then, this area of research has grown ever more, not only in the number of reported instruments but also in the diversity in approaches overwhelming. Today’s instruments range from simple pen-and-paper rating scales to dazzling high-tech equipment that measures brain waves or eye movements (Desmet, 2002:38). The compound nature of emotions could be the reason for such diversity in emotion measuring instruments.

Measuring methods can be classified as either self-report, autonomic measures or brain imaging (Sorensen, 2008). To date, some researchers such as Scherer (2005) and Joubert (2008) are of the opinion that research findings are not clear as what measurement instrument provides the most valid measurement. Hupp, Klein, Dieckmann, Broeckelmann and Walter (2008:77) conclude on the issue of emotion measurement that there is not yet a single gold-standard yet with which all aspects of emotions can be captured, since each of them has its strengths and weaknesses. They suggest that pragmatic criteria should be taken into account when deciding in a favour of a certain measurement approach. Three major instruments were employed in the present study, namely the Self-Assessment Manikin (AdSAM), the Product Emotion Measurement (PrEmo) and the Hierarchical Value Mapping Interviews.

#### **4.5.1 Self-Assessment Manikin (AdSAM)**

##### ***4.5.1.1 Overview of the method***

The AdSAM research instrument was used to measure participants’ emotive reaction to the seven messages, resulting in both quantitative and qualitative research outputs.

The Self-Assessment Manikin (SAM) scale developed by Bradley and Lang in the 1980s (Morris et al. 2002:7) is a pictorial rating system used to obtain self-assessment

ratings of experienced primary emotions on the dimensions affected valence or pleasure, arousal or dominance dimensions to an advertisement. According to the Pleasure, Arousal and Dominance (PAD) approach of general psychology of emotion research, the full spectrum of human emotion can be described by three independent, bipolar dimensions, namely pleasure, arousal and dominance (Poels & Dewitt, 2006).

The instrument can be administered in a paper-based or electronic format. Due to the non-verbal design that requires no literacy, the instrument is usable regardless of the age, educational or cultural background of participants. Furthermore, the instrument provides a measure of a participant's immediate reaction, undiluted by cognitive rationalisation. A participant is requested to rate his/her immediate emotions on a 9-point rating scale, which is depicted by static human figure manikins. Immediate emotive responses are important factors that aid in understanding attitudes, preferences and behaviour. In accordance with the AdSAM, each emotion consists of three dimensions measured within a three-factor complex of pleasure, arousal and dominance (PAD), namely:

- *Pleasure* (appeal) - measures like or dislike. In other words, level of appeal elicited from the product or experience, ranging from extremely unpleasant to extremely pleasant. This is the only true positive or negative dimension.
- *Arousal* (engagement) - measures the level of involvement or excitement elicited from the product or experience, ranging from calm to excited.
- *Dominance* (control; empowerment) - measures the level of empowerment or control elicited from the product or experience, which varies from a feeling of being in control of the situation to that of being controlled.

Exhibit 4.4 illustrates the AdSAM model consisting of the manikin 9-point rating scale, which was translated into a questionnaire.

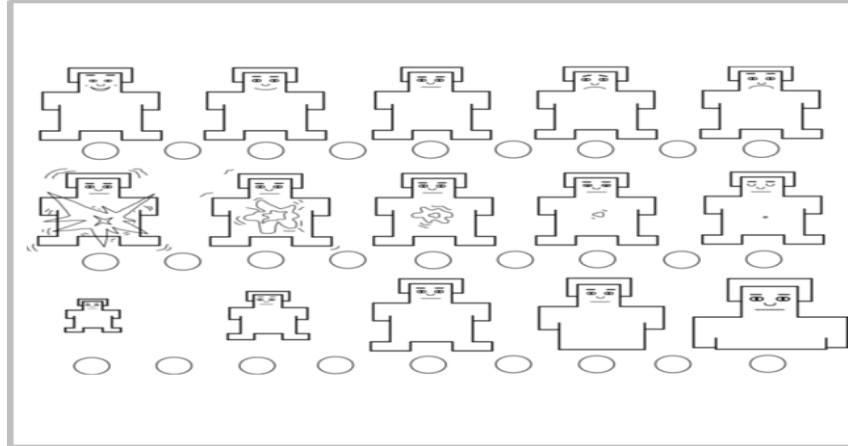


Exhibit 4.4: AdSAM Manikin 9-point rating scale

Source: Morris (1995:64)

The two primary factors evaluated in emotional response data are, firstly, the nature of the feelings evoked, which provides insights into emotional connectors, impact, needs, barriers and receptivity, and, secondly, the degree of homogeneity in the responses, which provides insights into strength of perception, need or barrier.

#### **4.5.1.2 Validity of AdSAM**

“The validity of a measure concerns what the test measures and how well it does so” (Foxcroft & Roodt, 2005:33).

The aim of research in social science is to engage in collaborative human activity in which social reality is studied objectively; not merely to understand phenomena, but to provide a valid and reliable account of our understanding of reality (Mouton & Marais, 1990:7-8). According to Babbie (1995), research should be properly designed to ensure that it is valid, both internally (when the constructs are measured in a valid manner and the data measured is accurate and reliable) and externally (the extent to which the results of the research can be applied to and across persons, settings and time).

Since its development in the 1980s, the AdSAM has been used in numerous psychophysiological studies.

AdSAM is a proprietary measure of emotional response used worldwide in market research, and has been validated over the past 25 years and has been used in both qualitative and quantitative research in over 30 countries. According to Morris (1995:65), the use of AdSAM to measure consumers' emotional response to advertising messages has been demonstrated in a number of studies, both in the United States and Europe. The non-verbal AdSAM emotional response measure enables researchers to understand and assess emotional connections, motivators, needs and barriers that influence the market environment.

In validating the instrument's ability to effectively index similar emotive stimuli, the developers, Morris, Bradley, Waine and Lang (1993) conducted various validity tests against other emotional scales (Mehrabian & Russell 1974) such as Bradley, (Greenwald & Hamm (in press at the time), Greenwald, Cook & Lang (1989), Holbrook & Batra (1988) in Morris et al (1993), using television advertisements. Correlations between scores obtained using the AdSAM and others were significant for both Pleasure (.94) and Arousal (.94) and smaller but still substantial for Dominance (.66). To date, the AdSAM has been used extensively to measure emotional reactions to a wide variety of affective stimuli, including colour pictures, descriptive sentences, digitised sound clips, films and more (Morris et al 1993).

#### ***4.5.1.3 Reliability of AdSAM***

“The reliability of a measure refers to the consistency with which it measures whatever it measures” (Foxcroft & Roodt, 2005:28).

A central consideration in the process of data collection is that of reliability. Reliability requires that the application of a valid instrument to different groups under different sets of circumstances should lead to the same observation (Mouton & Marais, 1990).

In line with ethical practice, in this research the techniques for data collection that were employed ensured anonymity, addressing therefore any effect of participation motivation. Standardised assessment conditions, scoring instructions for instruments and the use of scientifically validated and reliable instruments to assess the research variables were considered crucial throughout the study. Data collection was employed to test the reliability of the selected instruments, including a pilot test.

For purposes of this study, the AdSAM was used for eliciting participants' emotive reactions towards the seven dairy messages listed in section 1.4.3. The next section explains PrEmo in the context of this research.

#### **4.5.2 Product Emotion Measurement (PrEmo)**

Emotional memories are associated with everything consumers experience, including brands. Should a reliable and usable battery of scales to measure the emotions and related feelings associated with a brand be developed, researchers will have a powerful tool for understanding brands as well as the knowledge to position them to capitalise upon positive emotional associations in the brand's marketing communication (Percy & Hansen 2004:32).

More recently, Desmet (2002) developed the Product Emotion Measurement Tool or PrEmo. The PrEmo consists of 14 emotions reflected on animations of a cartoon character that is often elicited by product design. By clicking on each character in animation, the character expresses a different emotion in approximately one second, both by movement and sound. Exhibit 4.5 displays the PrEmo animations used in the questionnaire.





Exhibit 4.5: PrEmo Animated character 5-point rating scale

Source: Susa group, 2012.

The PrEmo, as applied in the current research, is derived from the Susa Group who refined and improved on the original Desmet PrEmo. This version consists of 12 animated characters representing six positive emotions namely Desire, Satisfaction, Pride, Hope, Joy and Fascination and six negative emotions namely Disgust, Dissatisfaction, Shame, Fear, Sadness and Boredom. PrEmo can be used to assess to what extent each of the 12 emotions is elicited by the appearance of a product. Respondents indicate how strongly the target stimulus makes them experience each of the 12 emotions represented by puppets (Sorensen 2008:15). The participant is requested to rate his/her emotions relative to the emotion depicted by the animated character, using a 5-point scale.

After viewing a product, participants are requested to evaluate their emotive reaction according to the expressions of the 12 cartoon figures in relation to the product.

PrEmo was initially developed to measure emotional responses to design (Desmet 2002:37) “an instrument designed specifically to measure product emotions, i.e. emotions that are evoked by the appearance of a product. This instrument was developed because one of the aims of the research is to study relationships between products’ appearance and the emotions they evoke”. However, some researchers applied PrEmo to measure emotions evoked by advertisements.

Advantages of PrEmo include the fact that although the instrument is computerised, literacy is not a pre-requisite for participation. The PrEmo uniquely combines two qualities. It measures distinct secondary emotions, and it can be used cross-culturally as it does not ask participants to verbalise their emotions. In addition, it can measure mixed emotions, that is, more than one emotion experienced simultaneously. In this regard, Sorensen (2008:15) states that an important difference between SAM and PrEmo is that with PrEmo more than one specific emotion can be registered making it suitable to study mixed emotions. According to Ketelaar and Van Gisbergen (2004), as stated in Joubert (2008:10), PrEmo is a user-friendly, valid, and inexpensive instrument to measure emotional reactions to advertising.

For purposes of this study, the PrEmo was used for eliciting participants’ emotive reactions towards the four identified dairy products. Besides the measurement of emotive reactions, the research attempts to measure cognitive reactions to dairy products. The Hierarchical Value map finds essence in this regard.

The laddering technique and the Means-End Chains are explored. Furthermore, the validity and reliability of such an instrument are provided.

### **4.5.3 Hierarchical Value Map (HVM)**

The importance of personal values in predicting and understanding consumer behaviour has been proven in theory and in practice (Kamakura & Novak, 1992). The relevance of personal values has been clearly indicated by Kamakura and Mazzon (1991):

Values provide potentially powerful explanations of human behaviour because they serve as the standards or criteria of conduct ..., tend to be limited in number ..., and are remarkably stable over time.

In line with this, several authors have called for a focus on consumer motivations and goals in marketing research (Reynolds & Olson, 2001; Baumgartner, 2002). Insight into the values driving consumption is a useful base for the formulation of product development, positioning and advertising strategies (Reynolds & Olson, 2001).

#### **4.5.3.1 The laddering technique**

Laddering refers to an in-depth, one-to-one interviewing technique used to develop an understanding of the way in which consumers translate the attributes of products into meaningful associations with respect to self, following Means-End Theory (Reynolds & Gutman 1988:12). The laddering technique is made up of a linking or ladder of elements that represent the link between products and the consumer's perception process (Malhotra & Birks 2006:183).

According to Klenosky and Saunders (2005), the technique is called laddering for two reasons, the first being the fact that the interview proceeds by the "laddering" of the response given. By using this approach, the attributes elicited at the beginning of the interview lead to consequences provided by those attributes, which in turn identify personal values important to the respondent.

The second reason is the fact that the respondent is essentially forced up the “ladder of abstraction”. That is relatively concrete concepts at the attribute level to more abstract concepts at the consequence level, which are ultimately linked to even more abstract concepts at the personal values level (Klenosky, Gengler & Mulvey, 1993)

A laddering interview approach positions the participant as the expert. Interviewers position themselves as mere trained facilitators of the discovery process. Response options are minimised and, in essence, the interviewer is as direct as possible with the questioning, while still following what appears to be an unstructured format. By continually probing with the question ‘Why is that important to you?’ the interviewer reinforces the perception of being genuinely interested and thus tends to command respect and control the dialogue. By creating a sense of involvement and caring during the interview, the interviewer is able to determine the participant's most obvious reasons to discover the more fundamental motivations underlying the participant's perceptions and behaviour.

Understanding the participant involves putting aside all internal references and biases while placing oneself in the participant's position. It is critical that rapport be established before the actual in-depth probing is initiated and maintained during the course of the interview. In essence, the interviewer must instil confidence in the participant so that the opinions expressed are perceived as simply being recorded rather than judged. Also critical to the interviewing process is the ability of the interviewer to identify the constructs brought forth by the participant in terms of the attributes, functional and psychological consequences and personal values (levels of abstraction framework). Thus, a thorough familiarity with ‘means-end theory’ is essential. Sensitive areas will frequently produce superficial responses created by the participant to avoid introspection about the actual reason(s) underlying the participant's behaviour. Clinical sensitivity is further required of the interviewer to both identify and deal with these frequent and potentially most informative types of dialogue.

As with all interview situations, since the participants will react directly in accordance with the interviewer's verbal and nonverbal cues, it is vital to make the participant feel at ease. Moreover, to avoid any 'interview demand characteristics', nonverbal cues such as approval, disapproval, surprise or hostility or implicit rejection should be avoided. Put simply, the interviewer should be perceived as a very interested yet neutral recorder of information.

The laddering technique provides a standardised approach and valuable insight into relationship between attributes of products, services and ideas to personal values underlying consumer behaviour.

The theoretical perspective of Means End Chains provided by Reynolds and Gutman (1988) can also be applied to the laddering technique and is discussed in section 4.5.3.2.

#### **4.5.3.2 Means-End chains**

Means-End Chain (MEC) theory is concerned with relationships between attributes, benefits and values. Attributes are defined as relatively directly observable physical characteristics of a product or service. Benefits are less, or not, directly observable characteristics of a product or brand. They can be a combination of several attributes and are the result of a consumer using the product. Personal values are generally defined as relatively stable cognitions and beliefs that are assumed to have a strong motivational impact. Examples are 'ease of use', 'comfort', 'convenience', etc. (Vriens & Ter Hofstede 2000:6).

Means-end theory offers a practical metaphor to assess consumers' 'dairy usage structures'. The central principle of the theory is that dairy usage structures stored in the memory consist of a chain of hierarchically-related elements. The chain starts with the dairy attributes and establishes a sequence of links with the self-concept (personal

values) through the perceived consequences or benefits produced by certain attributes of dairy. This forms a 'means-end chain' in that attributes are the means by which the dairy product provides the desired consequences or values, ie the ends. Underlying this approach is the theory that values are the ultimate source of choice criteria that drive buying behaviour. For a finer-grained analysis of the mental representations, each basic level of abstraction can be divided into sublevels, leading to distinct categories of abstraction: concrete attributes, abstract attributes, functional consequences, psychological consequences, instrumental values, and terminal values (Olson & Reynolds, 1983).

Certain dairy attributes may be preferred or sought by consumers. These attributes do not explain per se for what reasons the product might be bought. According to the means-end theory, one can distinguish between two levels of attributes: concrete and abstract attributes, eg 'price' and 'good quality'. In both cases additional information about the product itself is received, although no underlying reasons why the product is chosen and/or bought are discovered. Again, according to means-end theory one can differentiate between consequences on the functional level, eg 'it tastes nice', and consequences on the psychosocial level, eg 'my physical appearance gives me self-confidence'. Both are linked to attributes sought and personal values, which are divided into instrumental and terminal values. From the consumer's point of view it is not the product's attributes that are relevant, but the problem solution - the benefit sought - that they derive from a certain combination of attributes.

To determine the values attributed to dairy products, the most salient attributes were firstly elicited by means of a cognitive exercise where participants were asked to identify the most important qualities dairy products should have when purchases are being made. Personal value ladders were constructed by answering the question 'Why is that attribute important to you?'

The laddering technique was selected to be used in this research as it gives the researcher the possibility to move beyond the simple question of simply determining the

degree to which the particular attributes, consequences and values are important to consumers. It also explores the deeper issues of how and why these factors gain their importance (Frauman, Norman & Klenosky, 1998). As mentioned earlier in section 3.4.5.1, 19 in-depth face-to-face hierarchical value-mapping interviews were therefore conducted in the City of Tshwane region within Gauteng.

#### ***4.5.3.3 Validity of HVM***

The interviews were structured according to the laddering technique and respondents responded within the boundaries of the questions asked. They were not guided or influenced in their responses, and their responses were recorded and transcribed.

Since the introduction of the laddering methodology into the consumer research domain, numerous applications, both applied and academic, have been executed (Reynolds & Gutman, 1988:13).

#### ***3.5.3.4 Reliability of HVM***

The laddering technique interview guide used for data collection ensured anonymity so that the participant's reason for motivation could be addressed. Respondents were exposed to similar interviewing conditions and systems, and data gathering was used to test reliability of the selected instrument, through a pre-test with a selected sample of the population being studied.

The HVM is a reliable and valid instrument to measure consumers' underpinning value for consuming specific products, especially the dairy products under investigation in this research. Section 4.6 looks at the measures taken to ensure data quality in this

research. Data quality control deals with the credibility attached to the data collection process.

#### **4.6 DATA QUALITY CONTROL**

The interviewers, team leaders and field supervisors were briefed and trained by a Project Manager/Research Executive who reported to the Research Manager. During the training a 'pilot' study was carried out before the project commenced. The field process was supervised through accompanying, back checking (10% of the questionnaires done by each interviewer) by field supervisors and questionnaire editing to determine any inconsistencies.

The data collection phase was therefore based on a sound control system of all interviews, both online and face-to-face. Management at the BMR ensured professional training of the facilitators for interview sessions. Regular checks and back-checks were conducted to ensure full comprehension of the questionnaire.

The credibility and quality of this study was strengthened through data triangulation by substantiating the findings from various sources. The steps were implemented to ensure the quality of the acquired research data are outlined in the sections that follow. A team of researchers was involved in the design of the research and questions asked in the research instruments to ensure that all pertinent issues to be addressed were covered. Two researchers were involved in synchronising the data gathered from the research instruments. Secondly, all open-ended questions and thematic analysis were cross-checked.

Two senior researchers were involved during the cross-check of data obtained from the face-to-face and online interviews. These researchers were credible and well trained in the various research instruments and interviewing techniques. Their professional qualifications and backgrounds, experience in CAWI facilitation and laddering



interviews, coupled with their knowledge of consumer behaviour and the dairy industry in particular, contributed towards the credibility of this study.

Comprehensive secondary research into various studies, theories and models was conducted prior to and during the analyses of the data.

Three data collection research methods were used and more than one researcher was involved in all laddering interviews. Participants were given the opportunity to pose questions in case of uncertainty. The two instruments used during the CAWI approach measured emotive reaction, while the laddering hierarchical value mapping interviews additionally also employed a deeper psychological value measure.

#### **4.7 RESEARCH ETHICS**

According to Tustin et al (2005:42) ethics, which refer to what is deemed acceptable (good) or unacceptable (bad) in human conduct, have become a key issue in marketing research, just as they have in other areas of business research.

In this regard, participation in the research was voluntary and anonymous. Thorough instructions that were self-explanatory and easy to follow were provided while the overall purpose of the research and accompanying ethical requirements were made clear to all participants. No time limits were imposed and participants could complete the questionnaire and discussion guide at their own pace.

The invitation to participate in the research explained the nature and focus of the discussions and confidentiality of information was guaranteed. Participants were informed about the right to withdraw or discontinue participation at any stage of the process. In responding affirmatively to the invitation, participants indicated confirmation of agreeing to participate and that they understood that all inputs provided would be treated confidentially and be used for research purposes. During personal in-depth

interviews, participants were informed that all discussions are recorded with their permission by using electronic recording devices and that the recording would be used for cross-checking later. Interviewers reiterated anonymity, confidential treatment of inputs and that all transcriptions would be collated to finally conduct thematic analysis on the outcome of the study. Participants were guaranteed feedback on the results, via a designated reporting structure.

#### **4.8 CHAPTER SUMMARY**

To explore the factors shaping consumers' buying decisions regarding dairy products, the current study employed three different but interrelated measuring instruments namely, Self-Assessment Manikin (AdSAM), the Product Emotion Measurement (PrEmo) and the Hierarchical Value Mapping interviews (HVM).

They consistently measured the emotions associated with consumers' reactions to both the seven messages and the four dairy products forming the basis of this study. The results from this research, together with the analyses in the next chapter will be a valuable foundation in developing marketing strategies and developing national communication campaigns for the South African dairy industry.

Chapter 5 will discuss the data analysis.

## **CHAPTER 5**

### **DATA ANALYSIS AND DISCUSSION**

#### **5.1 INTRODUCTION**

In the previous chapter, the methodology as well as the process and development of the questionnaire were laid out. Chapter 5 deals with the analysis and interpretation of the data collected through the questionnaire. It involves investigating consumer emotive reaction using the three major instruments namely, AdSAM, PrEmo and the HVM to the seven advertising messages and four dairy products.

As mentioned in the previous chapter, this research employed a mixed-method approach to investigate emotive reaction to the seven advertising messages and four dairy products. These sources included both secondary insights as well as primary data.

The main sections of this chapter are depicted in section 5.1.

<b>CHAPTER 5: DATA ANALYSIS AND DISCUSSION</b>
<b>5.1 INTRODUCTION</b>
<b>5.2 EMOTIVE REACTION TO DAIRY MESSAGES</b> 5.2.1 AdSAM analysis 5.2.2 AdSAM quantitative and qualitative results
<b>5.3 EMOTIVE REACTION TO DAIRY PRODUCTS</b> 5.3.1 PrEmo analysis
<b>5.4 COGNITIVE REACTION TO DAIRY PRODUCTS</b> 5.4.1 Hierarchical Value mapping qualitative analysis
<b>5.5 IMPACT OF GENERAL MOOD ON DAIRY PRODUCTS</b>
<b>5.6 CHAPTER SUMMARY</b>

Figure 5.1: Layout of Chapter 5

## **5.2 EMOTIVE REACTION TO DAIRY MESSAGES**

The quantitative results are reflected in an emotive matrix, which is described below. This is followed by the qualitative findings which depict the verbatim reasons given by participants with regards to their expressed emotive reactions to the messages.

### **5.2.1 AdSAM analysis**

Empirical studies report a positive relationship between Pleasure and Arousal dimensions and can be expected in most advertising (Morris, Bradley, Waine and Lang, 1993). Morris et al (2002) suggest that, by restricting the analysis to the Pleasure and Arousal dimensions alone, an interpretable 'two-dimensional affective space' results without losing much variance. Based on this analysis, the emotive reactions form three general clusters. Low Pleasure (1-3) and Arousal in various degrees (1-9) produces the bottom cluster of emotions, where low Arousal (1-3), average Arousal (4-6) and high Arousal (7-9) result in the Sullen, Troubled and Alarmed segments. Average Pleasure (4-6) and Arousal in various degrees (1-9) produces the middle cluster of emotions, where low Arousal (1-3), average Arousal (4-6) and high Arousal (7-9) result in the Indifferent, Ambivalent and Apprehensive segments. Lastly, high Pleasure (7-9) and Arousal in various degrees produces the top cluster of emotions, where low Arousal (1-3), average Arousal (4-6) and high Arousal (7-9) are classified as the Comfortable, Warmed and Enthusiastic segments. The AdSAM quantitative and qualitative results are discussed in section 5.2.2.

## 5.2.2 AdSAM quantitative and qualitative results

The specific emotional segments associated with each of the messages are explored in more detail in the section to follow. In addition, participants were also given the opportunity to provide reasons for their expressed emotive reactions to the seven messages. These reasons were thematically analysed, and are reflected below each exhibit as it refers to the responding message. The quantitative and qualitative results are displayed in Figures 5. 2 to 5.8 and Exhibits 5.1 to 5.7.

<b>Pleasure</b>	Positive	9	<b>Comfortable</b> <b>20.3%</b> Relaxed Secure Untroubled			<b>Warmed</b> <b>24.6%</b> Capable Confident Carefree			<b>Enthusiastic</b> <b>49.3%</b> Victorious Energetic Alive			
		8				Responsible Secure			Exuberant Triumphant			
		7	Leisurely Respectful									
	Negative	Negative	6	<b>Indifferent</b> <b>1.4%</b> Uninterested Unemotional Aloof			<b>Ambivalent</b> <b>4.3%</b> Sheltered Sensitive Embattled			<b>Apprehensive</b> <b>0%</b> Activist Anxious Defiant		
			5				Repentant Conforming			Startled Radical		
			4	Unimpressed Subdued								
	Negative	Negative	3	<b>Sullen</b> <b>0%</b> Unresponsive Unconcerned Apathetic Uncaring Bored			<b>Troubled</b> <b>0%</b> Helpless Insecure Rejected Depressed Discouraged			<b>Alarmed</b> <b>0%</b> Aggravated Terrified Afraid Stressed Fearful		
			2									
			1									
			1	2	3	4	5	6	7	8	9	
			Negative			Arousal			Positive			

Figure 5.2: Calcium from dairy helps build strong bones for life

Figure 5.2 illustrates the emotive reactions elicited by nine emotive segments/groups in three clusters ranging from low Pleasure/low Arousal (Sullen) to high Pleasure/high

Arousal (Enthusiastic). This message elicited mostly Pleasure-related emotions, with 94.2% of participants reacting with high Pleasure (7-9). Almost half the participants (49.3%) expressed positive Arousal with the same percentage of participants reacting enthusiastically to this message. Verbatim reasons provided for the Calcium message are listed in Exhibit 5.1.

#### **CONFIRMATION THAT CALCIUM BUILDS STRONG BONES**

Because dairy products are rich in calcium

Because I feel that dairy products enhance bone strength

Because milk helps our bones to be strong and that is why I am happy about it

Bone strength

Dairy products are healthy for my bones, they become stronger

Dairy products do strengthen bones

Dairy products enhance bone strength

From what I have learned in biology calcium is really good for our bones

Good to know that dairy will help against osteoporosis

I believe that the message is true

I feel good cause I am on the right track to building my bones to be strong

I know for a fact as I am an athlete

I know it is true

I love dairy and it is good to know that it helps with building strong bones

Because I am happy to know that milk helps our bones to be strong

It helps keep my bones strong

It tells that you're not only buying the product, but you are also building strong

Bones

There is evidence to back up the claims and I definitely believe it

This is a confirmation of what is known

We all need calcium in our body, so that our bones may remain strong

Achieved by eating one of the best milk products

**HEALTHY LIVING**

Bone strength basically means good health and good health really mean long life

Because I used to have weak bones but now I know that my health will drastically improve

Health is being highly considered

Healthy mind and healthy body

Healthy

I know it assists me in my health and nutritional needs

Important to take care of your health

It is because dairy keeps my health in good condition

It is good for me and my health for my future

It really makes me feel good, because dairy product makes my body strong and healthy

It is healthy

That it is true and I need not take additional medication

The assurance to good health

The fact that I can continue with consuming dairy products because they are good for my health

The fact that it builds strong bones, therefore making my bones healthier and well nourished

The assurance that my health is being taken care of

Dairy products gives your bones strength, which is a good thing for one's health

**ENERGY**

Energy from fat free milk

It gives me energy

Lots of fat and energy makes me feel happy

**BODY STRENGTH**

If dairy helps my bones to be strong, then it means my body will be strong

The fact that I will grow big and strong



<p><b>DAIRY LOYALTY</b></p> <p>I am satisfied because I love anything that has to do with milk because when I grew up my mother was using milk as staple food and now my family and I are loyal users of dairy</p> <p>Dairy makes me happy</p> <p>I am enjoying the product, I really enjoy dairy</p>
<p><b>STRONG TEETH</b></p> <p>Because it builds strong teeth, which is needed for growing up kids</p>
<p><b>GOOD FOR BODY</b></p> <p>Because it is good for my body</p>
<p><b>PERSONAL ACCOUNTABILITY</b></p> <p>Feeling in control of one's life</p> <p>Taking care of myself is important to me</p>
<p><b>POSITIVE EMOTIONS IN RELATION TO MESSAGE</b></p> <p>Confident, happy</p> <p>Exciting</p> <p>It is good</p> <p>I like it</p> <p>I am a positive person</p>
<p><b>NEGATIVE ASSOCIATIONS TO MESSAGE</b></p> <p>I feel like I hear this all the time, get bored of hearing it</p>

Exhibit 5.1: Reasons for expression of emotive reaction to the calcium message

Exhibit 5.1 reflects that the message, “calcium from dairy helps build strong bones for life”, induces mostly positive associations and affirmations among the majority of participants. Furthermore, calcium intake is associated with healthy living and ensuring future health.

Figure 5.3 displays the analysis of the second message, namely “dairy helps build strong muscles, as it is a source of high-quality protein”.

<b>Pleasure</b>	Positive	9	<b>Comfortable</b> <b>27.9%</b> Relaxed Secure Untroubled	<b>Warmed</b> <b>16.2%</b> Capable Confident Carefree	<b>Enthusiastic</b> <b>38.2%</b> Victorious Energetic Alive					
		8	Leisurely Respectful	Responsible Secure	Exuberant Triumphant					
		7	<b>Indifferent</b> <b>0%</b> Uninterested Unemotional Aloof	<b>Ambivalent</b> <b>10.3%</b> Sheltered Sensitive Embattled	<b>Apprehensive</b> <b>4.4%</b> Activist Anxious Defiant					
	6	Unimpressed Subdued	Repentant Conforming	Startled Radical						
	Negative	5	<b>Sullen</b> <b>1.5%</b> Unresponsive Unconcerned Apathetic	<b>Troubled</b> <b>1.5%</b> Helpless Insecure Rejected	<b>Alarmed</b> <b>0%</b> Aggravated Terrified Afraid					
		4	Uncaring Bored	Depressed Discouraged	Stressed Fearful					
		3	1	2	3	4	5	6	7	8
				Negative	<b>Arousal</b>			Positive		

Figure 5.3: Dairy helps build strong muscles, as it is source of high-quality protein

Figure 5.3 reflects the emotive reactions to the muscle strength message. This message elicited mostly Pleasure-related emotions, with 82.3% of participants reacting with high Pleasure (7-9). Forty two point six percent (42.6%) expressed positive Arousal with 38.2% of participants reacting enthusiastically to this message. It is evident that this message also evoked little or no emotive valence among 10.3% of participants being classified as Ambivalent.

Verbatim reasons provided for the Strong Muscle message are listed in Exhibit 5.2.

**CONFIRMATION THAT PROTEIN BUILDS STRONG MUSCLES**

A person who normally consumes dairy products has strong muscles  
I am glad that I can obtain protein through assuming dairy products because it can help our muscles  
Because it has proteins  
Because its true  
Dairy products are rich proteins  
Dairy products enhances muscle strength  
Everyone need strong muscles  
Good to know that dairy is a source of protein  
I believe it  
I do consume dairy products, so I am confident that I have strength  
I love exercising, and it's good to know the dairy I use also helps to build muscle  
It's true  
Muscle Strength  
My muscles are getting stronger every day, as I do consume these products every week  
The fact that it helps your muscles to be strong and healthy  
We all need strong muscles  
I think I have witnessed this for myself. Every person wants to be like this in terms of physical fitness in townships

**EMPOWERMENT**

Being physically able is very empowering to me  
Wake up every morning feeling like taking on the world

**WEIGHT CONTROL**

Build muscle to help with weight control

Enhances my health  
Healthy

Healthy eating

If I know that milk will enhance muscle strength then this is just another ticket to less health worries

Good and healthy lifestyle

It's healthy

It's good for me and my health for the future

I feel happy health wise

We need protein in our bodies so that make me good

### **NOURISHMENT**

Its providing me with the nourishment i require

### **ENERGY**

It keeps me energetic

Because of energy and vitamins

This means that dairy products are the ones giving us energy, almost on daily basis

Because of vitamin and energy

### **POSITIVE EMOTIONS IN RELATION TO MESSAGE**

It could be so about muscle strength, I feel good that it strengthens muscles

It is good to know that I will have strong muscles

I like it

It feels good

### **NEGATIVE ASSOCIATIONS TO MESSAGE**

I already knew about the muscle strengthening

I am a lady I am not so interested in muscle building stuff

I am not sure about this statement, however it may have some truth to it

I don't feel that drinking milk would make me stronger

I think this is not true  
It only applies to people who are athletic  
It does not bother me  
Not sure  
Not really the case, it depends in other nutritional factors a person consume  
Protein is essential but I can get it from other products such as eggs, fish so dairy products are not necessarily my favourite choice when it comes to protein  
  
We need dairy for strong bones  
Dairy has a lot of calcium which makes bones very strong  
Well a lot of people don't know about proteins, most who know are those literate

Exhibit 5.2: Reasons for expression of emotive reaction to the strong muscle message

Exhibit 5.2 reflects that the message, “dairy helps build strong muscles, as it is a source of high-quality protein”, also evoked many positive associations and affirmations among participants. Muscle strength due to protein intake is associated with nourishment, health and physical energy, which results in a feeling of empowerment for some participants. However, it is noteworthy that a large number of participants expressed concern and disbelief about this message, with responses relating to the role of strenuous exercise in improving muscle strength, such as being “athletic”, and rather endorsing protein intake gained from alternative food products, such as “eggs” or “fish”. A few participants reverted back to the message take-out from the first message, saying that dairy is used for “strong bones”.

Figure 5.4 displays the analysis of the third message, namely “dairy enhances growth as it strengthens growing bones”.

<b>Pleasure</b>	Positive	9	<b>Comfortable</b> 28.4%			<b>Warmed</b> 14.9%			<b>Enthusiastic</b> 43.3%		
		8	Relaxed			Capable			Victorious		
		7	Secure			Confident			Energetic		
	Negative	6	Untroubled			Carefree			Alive		
		5	Leisurely			Responsible			Exuberant		
		4	Respectful			Secure			Triumphant		
	Negative	3	<b>Indifferent</b> 0%			<b>Ambivalent</b> 10.4%			<b>Apprehensive</b> 0%		
		2	Uninterested			Sheltered			Activist		
		1	Unemotional			Sensitive			Anxious		
Negative	0	Aloof			Embattled			Defiant			
	-1	Unimpressed			Repentant			Startled			
	-2	Subdued			Conforming			Radical			
Negative	-3	<b>Sullen</b> 3%			<b>Troubled</b> 0%			<b>Alarmed</b> 0%			
	-4	Unresponsive			Helpless			Aggravated			
	-5	Unconcerned			Insecure			Terrified			
Negative	-6	Apathetic			Rejected			Afraid			
	-7	Uncaring			Depressed			Stressed			
	-8	Bored			Discouraged			Fearful			
		1	2	3	4	5	6	7	8	9	
		Negative			Arousal			Positive			

Figure 5.4: Dairy enhances growth as it strengthens growing bones

Figure 5.4 reflects the emotive reactions to the message relating to complementing growth. This message elicited mostly positive emotions, with 86.6 % of participants feeling positive Pleasure (7-9) and less than half (43.3%) expressing positive Arousal. Forty three point three percent (43.3%) reacted enthusiastically to this message. As with the previous message, 10.4% of participants can be classified as feeling Ambivalent in that little or no emotive valence was evoked by this message.

Verbatim reasons provided for the Bone Strength message are listed in Exhibit 5.3.

## **CONFIRMATION THAT PROTEIN BUILDS STRONG MUSCLES**

I am still growing and the strength of my bones are growing too, I feel dairy products are a vital component especially because it is a natural source unlike taking medication

It is important to have strong bones even when I'm older

Because I know that dairy products are ideal for growth

Because it's about growth

Because it is true

Dairy does help us in growth for it makes our bones to grow strong

Dairy just keeps me strong

Dairy products complement growth

Dairy products do enhance growth, for example a new born baby is fed milk to grow

Growth

I believe it

I can see it in children

I do need strong bones to make me feel strengthened

I feel healthy and stronger

It is definitely healthy for growing bones, therefore children should have dairy as a vital component to their diet

It is good for the young ones when they are growing up

Strong bones

Strong bones makes me grow

That is one of the reasons I buy milk for my kids

That it will help my bones grow healthy and strong

They make us grow bigger day by day

This message is right in the sense that I never got any malnutrition diseases

Because I was using milk direct from the farm at Limpopo during my childhood

This message is true

We grow everyday so we need strong bones to keep up

Well it is so motivating because you can get strength from dairy  
When it comes to a strong healthy body one needs dairy products

**HEALTH**

Healthy  
Healthy  
Healthy diet  
Healthy diet is essential on daily basis  
it's healthy  
It's good for me and my health for the future  
It provides me with the nourishment I require  
Strong bones means it is a healthy person

**ENERGY**

It has a lot of energy such as Rama

**POSITIVE EMOTIONS IN RELATION TO MESSAGE**

As I am a mother, this is good about the growth of bones especially for my kids  
I feel good  
It increases my self-efficacy about my development  
It means I'm on the right track  
Knowing it helps my children to grow  
Knowing that dairy products enhances growth makes me feel confident to give it to children  
Knowing that growth is boosted by this  
I like it  
I like my kids to be healthy and balanced  
This may be true  
I just need more intellectual stimulation, if dairy products help here, then I'm all for it.  
Awesome!  
Good to know  
Good to know that it helps kids specifically to grow



### **NEGATIVE ASSOCIATIONS TO MESSAGE**

I don't see any changes as I am still short even though I drink lots of milk

I am not really a big fan of dairy

Growth doesn't factor as much as maintenance at my age

I am a grown young lady I don't feel interested in information about growth that applies to young kids

I don't know much about complementing growth

I am not totally convinced if it is true

I am getting stronger and energetic every day after a work out!

I don't believe it

I'm going to be shorter

Well growth, I don't know. I think I'm tall enough

Exhibit 5.3: Reasons for expression of emotive reaction to the bone strength message

Exhibit 5.3 indicates that the message, “dairy enhances growth as it strengthens growing bones”, also evoked many positive associations and affirmations among many participants. Participants mostly associate this message with health, and one participant referred to energy. A few participants feel doubtful about the credibility of this message, as can be seen especially in responses where body length appears to be a sensitive issue and participants being of the opinion that bone strength is obtained through physical exercise. Some adults are of the opinion that improving bone strength is only required for growing children. A few participants also admitted to being uneducated with regards to the nutritional value of dairy.

Figure 5.5 depicts the analysis of the fourth message, namely “milk contains less fat than you think”.

<b>Pleasure</b>	Positive	9	<b>Comfortable</b> 28.4%	<b>Warmed</b> 13.4%	<b>Enthusiastic</b> 35.8%	
		8	Relaxed Secure Untroubled	Capable Confident Carefree	Victorious Energetic Alive	
		7	Leisurely Respectful	Responsible Secure	Exuberant Triumphant	
	Negative	6	<b>Indifferent</b> 4.5%	<b>Ambivalent</b> 9%	<b>Apprehensive</b> 0%	
		5	Uninterested Unemotional Aloof	Sheltered Sensitive Embattled	Activist Anxious Defiant	
		4	Unimpressed Subdued	Repentant Conforming	Startled Radical	
	3	<b>Sullen</b> 7.5%	<b>Troubled</b> 0%	<b>Alarmed</b> 1.5%		
	2	Unresponsive Unconcerned Apathetic	Helpless Insecure Rejected	Aggravated Terrified Afraid		
	1	Uncaring Bored	Depressed Discouraged	Stressed Fearful		
		1   2   3	4   5   6	7   8   9		
		Negative	<b>Arousal</b>			Positive

Figure 5.5: Milk contains less fat than you think

Figure 5.5 reflects the emotive reactions to the Less Fat message. This message elicited mostly positive emotions, with 77.6% of participants expressing positive Pleasure (7-9) and only 37.3% expressing positive Arousal. Approximately a third (35.8%) of the participants reacted enthusiastically to this message. This message evoked little or no emotive valence among 9% of participants, who can be classified as Ambivalent. It is, however, noteworthy that a number of participants reacted with limited emotion as 7.5% of participants also reacted with Sullen emotions and 4.5% with Indifferent emotions towards this message.

Verbatim reasons provided for the less fat message are listed in Exhibit 5.4.

### **IMPORTANCE OF LESS FAT TO HEALTH**

Away with cholesterol

Fat is very dangerous to my health

It's healthy

It's great because it is a good protein as well

It makes me feel good because milk will help my body stay in shape and not bring fats to my body and also influence me to drink milk more often

I will not be affected by the disease caused by fat

The fact that my health is guaranteed

This is a good message because I do not need fat in my body

It is very tasty but there is no extra kilos

Who wants to have health ailments

Who wants to live with massive kilograms of fat in their bodies- Definitely not me. I am all for less fat, more productivity in life!

### **POSITIVE REACTION**

I don't like food with a lot of fat

Good to know

Good news because I drink a lot of milk in my coffee and tea

I did not know about that and it is exciting to know that

I don't like fatty foods so with milk containing less fat I'm happy

I like foods that are low in fats because I am dieting

I like it because i don't gain unnecessary fat, I keep health and fit

It makes me feel happy

I like less fat

Pleased to hear this

My appetite resumed after being lost previously

Being in control of my body

### **INDIFFERENCE**

Fat is where the taste comes from and i don't care how much fat there is in it fine

I only use fat free, so it doesn't really affect me

It does not really concern me that it has less fat than I thought because I do not consume it on a daily basis and since I don't, I reckon it will be good fat anyway.

### **UNCERTAINTY**

I hope that it is not only low fat milk, as the myth is that dairy products are very fattening

If it is true, then its good news

I'm not sure

Not sure actually we've got different products of milk eg Full cream, low fat & skim.

Some contains more fat

Some products say they are full cream and others are low fat. Don't know if they are lying to us or what

Don't know

Confusion

### **MISUNDERSTAND MESSAGE**

Fat free milk is more important than full fat

Yes, that is true I have noticed that. There are even full cream milk and fat free milk

### **ACCEPTANCE OF MESSAGE**

I think milk does have less fat

I can see that its true because I have experimented

Milk contains less fat than you think

Some of my friends told me that milk has a lot of fat and that sort of made me to lessen my intake of milk. Thank you, I will continue to consume milk the way I used to; moderately.

Totally agree

True

I was not aware

Is good for everyone to consume low fat products but I think the message is surprising

Less fat
<p><b>DISAGREEMENT WITH MESSAGE</b></p> <p>Dairy products do have fat. We have to make healthy choices in the amount of dairy we consume on a daily basis. There are healthy choices such as fat free or less fat option.</p> <p>Don't think so, milk has a lot of fats unless it has been specified</p> <p>Here problem arises as milk have a lot of fats they have to be selected from low and fully creamy milk based on what kind of person is going to consume that milk and for what good reason</p> <p>The amount of fat is irrelevant as opposed to the ratio of saturated to unsaturated fats, total caloric content and the presence of preservatives and trans fatty acids.</p> <p>This is false, it depends on whether it is full cream or low fat or skim milk</p> <p>Only if it is fat free milk</p> <p>Milk also contain fat</p>
<p><b>DAIRY LOYALTY</b></p> <p>I drink a lot of whole milk!</p> <p>I drink a lot of milk</p> <p>The fact that dairy products are source of energy</p>

Exhibit 5.4: Reasons for expression of emotive reaction to the less fat message

Exhibit 5.4 indicates that the message, “dairy contains less fat than you think”, evoked mixed reactions. Participants generally agree that less fat is important for good health, although one participant felt that less fat would be negative as ‘milk contains good fat’. The majority of participants reacted positively to the message, but this did not necessarily lead to acceptance of the message. A number of participants completely disagreed with the message, while others were uncertain whether this message applied to all types of dairy products. Misunderstanding occurred in cases where participants were of the opinion that the message only applies to fat free milk. For some

participants it did not make a difference whether milk contains fat as they feel that the fat enhances the taste delivery and that the fat has beneficial qualities.

Figure 5.6 depicts the analysis of the fifth message, namely 'dairy products help promote a healthy weight by contributing to weight loss and weight maintenance'

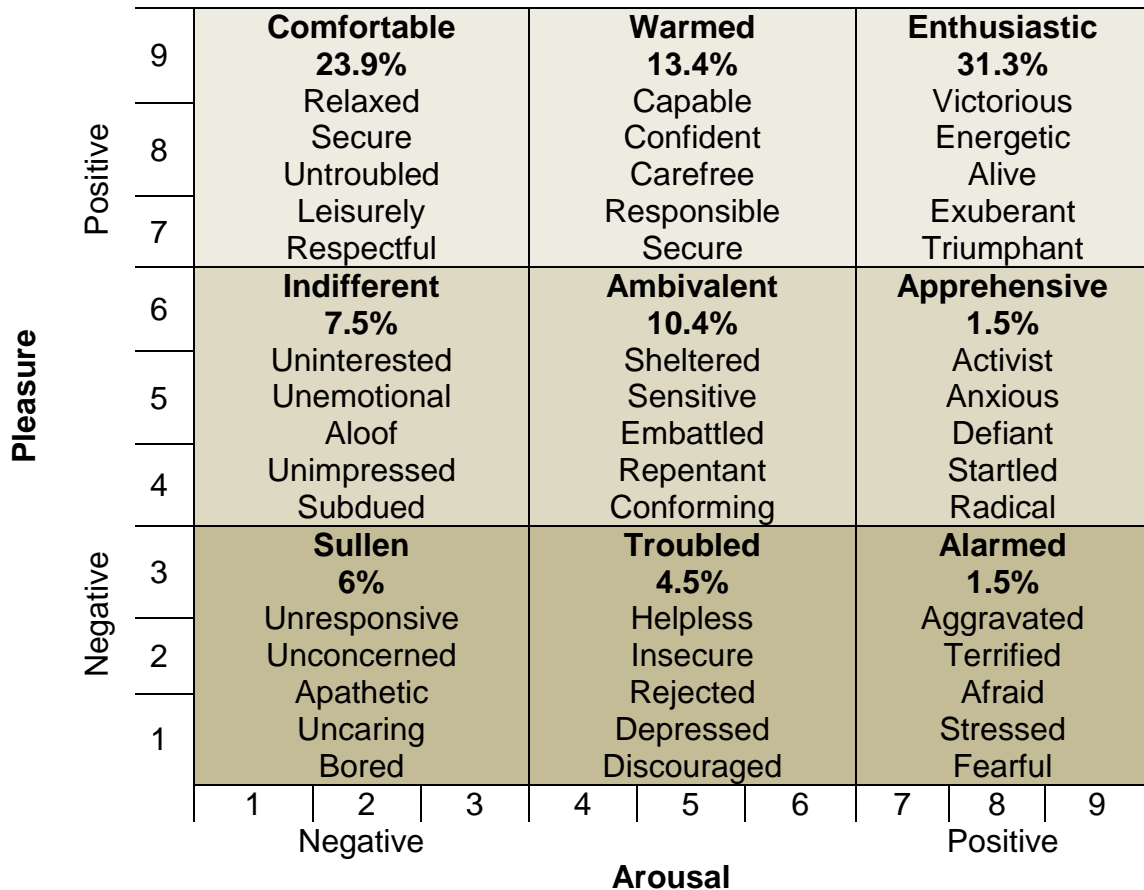


Figure 5.6: Dairy products help promote a healthy weight by contributing to weight loss and weight maintenance

Figure 5.6 reflects the emotive reactions to the Healthy Weight message. This message elicited mostly positive emotions, with 68.6% of participants expressing positive Pleasure (7-9) and only 34.3% expressing positive Arousal. Approximately a third (31.3%) of the participants reacted enthusiastically to this message. Ambivalent

emotive reactions were expressed by 10.4% of participants, while 7.5% feel Indifferent and 6% expressing Sullen emotions which are indicative of no Arousal and low or average Pleasure (1-6). Whilst the intention of this message is to encourage consumers about weight maintenance, the highest percentage of Troubled emotions (4.5%) were evoked from this message, this having the opposite effect. Verbatim reasons provided for the dairy promotes a Healthy Weight message in Exhibit 5.5.

#### **AGREEMENT WITH HEALTHY WEIGHT MESSAGE**

Healthy

Healthy weight

Healthy food does maintain a good body size

I can keep a balanced diet and maintain my weight

I will remain healthy and confident

It does keep healthy and fit

it's healthy

yeah it promote healthy diet

Because what is mentioned above is true

Dairy products help promote a healthy weight by contributing to weight loss and weight maintenance

Dairy product in moderation is a vital component of our diet and we have to have it for a healthy diet.

It can help in weight maintenance and loss when used in moderation and only the less fat options

It is true, if you don't use more than your daily intake allows you to do.

My weight is a testament to it

#### **POSITIVE REACTIONS**

A nice to know fact considering the full cream products that i consume

Because dairy products are good for maintenance.

Because it promotes healthy weight

Good because I watch my weight

I enjoy dairy products even more because of this fact but it is not the primary reason. It is just an added advantage

I like to lose weight

It is good to gain weight in the right way

It makes me feel great because I'm more concerned about my weight, so knowing that dairy products will help me maintain my weight it makes me happy and also influence me to eat and drink dairy products more often

I love dairy, and want to lose weight. This is a win-win situation.

This encourages me to increase my intake

Well I'm happy with my weight and it's good to know that if I continue taking dairy products I might help maintain this very same weight for a long-long time.

Those are good news.

This means I can now limit my visits to the gym

Wow I wasn't so sure about this but now I know

I will believe because they say so

Good news, thought it increases weight

Good products for me

Happy because I like to lose weight

I'm interested to hear more about the statement, intrigued to hear more

Most fat people want to lose weight

### **NEGATIVE REACTIONS**

Disaster

Do not need to lose weight

For me losing weight is not a good thing, because I am tiny by nature

The statement is so long

I am more interested in other types of weight loss products

It's not true

Only if it is fat free otherwise it's unhealthy

There are limitations on dairy intake when trying to lose weight

False, dairy products which are full cream can make one gain weight but weigh less



dairy products can assist

**UNCONVINCED**

This statement is only conditionally true depending on the macro nutrient ratios and total calorie consumption of the individual. It can be said of any food. I have no particular feelings on it.

I was not aware about the other benefits of dairy products.

I am trying to lose weight and I was told that dairy products will not assist me

I am happy that it does, but I don't necessarily believe this notion

I am not sure if is the whole truth

I don't believe it for one moment

I don't think so if, for me it hasn't worked

I don't think they enhance weight loss

Not all products increase weight loss

It makes feel sad because I don't believe in the phrase. How does that happen?

Not sure that I believe that 100% - most diets say that dairy is not good if you want to lose Weight

Deceiving message

**DAIRY LOYALTY**

I have a lot of dairy in my diet.

Unlike other drinks with acids and alcohol milk is the best and can keep your body healthy and strong at very lower cost.

Exhibit 5.5: Reasons for expression of emotive reaction to the dairy products help promote a healthy weight message

Exhibit 5.5 indicates that the message, "dairy promotes a healthy weight" was mostly seen in a positive way. A number of participants were not completely persuaded that dairy contributes to weight management, for example arguing that weight loss is

dependent on the “total calorie consumption of the individual, it can be said of any food” and not just particularly dairy. The number of negative responses to the messages is virtually equivalent to the amount of positive reactions.

Figure 5.7 depicts the analysis of the sixth message, namely “dairy products are nutrient rich foods as they contain 10 nutrients essential for a healthy body”.

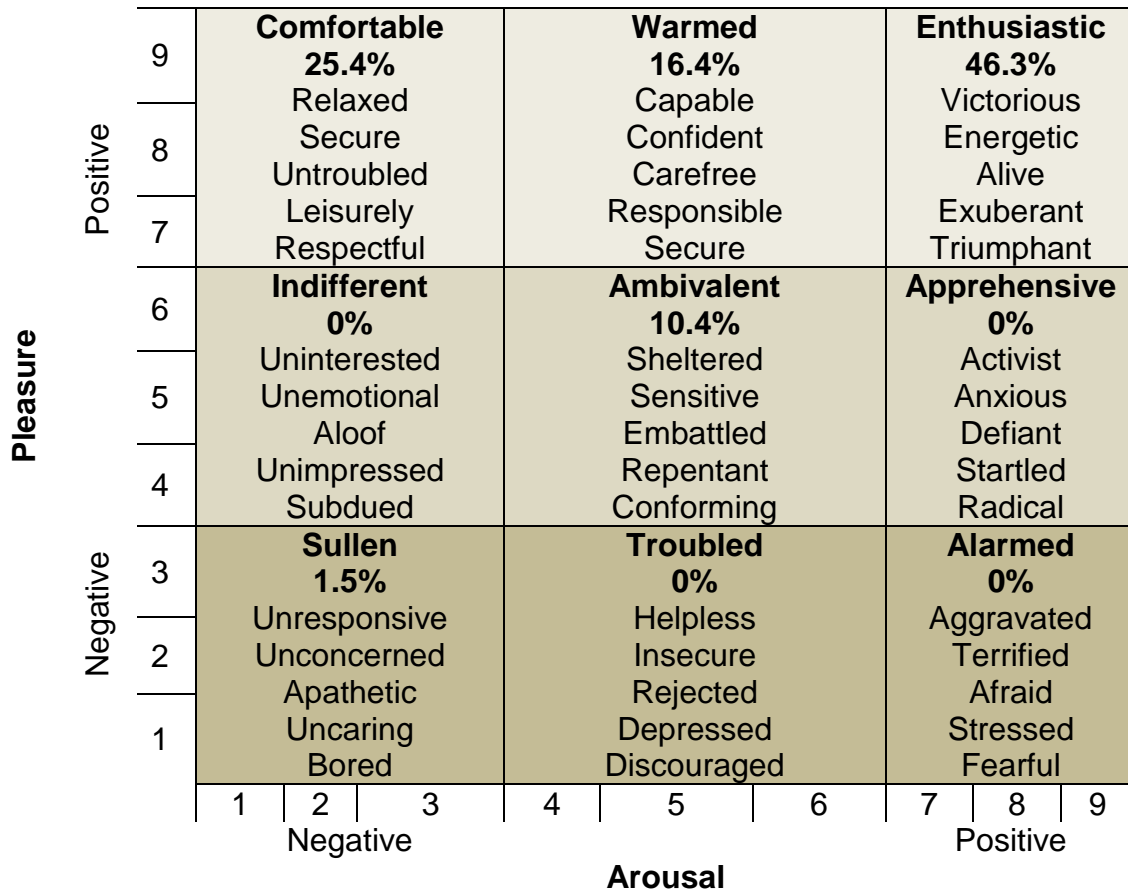


Figure 5.7: Dairy products are nutrients rich foods as they contain 10 nutrients essential for a healthy body

Figure 5.7 reflects the emotive reactions to the Nutrient Rich message. This message elicited mostly positive emotions, with 88.1% of participants expressing positive Pleasure (7-9) and only 46.3% positive Arousal. Almost half of the participants (46.3%)

reacted enthusiastically to this message. This message also resulted in Ambivalent emotions evoked from 10.4% of participants.

Verbatim reasons provided for the dairy promotes a healthy weight message are listed in Exhibit 5.6.

**AGREEMENT**

Dairy products are rich in nutrients I strongly agree

Dairy products do contain good nutrients

Dairy products have essential nutrients

I agree they are rich

I strongly agree

I'm on a right track

I've always known that dairy products are rich in nutrients

It is a good general source of nutrients and I perceive it as being more natural than processed foods.

It is what my body needs to maintain a good balance of nutrients

It's healthy

It's makes me feel healthy

Its providing me with the nourishment I require

It's true

Promotes a healthy diet, good for me

You are making sense

Was aware of this

This is the truth

This confirms what I know about dairy products

Yes, I do agree but they don't have only nutrients they also have proteins

Yes it's full of it

Because it is true

Healthy  
Healthy body  
Healthy growth

### **HEALTH MAINTENANCE**

I am interested in maintaining a good health  
Because nutrients are good for our bodies to function very well  
Continue with the intake of dairy products for a healthy me  
I want to be healthy  
Nutrition is very important  
Good health that comes from dairy  
The number 10 shows that health is looked at greatly  
I will now take more and more of dairy products for my nutrients  
It's good for me and my health for the future  
My health condition will be boosted

### **POSITIVE REACTION**

Good  
Good to hear  
Good to know  
Happy cause I have happy body which builds healthy mind  
I like dairy, so it is good that you get good nutrients from it  
I feel satisfied  
I like gaining nutrients the natural way and in a way that tastes good too unlike taking supplements.  
  
I'm all calm and feeling in control!! \*smiley\*  
It makes me happy  
It makes me feel great because dairy products will make my body be healthy and strong with nutrients  
  
Makes me feel like a sixteen year old

**UNCERTAINTY**

I am not sure

I am unsure

I don't believe this statement, sounds like you trying to sell me something

**MORE INFORMATION REQUIRED**

People don't know how nutrients are counted

True, but could specify the names of the nutrients

Would like to know which nutrients

Exhibit 5.6: Reasons for expression of emotive reaction to the dairy products are nutrients rich foods as they contain 10 nutrients essential for a healthy body

Exhibit 5.6 indicates that the majority of participants agree with the message, “dairy products are nutrient rich foods”. They feel very positive towards this message as good health is seen as an important driver for many. A few participants felt uncertain about the message and some admitted that they require more information pertaining to the nutrients.

Figure 5.8 depicts the analysis of the seventh message, namely ‘to benefit from the natural goodness of dairy, “3-A-Day” message.

<b>Pleasure</b>	Positive	9	<b>Comfortable</b> <b>23.1%</b> Relaxed Secure Untroubled	<b>Warmed</b> <b>13.8%</b> Capable Confident Carefree	<b>Enthusiastic</b> <b>29.2%</b> Victorious Energetic Alive							
		8	Leisurely Respectful	Responsible Secure	Exuberant Triumphant							
		7	<b>Indifferent</b> <b>3.1%</b> Uninterested Unemotional Aloof	<b>Ambivalent</b> <b>16.9%</b> Sheltered Sensitive Embattled	<b>Apprehensive</b> <b>1.5%</b> Activist Anxious Defiant							
	Negative	6	Unimpressed Subdued	Repentant Conforming	Startled Radical							
		5	<b>Sullen</b> <b>7.7%</b> Unresponsive Unconcerned Apathetic	<b>Troubled</b> <b>3.1%</b> Helpless Insecure Rejected	<b>Alarmed</b> <b>1.5%</b> Aggravated Terrified Afraid							
		4	Uncaring Bored	Depressed Discouraged	Stressed Fearful							
			3	1	2	3	4	5	6	7	8	9
			Negative			Arousal			Positive			

Figure 5.8: To benefit from the natural goodness of dairy, “3-A-Day”

Figure 5.8 reflects the emotive reactions to the “3-A-Day” message. This message elicited mostly positive emotions, with 66.1% of participants expressing positive Pleasure (7-9) and only 32.2% positive Arousal. Only 29.2 % reacted Enthusiastically to this message. The message evoked the highest percentage of both Ambivalent (16.9%) and Sullen (7.7%) reactions.

Verbatim reasons provided for the “3-A-Day” message are listed in Exhibit 5.7.

**AGREEMENT**

A balanced meal should have some dairy product in small amounts throughout the day or with the three main meals

I agree

I support the statement

It's true

Yes one is needed in every meal we take

Need to take dairy products 3 times a day so that I can have the nutrients I need and the other benefits; weight loss

To benefit from the natural goodness of dairy, three servings a day are needed

It is true

Good balance of dairy intake

We really need them and it's a good thing

**DISAGREEMENT**

5-6 servings a day are needed

I need only one serving per day

This statement is a lie. The body is agnostic about the source of the nutrients.

Dairy can be substituted for several other things to no detriment. This makes me feel as if my Intelligence is being insulted.

**UNCERTAINTY**

I'm not sure and also need advice

I am not really sure about that

I'm not sure

I'm not sure about that one

No other nutrients are needed

Not sure

Not sure about this

**POSITIVE ASSOCIATION TO MESSAGE**

Fine

Good

Happy

Love the idea

If that is true, I am happy because I like dairy products

I feel empowered

**NEGATIVE ASSOCIATION TO MESSAGE**

Don't like

Worried

I don't have time to drink milk three times a day

I can't afford to take in dairy three times a day

Not all of us can afford to buy dairy products, especially cheese and yoghurt. they are too expensive

It is a bit difficult to keep up!

Too much for a day

Some are allergic to dairy products

Because this is the kind of standard that most people fail to adhere to

**HEALTH**

Good nutritional information

Healthy

I want to eat a balanced diet

It's healthy

It makes me feel good ,because it advices me on how to keep a healthy body going

That I will gain more nutrition

The word natural goodness.

To obtain a healthy body you need to look after your body daily

Eating healthily daily is good for the heart

Prevention is better than cure

**NON-COMPLIANCE**

I do not adhere to that



<p>I don't eat them three times like requested but I will try to improve my intake</p> <p>It require 3 servings a day but this doesn't always happen</p> <p>Well I only take a glass of milk in the morning and Yoghurts once every few days maybe. I just don't feel I'm in control now. I guess I've learnt something and definitely will need to work some more. But otherwise I am empowered.</p>
<p><b>COMPLIANCE</b></p> <p>I have at least three servings a day</p> <p>I wouldn't mind having three servings a day of dairy products</p> <p>Will try and start this from today</p> <p>Try to eat 3 products of dairy everyday to feel energetic</p> <p>Will have to plan - currently only consuming 2 portions</p>

Exhibit 5.7: Reasons for expression of emotive reaction to the “3-A-Day” message

Exhibit 5.7 reflects that there were more positive than negative feelings towards this message as many participants agree with the message “to benefit from dairy, three servings a day are needed” and feel that it will contribute to health. Uncertainty also emerged as one of the reasons behind the emotive expressions. Some constraints could be identified, such as limitations of time or money that prevent individuals from complying with this message. Participants feel the required amount of servings per day can be limited as ‘dairy can be substituted for several other things to no detriment’. However, some participants indicated that they are willing to comply.

Table 5.1 displays a conceptual consolidation of the two-dimensional emotive profiles in reaction to the seven advertising messages.

Table 5.1: Consolidated ADSAM Message emotive profiles

		Message	Comfortable (%)	Warmed (%)	Enthusiastic (%)
Positive	7-9	1	20.3%	24.6%	49.3%
		2	27.9%	16.2%	38.2%
		3	28.4%	14.9%	43.3%
		4	28.4%	13.4%	35.8%
		5	23.9%	13.4%	31.3%
		6	25.4%	16.4%	46.3%
		7	23.1%	13.8%	29.2%
			Indifferent (%)	Ambivalent (%)	Apprehensive (%)
Pleasure	4-6	1	1.4%	4.3%	0.0%
		2	0.0%	10.3%	4.4%
		3	0.0%	10.4%	0.0%
		4	4.5%	9.0%	0.0%
		5	7.5%	10.4%	1.5%
		6	0.0%	10.4%	0.0%
		7	3.1%	16.9%	1.5%
			Sullen (%)	Troubled (%)	Alarmed (%)
Negative	1-3	1	0.0%	0.0%	0.0%
		2	1.5%	1.5%	0.0%
		3	3.0%	0.0%	0.0%
		4	7.5%	0.0%	1.5%
		5	6.0%	4.5%	1.5%
		6	1.5%	0.0%	0.0%
		7	7.7%	3.1%	1.5%

1-3 Negative	4-6 <b>Arousal</b>	7-9 Positive
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High Pleasure, High Arousal

- 1 Calcium from dairy helps build strong bones for life
- 2 Dairy helps build strong muscles, as it is a source of high-quality protein
- 3 Dairy enhances growth as it strengthens growing bones
- 4 Milk contains less fat than you think
- 5 Dairy products help promote a healthy weight by contributing to weight loss and weight maintenance
- 6 Dairy products are nutrient rich foods as they contain 10 nutrients essential for a healthy body
- 7 To benefit from the natural goodness of dairy, three servings a day are needed

Table 5.1 indicates that all messages experienced high Pleasure and varying levels of Arousal and could consequently be classified in the Comfortable, Warmed or Enthusiastic cluster. It is evident that the Calcium message (message 1), Growth (message 3) and Nutrient Rich (message 6) elicited the most positive emotions on Pleasure and Arousal, whereas the Weight Maintenance and Three-a-Day message (messages 5 and 7) elicited the least favourable emotive responses from participants.

The three messages eliciting the most positive emotions were analysed further by key demographic variables, namely LSM, gender, age and population group. Tables 5.2 to 5.5 display the subtable percentages by each emotive segment.

Table 5.2: LSM by emotive segment

Message	LSM 9-10			LSM 7-8			LSM 5-6		
	Comfortable (%)	Warmed (%)	Enthusiastic (%)	Comfortable (%)	Warmed (%)	Enthusiastic (%)	Comfortable (%)	Warmed (%)	Enthusiastic (%)
1	10.3%	24.1%	55.2%	17.6%	29.4%	52.9%	34.8%	21.7%	39.1%
3	10.3%	24.1%	48.3%	37.5%	6.3%	43.8%	45.5%	9.1%	36.4%
6	13.8%	20.7%	48.3%	18.8%	12.5%	50.0%	45.5%	13.6%	40.9%
Message	Indifferent (%)	Ambivalent (%)	Apprehensive (%)	Indifferent (%)	Ambivalent (%)	Apprehensive (%)	Indifferent (%)	Ambivalent (%)	Apprehensive (%)
	1	0.0%	10.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3	0.0%	13.8%	0.0%	0.0%	12.5%	0.0%	0.0%	4.5%	0.0%
6	0.0%	13.8%	0.0%	0.0%	18.8%	0.0%	0.0%	0.0%	0.0%
Message	Sullen (%)	Troubled (%)	Alarmed (%)	Sullen (%)	Troubled (%)	Alarmed (%)	Sullen (%)	Troubled (%)	Alarmed (%)
	1	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%
3	3.4%	0.0%	0.0%	0.0%	12.5%	0.0%	0.0%	4.5%	0.0%
6	3.4%	0.0%	0.0%	0.0%	18.8%	0.0%	0.0%	0.0%	0.0%

Participants from higher LSM group reacted with more intense positive emotions to all three messages. Despite the positive reaction among LSM 7-10, these groups also display a measure of Ambivalence with approximately one in 10 participants not expressing any intensity in either positive or negative emotion. The lower LSM groups reacted with high Pleasure but lower Arousal, resulting in almost half the participants classified in the Comfortable segment.

Table 5.3: Gender by emotive segment

	MALE			FEMALE		
Message	Comfortable (%)	Warmed (%)	Enthusiastic (%)	Comfortable (%)	Warmed (%)	Enthusiastic (%)
1	21.2%	27.3%	48.5%	19.4%	22.2%	50.0%
3	30.3%	9.1%	48.5%	26.5%	20.6%	38.2%
6	27.3%	15.2%	48.5%	23.5%	17.6%	44.1%
Message	Indifferent (%)	Ambivalent (%)	Apprehensive (%)	Indifferent (%)	Ambivalent (%)	Apprehensive (%)
1	3.0%	0.0%	0.0%	19.4%	22.2%	50.0%
3	0.0%	12.1%	0.0%	0.0%	8.8%	0.0%
6	0.0%	9.1%	0.0%	0.0%	11.8%	0.0%
Message	Sullen (%)	Troubled (%)	Alarmed (%)	Sullen (%)	Troubled (%)	Alarmed (%)
1	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%
6	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%

Table 5.3 reflects that message three elicited more Enthusiastic, but less Warmed emotions among males compared to females. Message one evoked a lower Pleasure reaction from females as can be seen in the Indifferent, Ambivalent and Apprehensive segments.

Table 5.4: Age by emotive segment

	<35			35+		
<b>Message</b>	<b>Comfortable (%)</b>	<b>Warmed (%)</b>	<b>Enthusiastic (%)</b>	<b>Comfortable (%)</b>	<b>Warmed (%)</b>	<b>Enthusiastic (%)</b>
<b>1</b>	25.5%	25.5%	45.1%	5.6%	22.2%	61.1%
<b>3</b>	32.7%	14.3%	36.7%	16.7%	16.7%	61.1%
<b>6</b>	30.6%	14.3%	46.9%	11.1%	22.2%	44.4%
<b>Message</b>	<b>Indifferent (%)</b>	<b>Ambivalent (%)</b>	<b>Apprehensive (%)</b>	<b>Indifferent (%)</b>	<b>Ambivalent (%)</b>	<b>Apprehensive (%)</b>
<b>1</b>	2.0%	2.0%	0.0%	0.0%	11.1%	0.0%
<b>3</b>	0.0%	12.2%	0.0%	0.0%	5.6%	0.0%
<b>6</b>	0.0%	6.1%	0.0%	0.0%	22.2%	0.0%
<b>Message</b>	<b>Sullen (%)</b>	<b>Troubled (%)</b>	<b>Alarmed (%)</b>	<b>Sullen (%)</b>	<b>Troubled (%)</b>	<b>Alarmed (%)</b>
<b>1</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>3</b>	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>6</b>	2.0%	0.0%	0.0%	0.0%	0.0%	0.0%

As depicted in Table 5.4, the three messages were unable to engage one third of the participants younger than 35 despite them clearly liking the messages. Older participants were clearly more stimulated by messages one and three. Message six had no definite emotive impact on approximately 20% of these participants.

Table 5.5: Population group by emotive segment

	BLACK			WCA		
<b>Message</b>	<b>Comfortable (%)</b>	<b>Warmed (%)</b>	<b>Enthusiastic (%)</b>	<b>Comfortable (%)</b>	<b>Warmed (%)</b>	<b>Enthusiastic (%)</b>
1	33.3%	26.7%	36.7%	10.3%	23.1%	59.0%
3	37.9%	6.9%	37.9%	21.1%	21.1%	47.4%
6	37.9%	10.3%	48.3%	15.8%	21.1%	44.7%
<b>Message</b>	<b>Indifferent (%)</b>	<b>Ambivalent (%)</b>	<b>Apprehensive (%)</b>	<b>Indifferent (%)</b>	<b>Ambivalent (%)</b>	<b>Apprehensive (%)</b>
1	3.3%	0.0%	0.0%	0.0%	7.7%	0.0%
3	0.0%	13.8%	0.0%	0.0%	7.9%	0.0%
6	0.0%	3.4%	0.0%	0.0%	15.8%	0.0%
<b>Message</b>	<b>Sullen (%)</b>	<b>Troubled (%)</b>	<b>Alarmed (%)</b>	<b>Sullen (%)</b>	<b>Troubled (%)</b>	<b>Alarmed (%)</b>
1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3	3.4%	0.0%	0.0%	2.6%	0.0%	0.0%
6	0.0%	0.0%	0.0%	2.6%	0.0%	0.0%

According to Table 5.5 all messages elicited high Pleasure and high Arousal emotive reactions from participants from White, Coloured and Asian population groups, resulting in feelings of Enthusiasm and Warmth. Whilst Black participants experienced high levels of Pleasure towards all the messages, limited Arousal is evident. As such, low engagement with the messages resulted in feelings of Comfort.

Section 5.2 dealt with the measurement of emotive reaction messages listed in sections 1.4.3 and 3.3.4.2. Section 5.3 presents the results of the emotive consumers' emotive reaction to the four dairy products using PrEmo.

### 5.3 EMOTIVE REACTION TO DAIRY PRODUCTS

The PrEmo research instrument was used to measure participants' emotive reaction to four dairy products, namely milk, cheese, yoghurt and maas. Both quantitative and qualitative research outputs were obtained. The quantitative results are reflected in

mean score comparative profiles, visually displayed as spider graphs. This is followed by the qualitative interpretation of the hierarchical value maps resulting from face-to-face probing interviews conducted on each product.

### 5.3.1 PrEmo analysis

Table 5.6 displays the mean score ratings of product users for the six positive and six negative PrEmo emotions elicited by each of the four dairy products. It should be noted that the ratings were captured on a 5-point measurement scale.

Table 5.6: PrEmo emotive reactions to milk, cheese, yoghurt and maas

	<b>Positive emotions</b>	<b>Negative emotions</b>
Milk	2.6	.5
Cheese	2.7	.5
Yoghurt	2.9	.5
Maas	2.1	.9
Average	2.5	.6

The average positive emotions rating of 2.5 reflected in Table 5.6 is marginally lower than ratings found in similar surveys. The ratings do, however, differ with yoghurt, cheese and milk evoking stronger positive emotions than maas. This is not a surprising finding, given that the user base for maas is lower than for milk, cheese and yoghurt. The average 0.9 rating for negative emotions felt towards maas, is also indicative of the lower user base and infrequent and nonusers experiencing less intense emotions. A more detailed analysis of these mean scores by specific emotion is visually displayed in Figures 5.9 to 5.16.



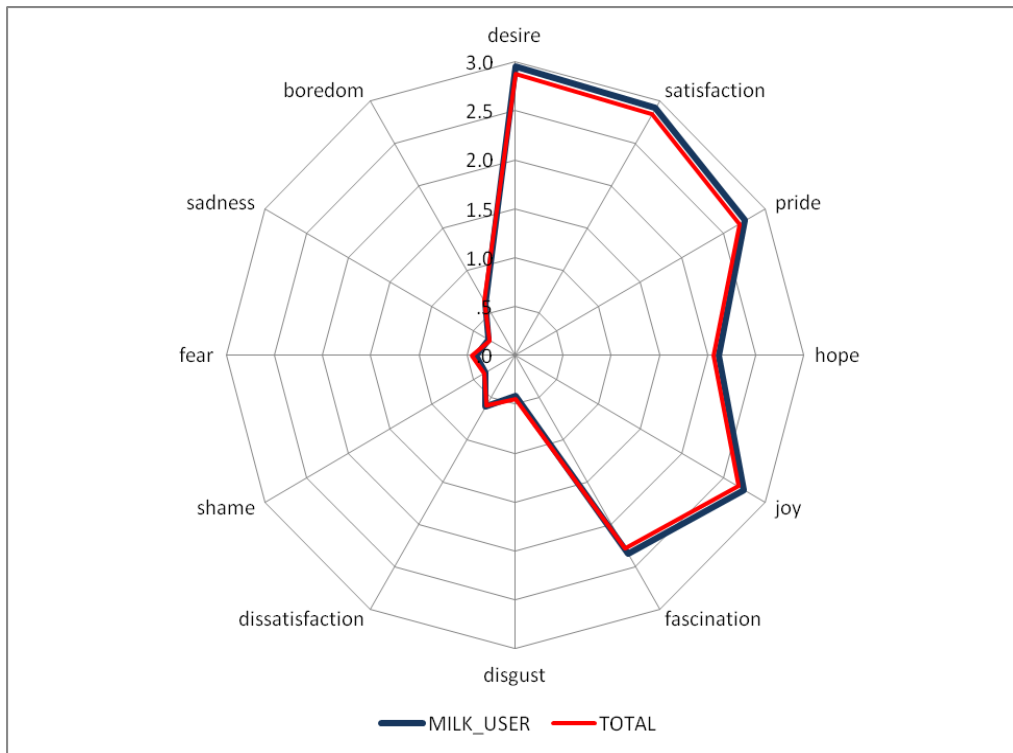


Figure 5.9: PrEmo Milk users versus Total

The user and total participant profiles reflected in Figure 5.9 are similar in shape, level and distribution, indicating the generic nature of milk with Desire, Satisfaction, Joy and Pride the salient emotions evoked. Due to a low nonuser participant base ( $n=2$ ) an analysis of users versus nonusers is not reflected as a result of insignificant findings from which no additional insights can be deducted.

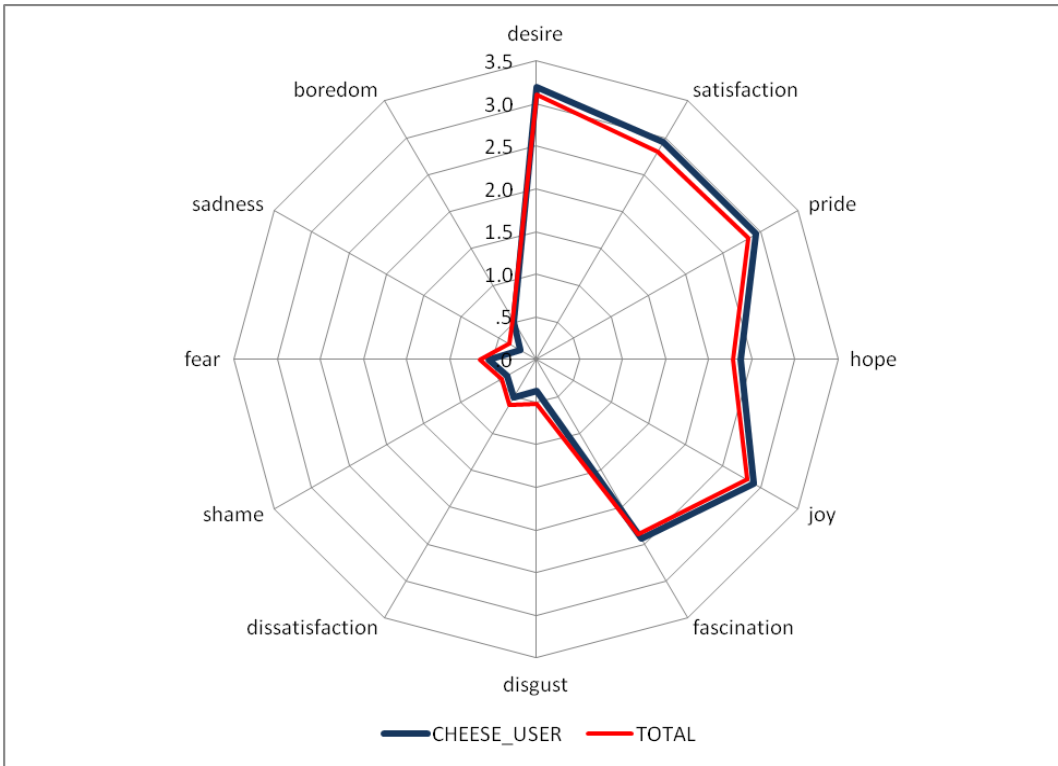


Figure 5.10: PrEmo Cheese users versus Total

The user and total participant profiles reflected in Figure 5.10 are, as with milk, similar in shape and distribution. The level, however, is marginally higher indicating slightly stronger positive emotions evoked. Desire, Satisfaction, Joy and Pride remain the salient emotions experienced.

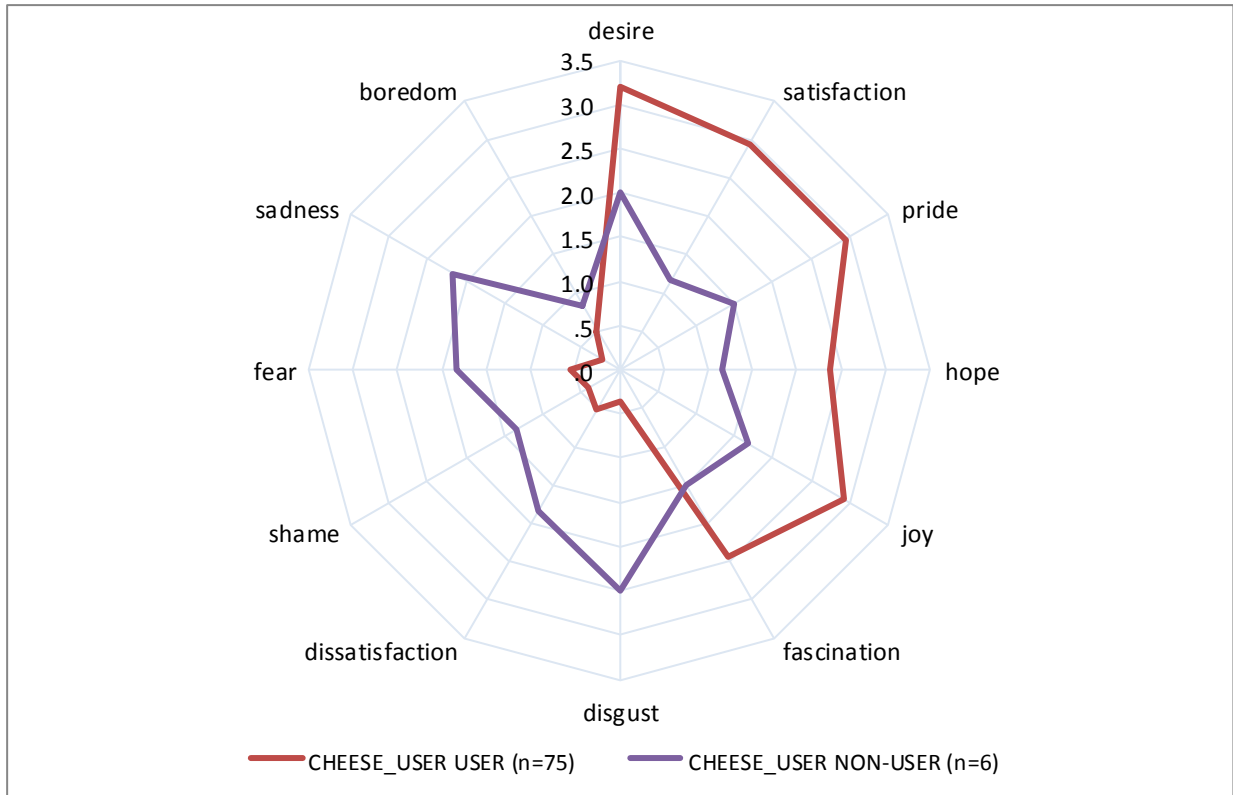


Figure 5.11: PrEmo Cheese users versus nonusers

Unlike milk, Figure 5.11 depicts that the user and nonuser profiles of cheese differ in shape, level and distribution. Cheese evokes stronger feelings of Sadness, Fear and Disgust among nonusers, whereas users experienced stronger Desire, Satisfaction, Pride and Joy as a result of being exposed to the product. Nonusers clearly experience comparable emotive intensities irrespective of the positive or negative nature of the emotions.

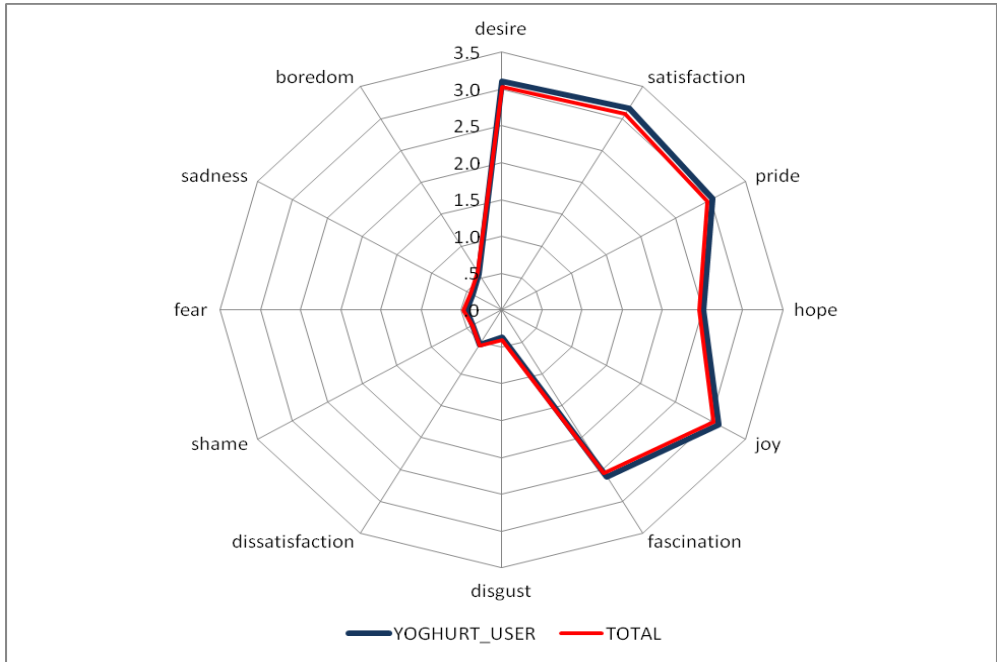


Figure 5.12: PrEmo Yoghurt users versus Total

The user and total participant profiles reflected in Figure 5.12 are, as with milk and cheese, similar in shape and distribution. The level, however, is marginally higher indicating stronger positive emotions evoked as opposed to milk and cheese. Desire, Satisfaction, Joy and Pride remain the salient emotions experienced.

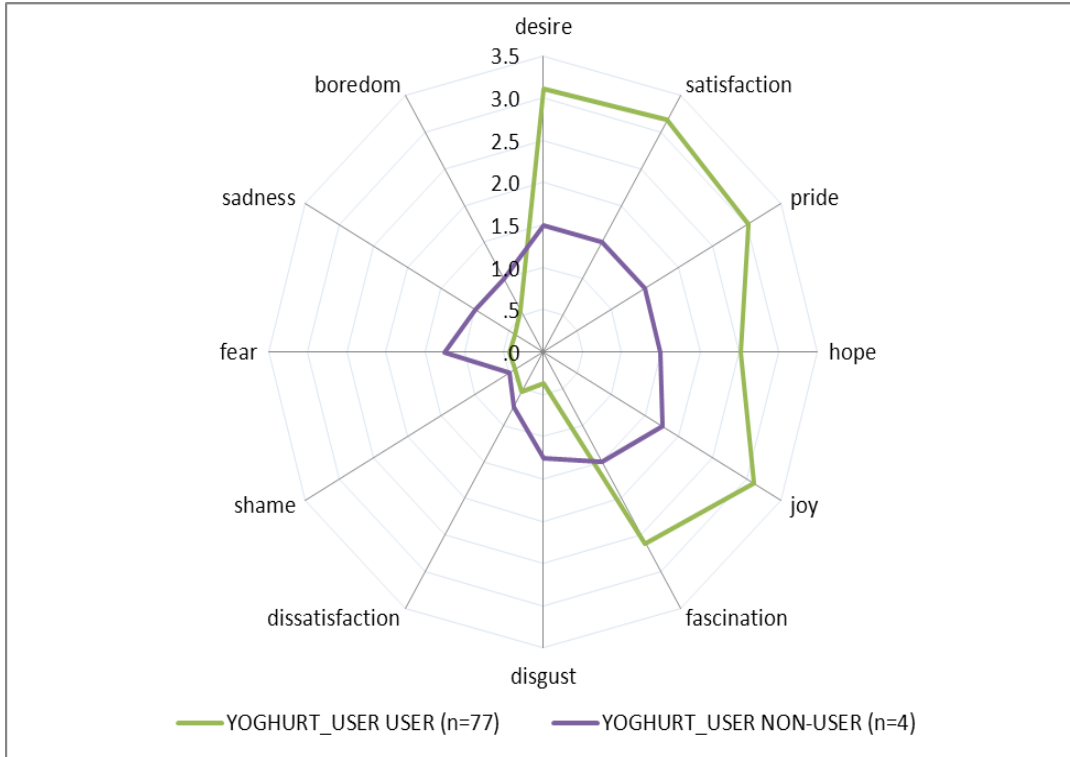


Figure 5.13: PrEmo Yoghurt users versus nonusers

Figure 5.13 indicates that the user and nonuser profiles of yoghurt differ in level and distribution. It is evident that the positive profile displays a similar shape for both users and nonusers, which indicates the more positive image that yoghurt enjoy among both users and nonusers. It is also evident that nonusers experience feelings of Fear, Disgust and Sadness when exposed to yoghurt.

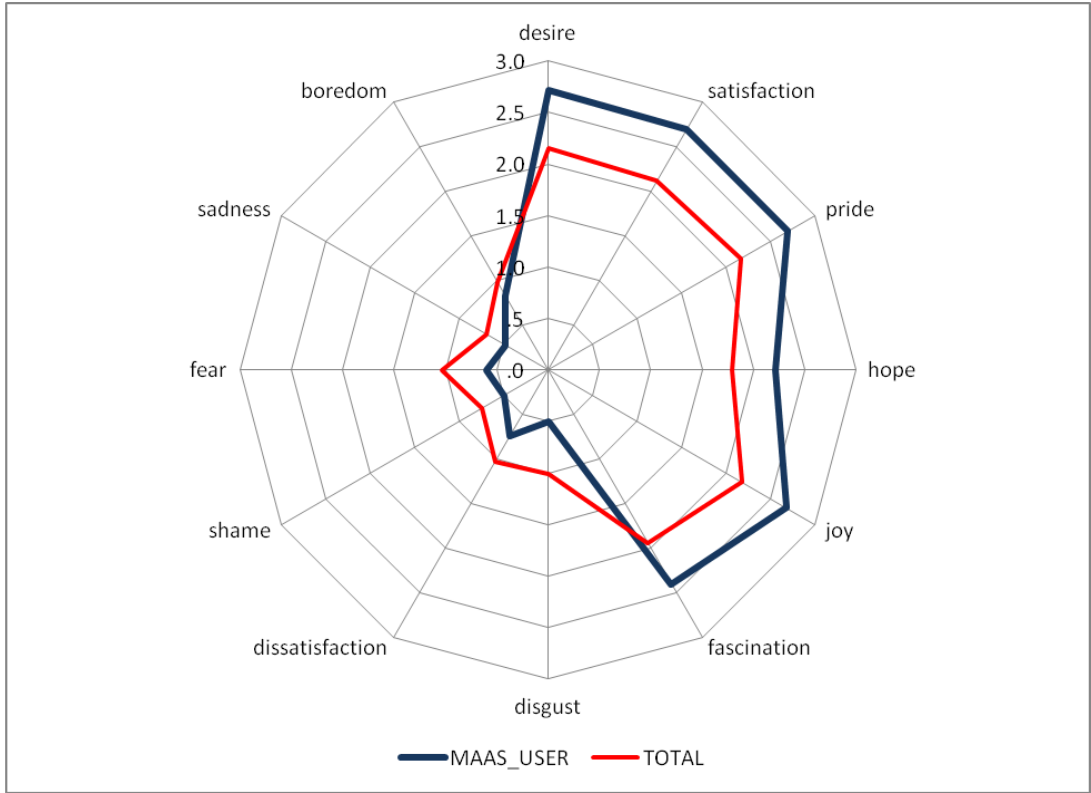


Figure 5.14: PrEmo Maas users versus Total

The user and total participant profiles portrayed in Figure 5.14 are, as with milk, yoghurt and cheese, similar in shape and distribution, specifically on Desire, Satisfaction, Pride, Hope, Joy, Fascination, Dissatisfaction, Shame and Fear. The level is substantially lower compared to that of the other products, indicating less intense positive emotions evoked by maas.

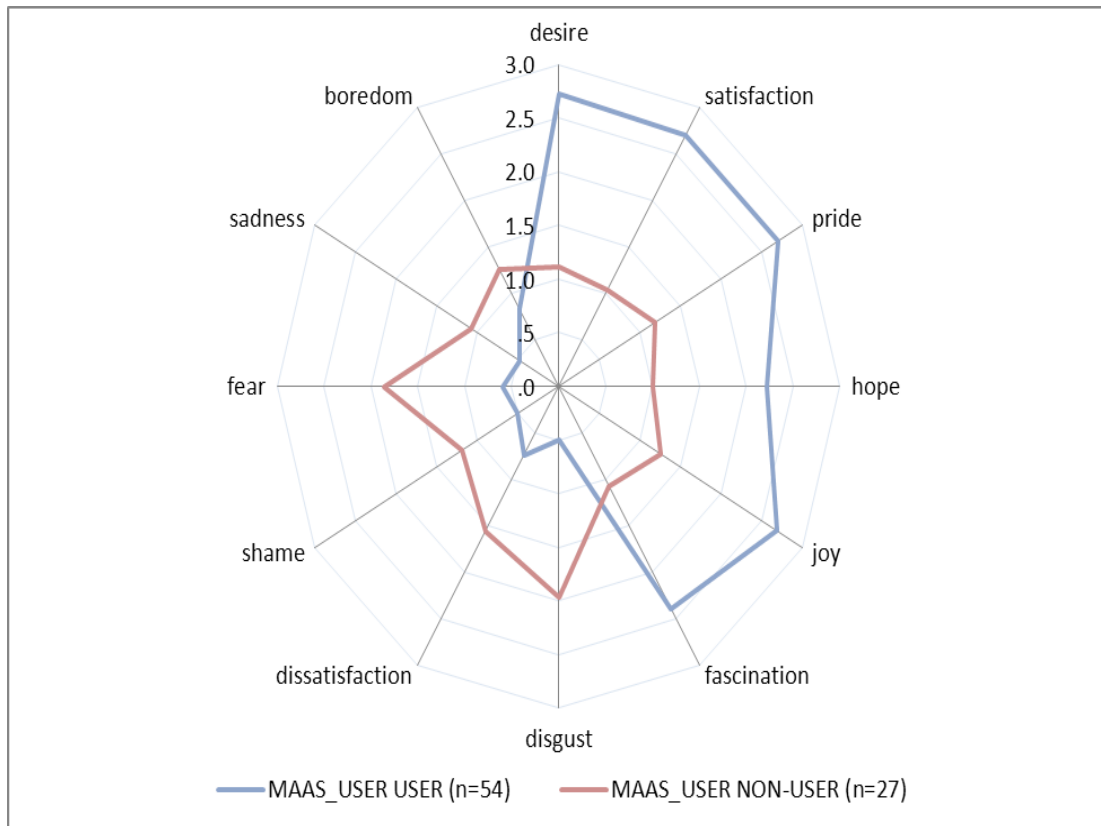


Figure 5.15 : PrEmo Maas users versus nonusers

According to Figure 5.15, the user and nonuser profiles of maas differ significantly in shape, level and distribution. However, the positive profile displays an equivalent shape for both users and nonusers with regards to Pride, Hope and Joy. Nonusers appear to experience strong negative feelings of Fear and Disgust when exposed to maas.

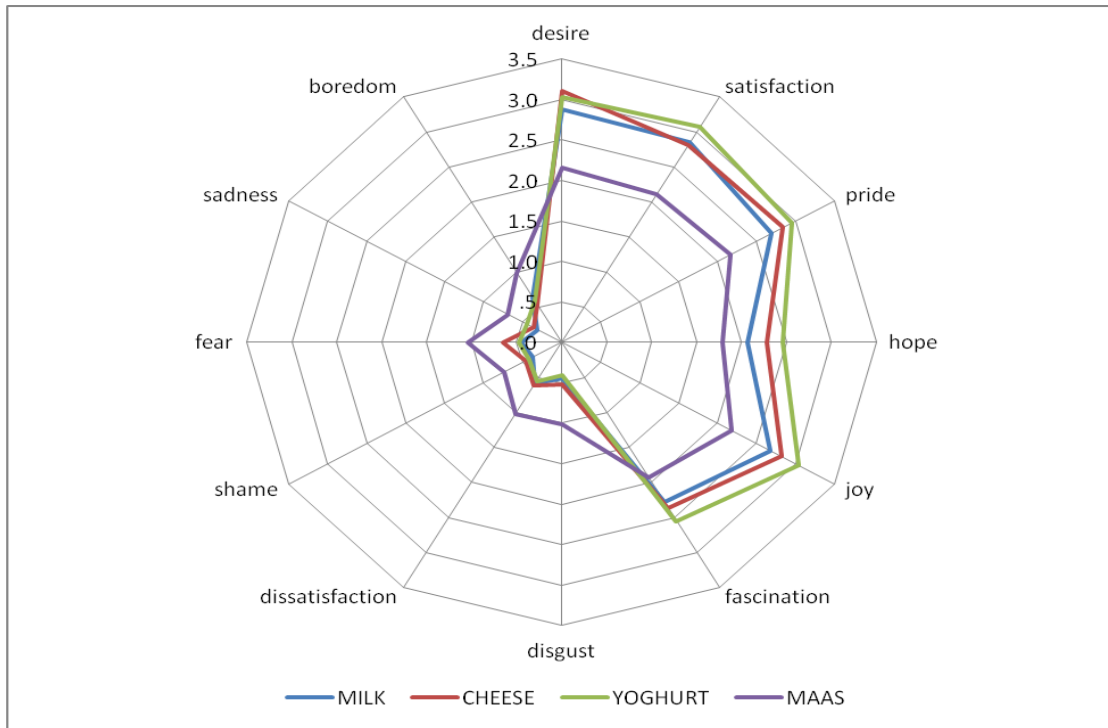


Figure 5.16: PrEmo all dairy products

Figure 5.16 conceptually illustrates the positive emotive reactions elicited by being exposed to all four dairy products. Exposure to yoghurt evoked stronger positive emotions on Satisfaction, Pride, Hope, Joy and Fascination, followed by cheese and milk. Despite maas depicting lower positive emotions, the similar shape and distribution to the other products could be indicative of a smaller maas user base, although they experience similar positive emotions to users of the other three products.

The next section will focus on the cognitive maps of dairy users relating to milk, cheese, yogurt and maas.



## **5.4 COGNITIVE REACTION TO DAIRY PRODUCTS**

As indicated in sections 4.5.3 and 3.5.3.4, the cognitive reaction of consumers to the selected dairy products is done through the Hierarchical value map (HVM). Section 5.4 displays the results of the analysis respectively for milk, cheese, yoghurt and maas.

### **5.4.1 Hierarchical Value mapping qualitative analysis**

As explained in Chapter 4, individual in-depth laddering type interviews were conducted with milk, cheese, yoghurt and maas consumers. The response protocols were captured by means of the Laddermap software and subjected to an implication matrix. This matrix indicates the number of direct and indirect associations between product attributes, functional consequences, psychosocial consequences and personal values. Figure 5.17 illustrates the cognitive maps derived from the implication matrices for Milk.

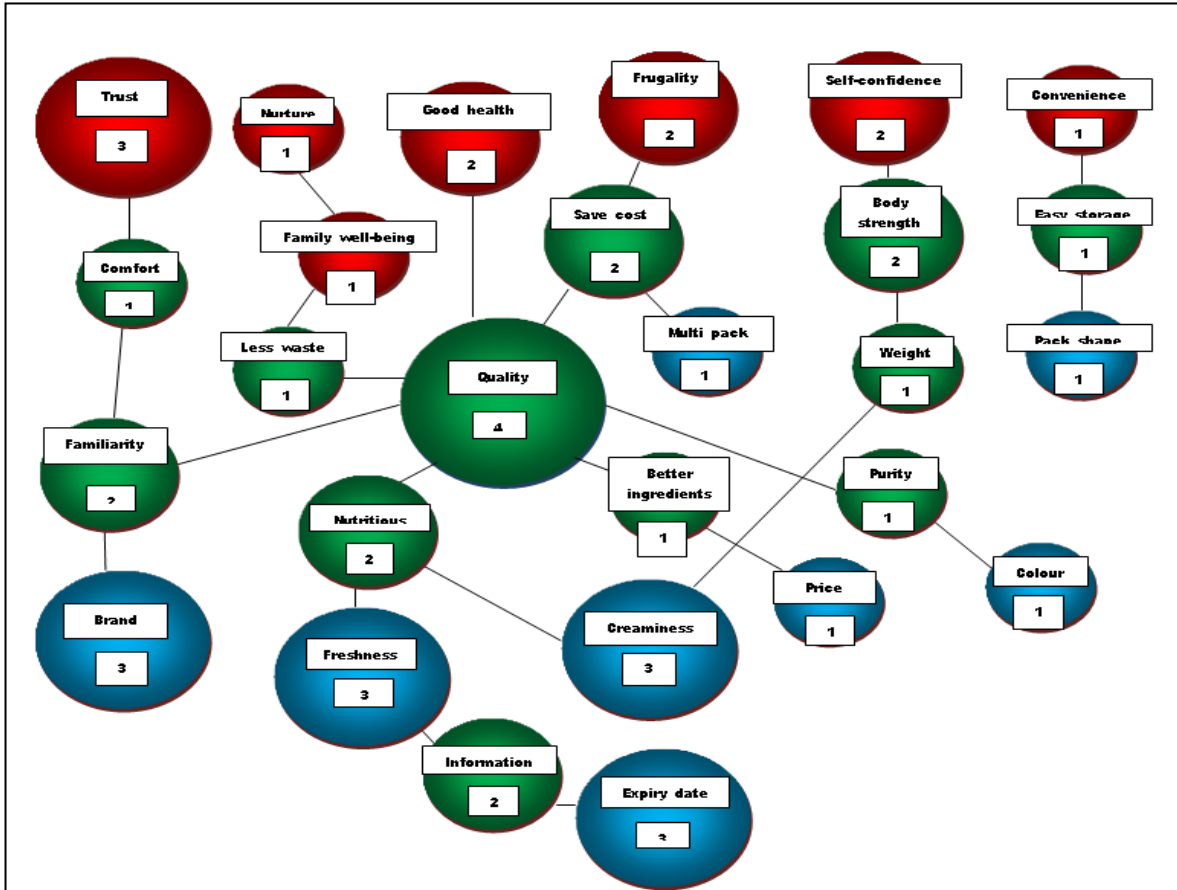


Figure 5.17: Milk Hierarchical value map

Figure 5.17 visually displays quality as a major important consequence for using milk for various reasons. Different attributes of milk are identified as representing quality, namely brand, expiry date, freshness, and creaminess. Familiarity with the brand of milk can lead directly to the experience of quality. The influence of the expiry date on perception of quality is mediated by the information it provides concerning the freshness of the product. Both freshness and creaminess indicates the nutrition that will be provided by the milk and therefore the quality of the milk. Besides creaminess being an indication about the nutrition, it is also considered important for body mass as a means to enhance body strength. Body strength is mainly driven by the need to increase self-confidence. Two additional attributes that contribute less to the perception of quality are the colour of the milk as an indicator of its pureness, and the price as an indicator of the

quality of the ingredients. In addition, the availability of multipacks contributes to cost saving, which is linked to frugality. Pack shape is an attribute that is not connected with the other ladders and is also mentioned with less frequency. The pack shape determines the ease of storage and this is important due to convenience.

The most important value driving the importance of quality is trust. Trust influences the importance of quality directly and also indirectly through the comfort experienced in using a familiar brand. Quality products are also important for those who value good health and frugality as costs are saved by purchasing quality products. The value of family well-being should not be underestimated as it is largely driven by the need to nurture.

In summary, the personal values of trust, frugality, self-confidence, good health, nurturing and convenience are considered the primary psychological drivers in milk-related consumer behaviour. The challenge remains to creatively incorporate these values in nonverbal above-the-line advertising images and stimuli.

Figure 5.18 illustrates the cognitive maps derived from the implication matrices for Cheese

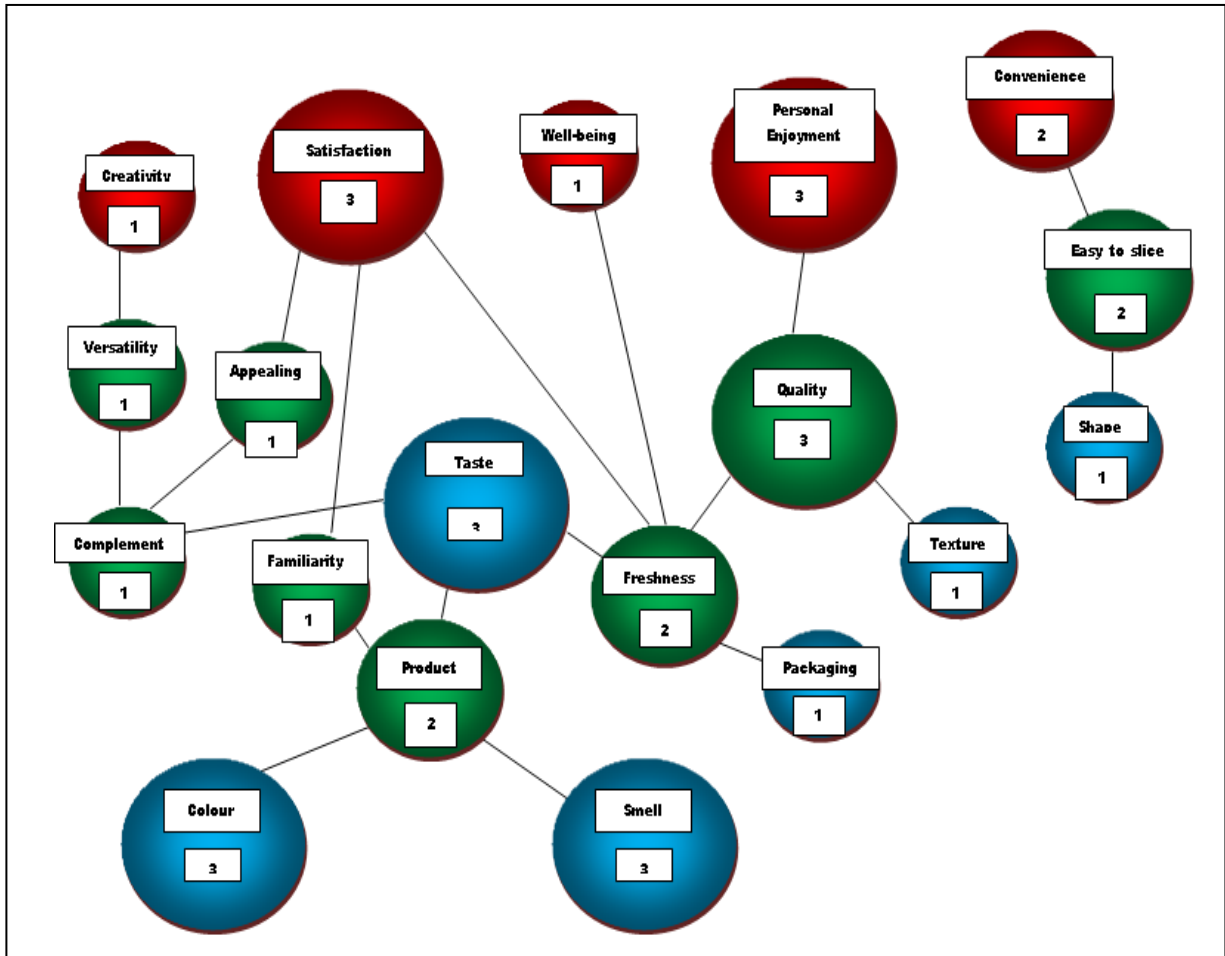


Figure 5.18 Cheese Hierarchical value map

Two values that display a strong association with cheese are that of satisfaction and personal enjoyment. Both these values are achieved through various consequences related to the taste of the cheese. Colour and smell are important attributes that lead to product identification and therefore information regarding the taste of the cheese. The taste gives an indication of the freshness and the quality and this leads to personal enjoyment. Freshness can also be influenced by the packaging and is also regarded as important for general well-being. The quality of the cheese is, in addition, influenced by its texture. The taste of cheese makes it complementary to other foods, which is appealing and ultimately satisfactory for consumers. The complementary nature also makes it a versatile food, which can also be important for those who value creativity in

presenting food. Taste also leads to satisfaction due to the freshness of the product. Another important value, with less weight than satisfaction and personal enjoyment, is convenience. Different shapes of cheese that can be easily sliced are regarded as convenient.

In summary, the personal values of satisfaction, personal enjoyment, convenience, well-being and creativity are considered the primary psychological drivers in cheese-related consumer behaviour. As with milk, future advertising and positioning of cheese should attempt to incorporate these values.

Figure 5.19 illustrates the cognitive maps derived from the implication matrices for Yoghurt.

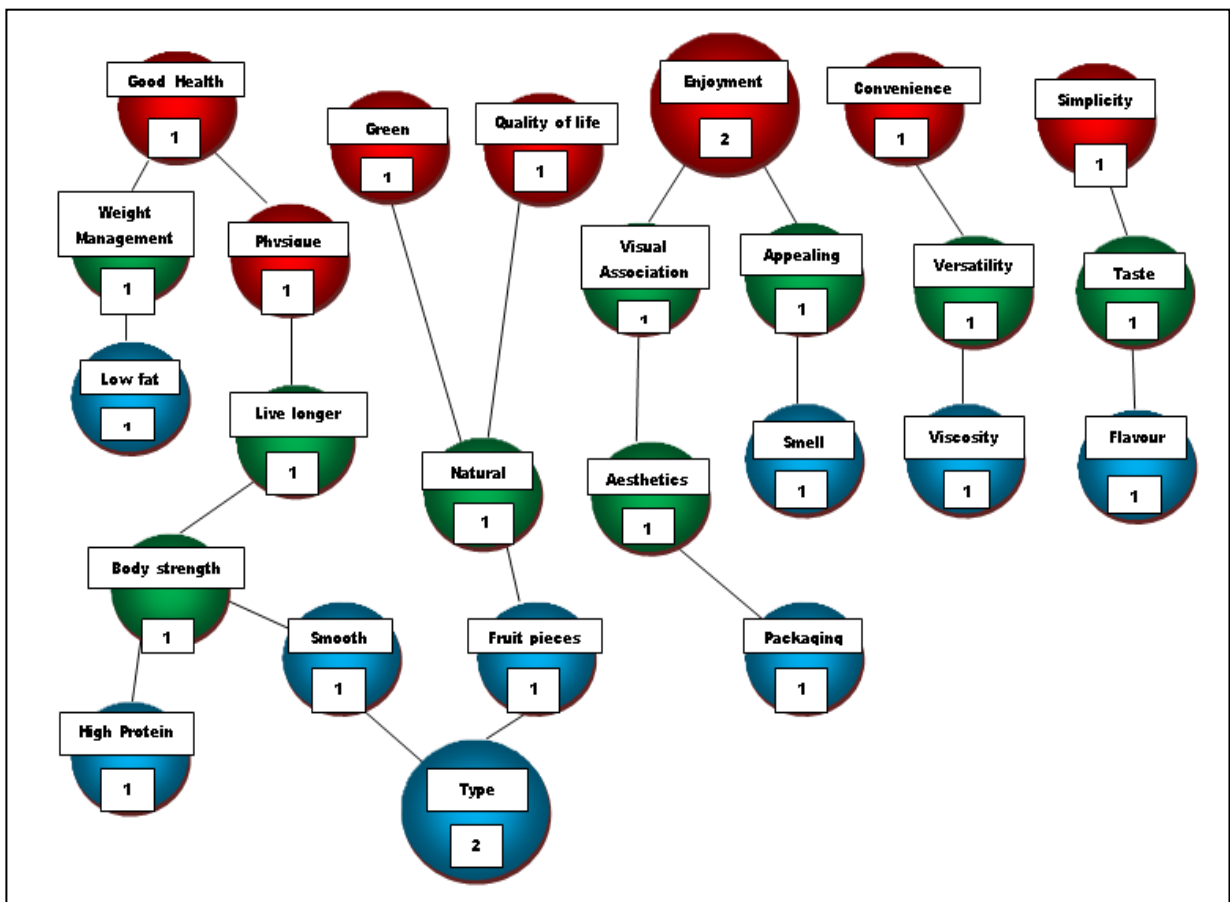


Figure 5.19 Yoghurt hierarchical value map

The value that yoghurt is most strongly associated with is sensory appeal. This value can be attained through aesthetically pleasing presentation, packaging, product and smell, with which the product can easily be associated.

Consumers identified two types of yoghurt textures, namely smooth and with fruit pieces. The product that contains fruit pieces is viewed as being more natural. Consumers with a high regard for the environment and quality of life tend to value natural products. Smooth yoghurt is believed to contain mainly milk which increases body strength and longevity. This is important both for good health and body physique. Body strength is also related to the protein content of the product. Another attribute of yoghurt considered to be valuable for good health is low fat content, which enables consumers to manage their weight.

Viscosity and flavour form two independent ladders. The viscosity of the product makes it versatile and therefore convenient. The flavour is perceived as important for those who value simplicity.

In summary, the personal values of enjoyment, good health, quality of life, convenience, simplicity and green consciousness are considered the primary psychological drivers in yoghurt-related consumer behaviour. As with other dairy products, future advertising and positioning of yoghurt should attempt to incorporate these values.

Figure 5.20 illustrates the cognitive maps derived from the implication matrices for Maas.

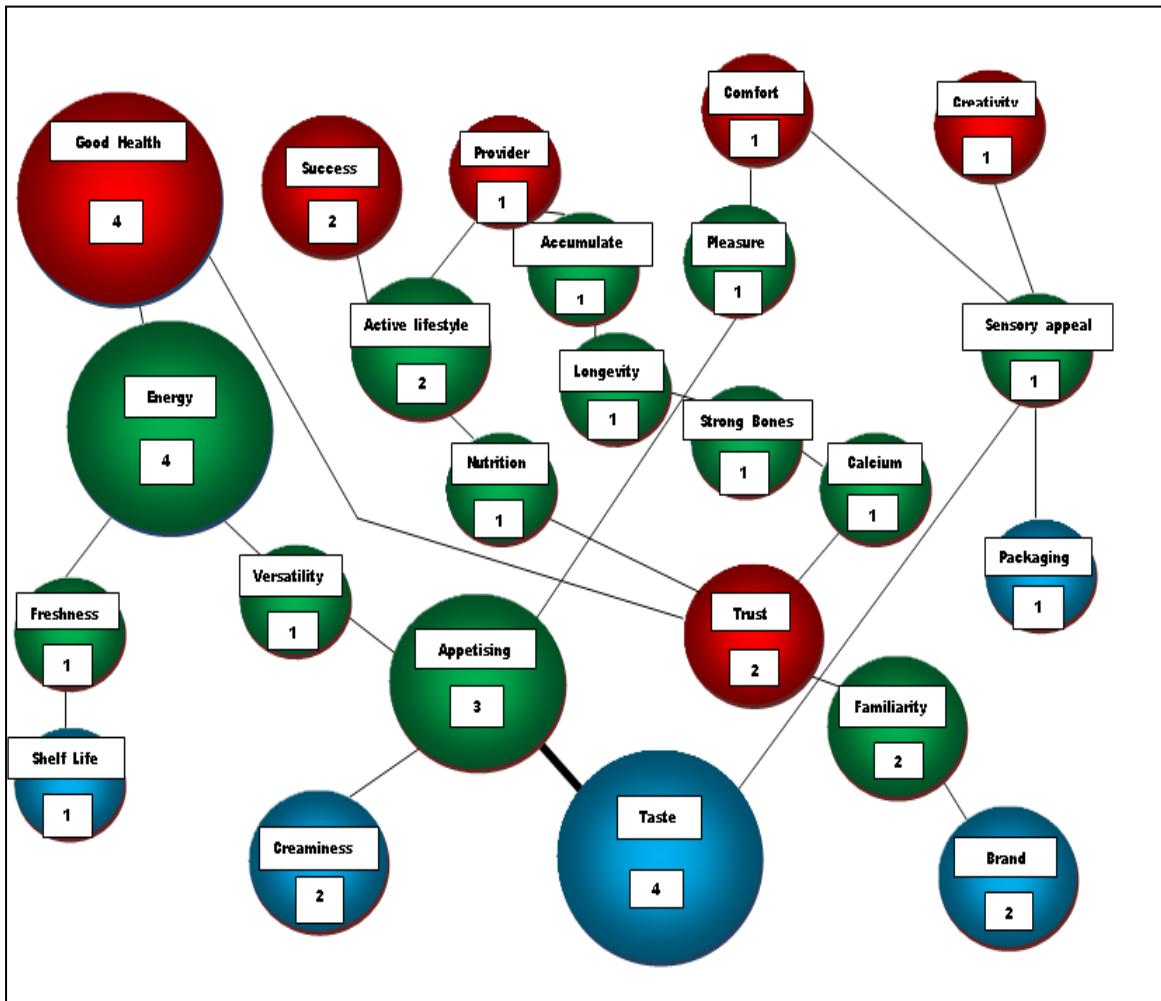


Figure 5.20 Maas Hierarchical value map

The most important value of maas is good health and the attribute that is most strongly associated with maas is its taste. Both of these are connected by various consequences. The taste and creaminess of maas is perceived to be appetising and also somewhat versatile. As a result thereof, it is perceived that larger quantities consumed lead to increased energy, which is valuable for good health. It is noteworthy that creaminess is believed to be essential for good health. Creaminess is also associated with fulfilment, both emotional and physical, satisfying the value for comfort food. Shelf life, and therefore the freshness of the maas, also impact on the energy to

be gained from the product which is again important for good health. Taste also forms a separate ladder motivated by the values of delight and creativity, and is influenced by the sensory appeal of the taste of maas. Packaging may also influence the sensory appeal to consumers.

Trust is an important value that results from familiarity with maas brands. This generally leads to the belief that the product contains calcium that will develop strong bones. Ultimately it is perceived that strong bones promote longevity, which will enable consumers to accumulate wealth. This concept is driven by the value of having to provide for the family. Trust, as a value, also leads to a general belief in nutrition that will enable an active lifestyle. This is strongly driven by the value of success and to a lesser extent to the need to be the family provider. Trust is also directly linked to the value of good health.

In summary, the personal values of good health, success, provider, comfort and creativity are considered the primary psychological drivers in maas-related consumer behaviour. The challenge remains to creatively incorporate these values in nonverbal above-the-line advertising images and stimuli.

The remainder of this chapter will focus on the impact of general mood on consumer behaviour with dairy products.



## 5.5 IMPACT OF GENERAL MOOD ON CONSUMER BEHAVIOUR WITH DAIRY PRODUCTS

Participants were exposed to a photographic image of four dairy products namely milk, cheese, yoghurt and maas after which they were required to indicate their emotive reactions on the PrEmo instrument. This instrument also requires participants to indicate their general mood on an unnumbered seven point scale. Table 5.7 displays the correlation between mood and PrEmo milk related emotions.

Table 5.7: Correlation between PrEmo Milk related emotions and general mood ( $n=81$ )

Emotions elicited	R (Spearman)	P
Desire	0.00	1.00
Satisfaction	0.25	0.02*
Pride	0.15	0.17
Hope	0.22	0.04*
Joy	0.18	0.12
Fascination	0.13	0.25
Disgust	-0.03	0.78
Dissatisfaction	-0.03	0.80
Shame	-0.06	0.59
Fear	0.03	0.77
Sadness	-0.01	0.93
Boredom	0.02	0.85

\* $p \leq 0.05$

The results of the study as depicted in Table 5.7 show that among the 12 emotions used by the PrEmo according to the Susa Group version, there are only 2 emotions that display a significant weak correlation with mood (with  $p \leq 0.05$ ). These emotions are Satisfaction and Hope. Table 5.7 furthermore displays positive emotions showing higher correlations with general mood state whilst the mood state elicits weaker correlations with negative emotions.

In order to further investigate these correlations, a correlation analysis of general mood by population group was conducted, displayed Table 5.8.

Table 5.8: Correlation between PrEmo Milk related emotions and general mood by population group

Emotions	Black		Coloured		Indian		White		Total	
	R	P	R	P	R	P	R	P	R	P
Desire	0.36	0.83	-0.20	0.60			0.07	0.69	0.00	0.98
Satisfaction	0.22	0.18	0.24	0.54	-	-	0.45	0.01*	0.25	0.02*
Pride	0.19	0.23	0.10	0.79	-	-	0.27	0.15	0.15	0.17
Hope	0.19	0.24	-0.08	0.84	-	-	0.46	0.01*	0.22	0.05*
Joy	0.24	0.15	0.12	0.77	-	-	0.28	0.13	0.18	0.12
Fascination	0.03	0.85	-0.06	0.87	-	-	0.42	0.02*	0.13	0.24
Disgust	0.07	0.67	-0.17	0.65	-	-	-0.07	0.71	-0.03	0.78
Dissatisfaction	-0.02	0.89	-0.45	0.22	-	-	0.05	0.79	-0.03	0.79
Shame	-0.04	0.82	-0.05	0.89	-	-	0.03	0.89	-0.06	0.58
Fear	0.08	0.61	0.40	0.29	-	-	-0.11	0.55	0.03	0.71
Sadness	0.04	0.79	0.00	1	-	-	-0.08	0.68	-0.01	0.93
Boredom	0.06	0.74	0.34	0.37	-	-	-0.22	0.25	0.02	0.85

\*p ≤ 0.05

This analysis reveals that significant moderate correlations between satisfaction, hope and fascination are apparent in the White population group. It is clear that this population group displays most of the variance explained in the overall significant correlations between mood and satisfaction and hope.

Table 5.9: Correlation between PrEmo Cheese related emotions and general mood

Emotions elicited	R (Spearman)	P
Desire	-0.04	0.70
Satisfaction	0.02	0.75
Pride	0.04	0.17
Hope	0.02	0.90
Joy	0.10	0.37
Fascination	-0.06	0.57
Disgust	0.15	0.20
Dissatisfaction	0.13	0.26
Shame	0.01	0.90
Fear	0.11	0.34
Sadness	0.14	0.23
Boredom	0.22	0.05*

\* $p \leq 0.05$

Table 5.9 indicates that mood has little or no effect on the emotions as measured by the PrEmo scale. Only Boredom ( $p=0.05$ ) displays a significant weak association with mood.

Table 5.10: Correlation between PrEmo Cheese related emotions and general mood by population group

Emotions	Black		Coloured		Indian		White		Total	
	R	P	R	P	R	P	R	P	R	P
Desire	0.01	0.49	-0.38	0.31			-0.01	0.96	-0.04	0.70
Satisfaction	0.10	0.54	-0.36	0.33	-	-	0.03	0.87	0.02	0.81
Pride	0.09	0.61	-0.38	0.31	-	-	0.17	0.38	0.04	0.73
Hope	-0.05	0.78	-0.38	0.31	-	-	0.43	0.02*	0.02	0.89
Joy	0.10	0.53	-0.15	0.70	-	-	0.15	0.45	0.12	0.28
Fascination	-0.11	0.51	-0.23	0.55	-	-	0.07	0.73	-0.07	0.57
Disgust	0.07	0.68	0.47	0.20	-	-	0.23	0.23	0.15	0.19
Dissatisfaction	0.13	0.46	0.19	0.62	-	-	0.12	0.52	0.13	0.26
Shame	0.05	0.77	-0.15	0.69	-	-	0.09	0.64	0.01	0.90
Fear	0.03	0.84	0.42	0.26	-	-	0.22	0.25	0.11	0.34
Sadness	0.06	0.72	0.41	0.26	-	-	0.26	0.14	0.14	0.23
Boredom	0.21	0.21	0.09	0.81	-	-	0.18	0.34	0.22	0.05*

\* $p \leq 0.05$

Table 5.10 confirms the weak correlation with only hope displaying a weak correlation in the White pop group.

Table 5.4 reveals that among the 4 population groups, only in Whites, Hope ( $p = 0.01$ ) displays a significant weak correlation with mood. In contrast to table 5.3 no overall significant association with mood among all population groups is apparent in Table 5.4

Table 5.11: Correlation between PrEmo Yoghurt related emotions and general mood

<b>Emotions elicited</b>	<b>R (Spearman)</b>	<b>P</b>
Desire	0.11	0.32
Satisfaction	0.12	0.29
Pride	0.22	0.06
Hope	0.15	0.18
Joy	0.21	0.06
Fascination	0.13	0.25
Disgust	0.00	0.97
Dissatisfaction	-0.03	0.82
Shame	-0.15	0.20
Fear	-0.02	0.84
Sadness	0.00	0.95
Boredom	0.08	0.49

\* $p \leq 0.05$

The results of the study as depicted in Table 5.11 show that among the 12 emotions used by the PrEmo according to the Susa group version, there is no observed significant association with mood. However, Pride ( $p=0.06$ ) and Joy ( $p=0.06$ ) display a value that is close to be significant.

Table 5.12: Correlation between PrEmo Yoghurt related emotions and general mood by population group

Emotions	Black		Coloured		Indian		White		Total	
	R	P	R	P	R	P	R	p	R	P
Desire	0.01	0.95	-0.02	0.96			0.28	0.14	0.11	0.32
Satisfaction	0.00	0.97	-0.17	0.66	-	-	0.33	0.08	0.12	0.29
Pride	0.16	0.34	0.04	0.93	-	-	0.38	0.04*	0.21	0.06
Hope	0.01	0.96	0.05	0.89	-	-	0.48	0.01*	0.15	0.18
Joy	0.09	0.61	-0.01	0.99	-	-	0.52	0.00*	0.21	0.06
Fascination	0.07	0.69	0.07	0.85	-	-	0.32	0.09	0.13	0.25
Disgust	-0.08	0.66	0.18	0.65	-	-	0.13	0.51	0.00	0.97
Dissatisfaction	0.06	0.73	0.01	0.98	-	-	-0.07	0.71	-0.03	0.82
Shame	-0.24	0.16	0.09	0.81	-	-	-0.01	0.96	-0.15	0.20
Fear	-0.04	0.78	0.18	0.65	-	-	0.01	0.99	-0.02	0.84
Sadness	-0.01	0.99	0.17	0.67	-	-	0.01	0.95	0.01	0.95
Boredom	0.21	0.22	0.17	0.67	-	-	-0.05	0.79	0.08	0.49

\*p ≤ 0.05

The results of the analysis, as depicted in Table 5.12, show that among the 12 emotions, there are 3 emotions that display a significant correlation with mood. These include Pride (p = 0.04), Hope (p = 0.01) and Joy (p=0.00). These emotions are applicable only to the Whites.

Table 5.13: Correlation between PrEmo Maas related emotions and general mood

Emotions elicited	R (Spearman)	P
Desire	0.16	0.17
Satisfaction	0.20	0.07
Pride	0.30	0.01*
Hope	0.26	0.02*
Joy	0.27	0.02*
Fascination	0.18	0.13
Disgust	-0.09	0.42
Dissatisfaction	-0.002	0.98
Shame	-0.06	0.60
Fear	-0.04	0.73
Sadness	0.15	0.20
Boredom	0.05	0.69

\* $p \leq 0.05$

Maas is probably the most interesting product under investigation since it displays the maximum emotions associated with mood. The results of the analysis, as depicted in Table 5.13, show that among the 12 emotions, there are 3 emotions that display a significant correlation with mood (with  $p \leq 0.05$ ). These include Pride ( $p = 0.01$ ), Hope ( $p = 0.02$ ) and Joy ( $p=0.002$ ). Satisfaction ( $p=0.07$ ), Desire ( $p=0.17$ ) and Fascination also show closely significant association with mood.

Table 5.14: Correlation between PrEmo Maas related emotions and general mood by population group

Emotions	Black		Coloured		Indian		White		Total	
	R	P	R	P	R	P	R	p	R	P
Desire										
Satisfaction	0.07	0.68	0.09	0.80	-	-	0.23	0.23	0.20	0.07
Pride	0.33	0.05*	0.17	0.66	-	-	0.31	0.10	0.30	0.01*
Hope	0.19	0.26	0.33	0.39	-	-	0.29	0.13	0.26	0.02*
Joy	0.31	0.06	0.33	0.39	-	-	0.15	0.44	0.27	0.02*
Fascination	0.20	0.25	0.06	0.87	-	-	0.08	0.66	0.17	0.13
Disgust	0.01	0.94	0.11	0.78	-	-	-0.05	0.80	-0.09	0.42
Dissatisfaction	-0.02	0.99	0.27	0.47	-	-	0.13	0.49	0.00	0.98
Shame	-0.11	0.76	-1.19	0.60	-	-	0.18	0.34	-0.06	0.60
Fear	0.02	0.87	0.30	0.42	-	-	-0.04	0.72	-0.04	0.73
Sadness	0.20	0.24	0.09	0.81	-	-	0.29	0.24	0.15	0.20
Boredom	0.06	0.69	0.08	0.83	-	-	0.20	0.29	0.05	0.69

\* $p \leq 0.05$

Table 5.14 goes further in the analysis and tries to establish whether there is a significant association between mood, the 12 emotions and the population groups. This analysis reveals that among the 4 population groups, only in Black people Pride ( $p = 0.05$ ) displays a significant correlation with mood. Besides, Joy ( $p=0.06$ ) shows a closely significant association with mood. However, Pride ( $p = 0.01$ ), Hope ( $p = 0.02$ ) and Joy ( $p=0.002$ ) show an overall significant association with mood in all population groups

## 5.6 CHAPTER SUMMARY

Chapter 5 reported on the use of the AdSAM to measure the participants' emotive reactions to the seven messages. The analysis reveals that messages 1, 3 and 6 were the most appealing .They elicited both high levels of Pleasure and Arousal related emotions, whilst the Weight maintenance and Three-a-day messages (messages 5 and 7) elicited less impactful emotive reactions from participants.

With regards to the emotive reactions to the four dairy products included for the purposes of this study, the PrEmo analysis reveals that the products do differ with yoghurt, cheese and milk evoking stronger positive emotions than maas.

In terms of cognitive reactions to the dairy products under investigation, the study reveals that these products' consumption is driven by different values. Trust, frugality, self-confidence, good health, nurturing and convenience are considered the primary psychological drivers in milk-related consumer behaviour. The personal values of satisfaction, personal enjoyment, convenience, well-being and creativity are considered the primary psychological drivers in cheese-related consumer behaviour whereas the most influential drivers of yoghurt consumption are enjoyment, good health, quality of life, convenience, simplicity and green consciousness. Finally, maas consumption is driven by the values of good health, success, provider, comfort and creativity.

Correlation analysis reveals that mood does not impact equally on consumers for each of the dairy products. Population groups react differently to the products.

With regards to milk, the White population group displays most of the variance explained in the overall significant correlations between mood and satisfaction and hope. The analysis confirms similar observations with cheese and yoghurt.

The analysis reveals that only in Black people Pride displays a significant correlation with mood. Besides, Joy shows a closely significant association with mood. Population groups, especially the White and Black population groups appear to be very sensitive targets for any dairy advertising campaigns.

Chapter 6 deals with the research findings, conclusions and recommendations.



# **CHAPTER 6: RESEARCH FINDINGS, CONCLUSION AND RECOMMENDATIONS**

## **6.1 INTRODUCTION**

While a large amount of literature on the South African Dairy Industry is available, no published academic work was found that focused on the emotive reactions to the consumer education project of the South African dairy industry.

This research report, comprising six chapters, investigated the emotive reactions of the South African dairy consumers to the four dairy products and the seven communication messages. It also looked at the cognitive reaction of those consumers to the four dairy products.

Chapter 1 provided the definition of some basic concepts for a better understanding of the topic under investigation. Thereafter, it provided the background and motivation for the research. The orientation of the research in terms of the purpose of the research problem statement, the objectives as well as contribution of the study was covered.

Chapters 2 and 4 are the literature review for this research. Chapter 2 explored the concept of consumer behaviour. The origins of the concept and its origins were also covered. In the same chapter, consumer decision making, the associated models received particular attention. It was also deemed necessary to cover the concept of advertising in terms of its five functions. The last section dealt with emotions in advertising.

Chapter 3 dealt with the context of the current research. In its first part, it presented a large disparity in consumption and growth levels of dairy products between large developed and developing countries. In a country such as South Africa, with a low level of dairy consumption and growth, dairy campaigns are really necessary.

A distinction between generic marketing and commercial brand advertising was provided. Chapter 3 also offered a review of existing literature on dairy campaigns in selected countries, namely Australia, the UK and The USA. Finally, an in-depth description of the South African dairy industry was done.

In Chapter 4 the research design and methodology employed in this research were explained. The discussion revolved around the research strategy that was adopted, the data collection methods, data analysis, research quality and delimitations and research ethics.

Chapter 5 presented the data analysis using the AdSAM, the PrEmo and the HVMs. It is important to remember that AdSAM measures the emotional reaction to messages, PrEmo measures emotional reactions to products and HVM measures cognitive reaction to products. The data included descriptive statistics and, in this regard, the research measured the impact of mood on consumer behaviour with the four dairy products.

The current chapter summarises the findings, conclusions and recommendations for possible further research. The summary of the findings includes a discussion of the purpose of the research, a description of the methodology used in this research, how the purpose and the associated objectives were achieved and an explanation of the results of the data analyses.

The main sections of this chapter are depicted in Figure 6.1.

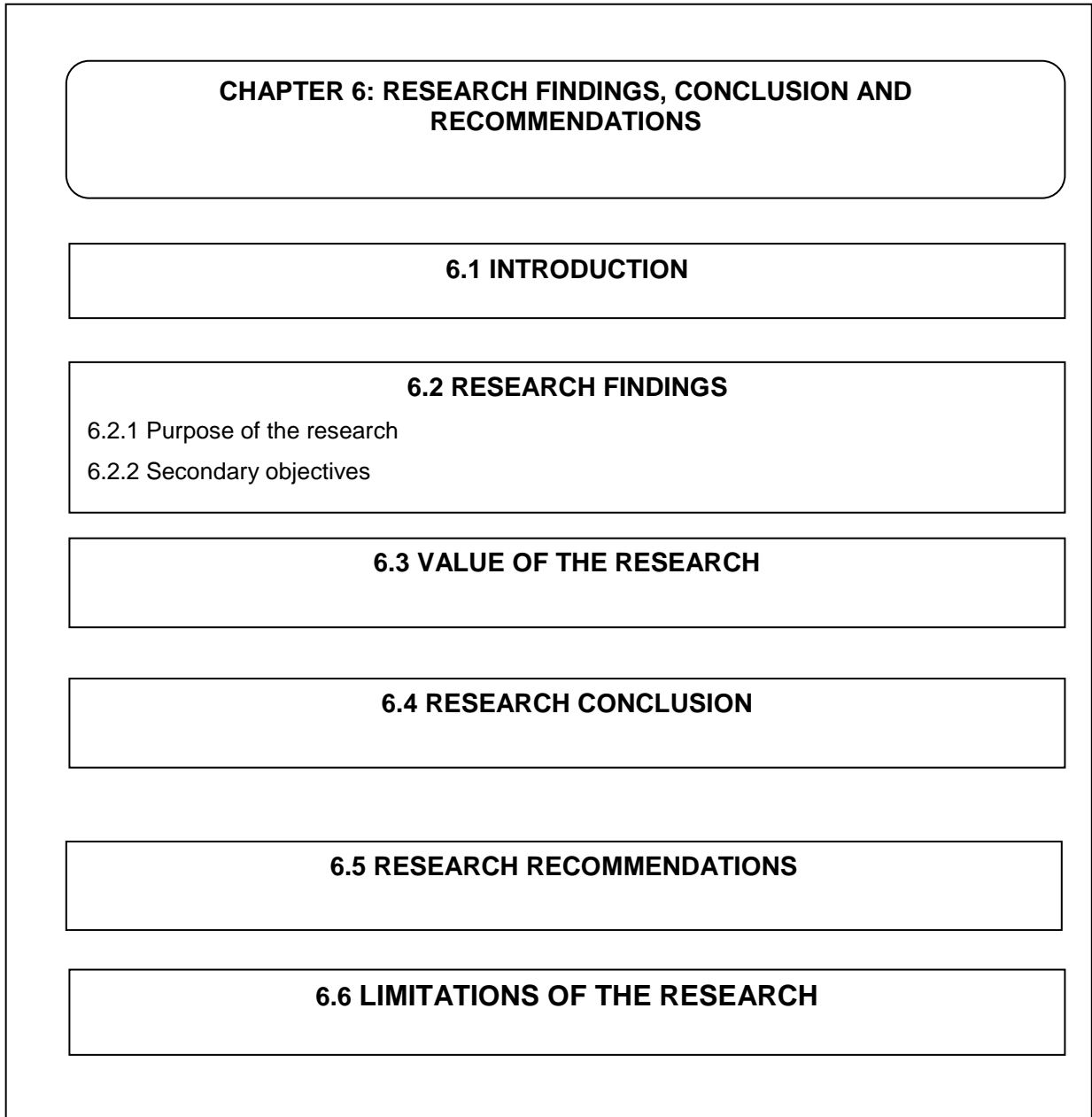


Figure 6.1: Layout of Chapter 6

## 6.2 RESEARCH FINDINGS

The overall aim of this research was to provide strategic insight into consumer reaction to four dairy products (milk, cheese, yoghurt and maas) and the seven messages aiming to inform South African consumers of the health and nutritional benefits and advantages of milk and other dairy products. These insights were ascertained through eliciting the emotions and cognitive structures associated with each of the products. In addition, the importance and preference of and between the messages were investigated.

This research was conducted within a mixed paradigm and exploratory and descriptive research have been applied. Consumer attitudes and feeling-related reactions associated with each of the following seven communication messages were assessed through the Self-Assessment Manikin (AdSAM) instrument. The reactions to the dairy products were gathered by means of the Product Emotion Measurement (PrEmo) instrument, while the cognitive reactions to the dairy products data were obtained through the Hierarchical Value Mapping interviews (HVMs) instrument. As indicated in Chapter 4, sections 4.5.1.2, 4.5.3.3 respectively, a significant number of recent studies have utilised these measurement instruments.

The Statistical Package for the Social Science (SPSS) scoring software was used to perform and calculate all statistical procedures the Spearman correlation coefficient ( $r$ ) between mood and consumer attitudes.

The research population (the actual number of respondents) of each of the AdSAM and PrEmo consisted of 81 South African dairy consumers located in the Gauteng provinces. The sample elements had different status and background (age, population group, gender). In terms of media, the sample members listen to all South African radio stations; they are viewers of SABC 1, 2, 3 and e-tv, and are exposed to outdoor advertising. The HVM used only 19 respondents. The research made use of quota sampling as it discussed in Chapter 4, section 4.4.4.1.

In Chapter 6, data collected from the instruments were presented, described and analysed. The next sections provide a synthesis of the literature review of the research and the findings in Chapter 6 in relation to the research objectives of the study.

### **6.2.1 Purpose of the research**

As stated in Chapter 1, section 1.4.1, the overall aim of this research was to provide strategic insight into consumer reaction to four dairy products (milk, cheese, yoghurt and maas) and the seven messages aiming to inform South African consumers of the health and nutritional benefits and advantages of milk and other dairy products. Two literature reviews were conducted. The first was conducted on Consumer behaviour (Chapter 2). The second was performed regarding an overview of the South African dairy industry and generic marketing (Chapter 3) with the intention of having a better understanding of this particular industry. This chapter indicated powerful dairy campaigns undertaken in Australia, the United Kingdom and in the USA.

The secondary objectives stated in Chapter 1, section 1.4.3, contributed to the achievement of the purpose of the research. The next section will focus on how these objectives were achieved.

### **6.2.2 Secondary objectives**

**(1) To determine consumer attitudes and feeling-related reactions associated with each of the following seven communication messages**

The first objective was addressed in Chapter 4, sections 4.5.1 where the AdSAM instrument was defined. It is a pictorial rating system used to obtain self-assessment ratings of experienced primary emotions on the dimensions affected valence or

pleasure, arousal or dominance dimensions to an advertisement. According to the Pleasure, Arousal and Dominance (PAD) approach of general psychology of emotion research, the full spectrum of human emotion can be described by three independent, bipolar dimensions, namely pleasure, arousal and dominance (Poels & Dewitt, 2006).

Since its development in the 1980s, the AdSAM has been used in numerous psychophysiological studies. The AdSAM instrument was identified as the most appropriate means of assessing consumers' emotional response to advertising messages. This was based on various considerations, including the fact that has been validated over the past 25 years in both qualitative and quantitative research and it has been widely applied in current research projects in over 30 countries.

In Chapter 5, section 5.2.2, the results of the measurement of consumer emotive reactions to each of the seven messages are discussed. The analysis reveals the following results.

Overall, the seven existing Milk SA Consumer Education Project messages resulted in high levels of Pleasure related attitudes. It was found that the messages differed with regard to Arousal related attitudes. It can consequently be concluded that, whilst well-liked by the majority of consumers, certain messages are less successful in engaging and ultimately persuading consumers.

The Calcium message (message one), Growth message (message three) and Nutrient Rich message (message six) elicited both high levels of Pleasure and Arousal related emotions, whilst the Weight maintenance and Three-a-day messages (messages five and seven) elicited less impactful emotive reactions from participants.

Participants from higher LSM groups reacted with more intense emotions to messages one, three and six. It was evident that a small fraction within these groups displayed a measure of Ambivalence by not expressing any intensity in Arousal related emotions. The lower LSM groups, however, reacted somewhat differently with almost half the

participants expressing intense Pleasure but no Arousal. The effect thereof is well-liked messages not likely to result in action.

Differences in gender were evident on messages one and three with males expressing more enthusiastic emotions. Females reacted by expressing less intense Pleasure related emotions.

With regards to age differences, older participants were clearly more emotively stimulated by messages one and three. Message six had no definite emotive impact on one in five participants.

All three messages (one, message three and six) elicited high Pleasure and high Arousal emotive reactions from White, Coloured and Asian participants. On the contrary, Black participants experienced limited Arousal. As such, Black participants were less engaged, resulting in feelings of Comfort.

The first message, 'calcium from dairy helps build strong bones for life', induces mostly positive associations and affirmations among the majority of participants. Furthermore, calcium intake is associated with healthy living and ensuring future health. The third message, namely 'dairy enhances growth as it strengthens growing bones' evoked many positive associations and affirmations among participants. Participants mostly associate this message with health, and one participant referred to energy. A few participants feel doubtful about the credibility of this message, as can be seen especially in responses where body length appears to be a sensitive issue and participants being of the opinion that bone strength is obtained through physical exercise. Some adults are of the opinion that improving bone strength is only required for growing children. A few participants also admitted to being uneducated with regards to the nutritional value of dairy. The sixth message, 'dairy products are nutrient rich foods' was viewed positively as good health is mentioned as an important driver for many. A few participants felt uncertain about the message and some admitted that they require more information pertaining to the nutrients.

The second message, 'dairy helps build strong muscles, as it is a source of high-quality protein', also evoked positive associations and affirmations among participants. However, it is noteworthy that a large number of participants expressed concern and disbelief about this message, with responses relating to the role strenuous exercise in improving muscle strength, such as being 'athletic', and rather endorsing protein intake gained from alternative food products, such as 'eggs' or 'fish'. A few participants reverted back to the message take-out from the first message, saying that dairy is used for 'strong bones'.

The fourth message, 'dairy contains less fat than you think', evoked mixed reactions. Participants generally agree that less fat is important for good health, although one participant felt that less fat would be negative as 'milk contains good fat'. Positive reactions did not necessarily lead to acceptance of the message. A number of participants completely disagreed with the message, while others were uncertain whether this message applied to all types of dairy products. Misunderstanding occurred in cases where participants were of the opinion that the message only applies to only fat free milk. For some participants it did not make a difference whether milk contains fat as they feel that the fat enhances the taste delivery and that the fat has beneficial qualities.

A number of participants were not completely persuaded by message five, 'dairy promotes a healthy weight'. Arguments were expressed that weight loss is dependent on the 'total calorie consumption of the individual, it can be said of any food' and not just particularly dairy. The number of negative responses to the messages is almost equivalent to the amount of positive reactions.

The seventh message, namely 'to benefit from the natural goodness of dairy, three servings a day are needed' resulted in more positive than negative feelings with many participants agreeing that three servings a day will contribute to health. Some constraints could be identified, such as limitations of time or money that prevents individuals from complying with this message. Participants especially feel the required



amount of servings per day can be limited as 'dairy can be substituted for several other things to no detriment'.

**(2) To determine consumer attitudes and feeling-related reactions associated with milk, yoghurt, cheese and maas.**

In order to achieve this objective, the Product Emotion measurement instrument (PrEmo) was introduced in Chapter 4, section 4.5.2. The PrEmo, as applied in the current research, is derived from the Susa Group who refined and improved on the original Desmet PrEmo. This version consists of 12 animated characters representing six positive emotions namely Desire, Satisfaction, Pride, Hope, Joy and Fascination and six negative emotions namely Disgust, Dissatisfaction, Shame, Fear, Sadness and Boredom. PrEmo can be used to assess to what extent each of the 12 emotions is elicited by the appearance of a product.

The use of PrEmo offers in this research is justified by the advantages it offers. According to Ketelaar and Van Gisbergen (2004), as stated in Joubert (2008:10), PrEmo is a user-friendly, valid, and inexpensive instrument to measure emotional reactions to advertising.

Chapter 5, section 5.3 deals with the results of the measurements for each of the four dairy products.

With regards to the emotive reactions to the four dairy products included for the purposes of this study, the products do differ with yoghurt, cheese and milk evoking stronger positive emotions than maas. This is not a surprising finding, given that the user base for maas is less than milk, cheese and yoghurt. Milk, cheese and yoghurt all evoke feelings of Desire, Satisfaction, Joy and Pride with varying emotive intensities. Maas, on the contrary, evoked feelings of Hope and Fascination in addition to Desire, Satisfaction, Pride and Joy.

Overall, yoghurt evoked the most intense emotions on Satisfaction, Pride, Hope, Joy and Fascination, followed by cheese and milk. However, the intensities of these emotions are substantially lower for maas.

### **(3) To determine the cognitive determinants of consumer reactions to the four dairy products**

The third objective focused on the analysis of the results of individual in-depth laddering type interviews conducted with milk, cheese, yoghurt and maas consumers. The response protocols were captured by means of the Laddermap software and subjected to an implication matrix. This matrix indicates the number of direct and indirect associations between product attributes, functional consequences, psychosocial consequences and personal values. Since the introduction of the laddering methodology into the consumer research domain, numerous applications, both applied and academic, have been executed (Reynolds & Gutman, 1988:13). The HVM instrument was therefore identified as the most appropriate means of assessing consumer cognitive reactions to the dairy products.

In Chapter 5, section 5.2.2, the results of the measurement of consumer cognitive reactions to each of the four dairy products are discussed. The analysis reveals the followings results.

Insights from the HVM indicated that the personal values of trust, frugality, self-confidence, good health, nurturing and convenience are considered the primary psychological drivers in milk related consumer behaviour. The values of satisfaction, personal enjoyment, convenience, well-being and creativity are likewise considered the primary psychological drivers in cheese related consumer behaviour. Consumer related behaviour of yoghurt is primarily driven by the personal values of enjoyment, good health, quality of life, convenience, simplicity and green consciousness. Lastly, maas

consumption appears to be driven by the personal values of good health, success, provider, comfort and creativity.

Common values that pertain to all products are health and well-being, convenience, enjoyment and creativity. Milk specific values are trust, frugality, nurturing and self-confidence. Yoghurt specific values were found to be quality of life, green consciousness and simplicity. The values of comfort, success and provider are specific to maas. In contrast to these three products, the values derived for cheese duplicates some of the common values. An interesting insight is that the consequences of quality and taste are mostly associated with milk and cheese respectively, whereas the values of enjoyment and health reflect strongly in yoghurt and maas.

Future nonverbal image building advertising and positioning of dairy products should attempt to incorporate these values bearing in mind that subtle differences exist between milk, cheese, yoghurt and maas. Factual messages, such as those contained in advertorials and related educational material can concomitantly be informed by attending to the attributes and consequences linked to the personal values. These strategic insights should strengthen the potential impact of future communication efforts undertaken by the Consumer Education Project of Milk SA.

#### **(4) To determine the impact on consumer attitudes, and more specifically on consumer reaction towards the products**

Correlation analysis reveals that mood does not impact equally on consumers for each of the dairy products. Population groups react differently to the products.

With regards to milk, the White population group displays most of the variance explained in the overall significant correlations between mood and satisfaction and hope. The analysis confirms similar observations with cheese and yoghurt.

The analysis reveals that only in Black people Pride displays a significant correlation with mood. Besides, Joy shows a closely significant association with mood.

Population groups, especially the White and Black population groups appear to be very sensitive targets for any dairy advertising campaigns.

The findings related to purpose and the four main objectives were discussed respectively in sections 6.2.1 and 6.2.2. The next section addresses the research conclusion.

### **6.3 VALUE OF THE RESEARCH**

As mentioned in sections 3.3.4.3 and 6.1, while a large amount of literature on the South African Dairy Industry is available, no published academic work was found that focused on the emotive reactions to the consumer education project of the South African dairy industry.

This research could well be the first of its kind in addressing dairy marketing in the context of consumer behaviour within the South African dairy industry. The outcome of the research revealing the capital role that emotions play in dairy consumer decision making offers a new approach in deepening understanding of dairy consumers.

Contrary to the fact that the outcome is limited to generic marketing, commercial brand advertising can learn from this study in applying the PrEmo, AdSAM and Hierarchical Value Maps to the particular consumers' dairy brands. This knowledge provides a sound theoretical foundation for more refined segmentation, targeting, positioning strategies in planning and launching new products. A better understanding of consumer motivation in terms of attributes, consequences and values will help dairy processors,

especially Nestle, Parmalat and Clover SA in their capitalisation on generic marketing as a fundamental option for increasing industry demand.

Finally, the application of the outcome of the current research will arguably benefit other dairy industries, especially in the developing countries such as Ivory Coast, Uganda, even Western dairy industries.

#### **6.4 RESEARCH CONCLUSION**

Further qualitative research, especially focus group discussions, could yield additional insights in envisaged creative communication concepts aiming to enhance the aims and objectives with the dairy education project. In addition, laddering interviews should be considered on other basic food products, such as red meat, white meat, fish, maize, eggs, vegetables, fruit and beverages (alcoholic and non-alcoholic). The resultant relative attribute, consequence and value positioning of dairy products could contribute to a focused positioning of dairy within the minds of consumers.

The seven existing messages be prioritised and refined according to the insights of this report. It is recommended that messages one (Calcium), three (Growth) and six (Nutrient Rich) form the core of future communication with other educational messages cascading from these.

Milk, as basic ingredient in all dairy products should remain the focal product in all communication efforts. Additional insights reflected in this research should form part of any product specific promotional activity or advertising.

Mood appears to be very influential on the four dairy products in terms of its ability to impact on the different population groups, especially the Black and White South African population groups.

Section 6.4 provides the recommendations of the research not only to the South African dairy industry and anybody involved in this study, but also to any academic body for the value of this research.

## **6.5 RESEARCH RECOMMENDATIONS**

Consumers expressed a need for additional educational material informing them of the health and nutritional advantage of milk and other dairy products. The CEP should therefore continue and expand its initiatives in this regard. It is also recommended to investigate household consumption behaviour given the importance nurturing, providing and family well-being values. It is finally recommended that the CEP should take into account the population groups, given the fact that their mood influence substantially on the dairy products.

South Africa, being a diverse country, could benefit from the insights of alternative nonverbal models, such as those employed in this study, based on a South African context, whereby nonverbal images have a stronger cross-cultural association. Challenging the CEP with innovative models could result in greater significant insights to reconfigure or extend current communication and marketing strategies directed to a diverse South African consumer market.

## **6.6 LIMITATIONS OF THE RESEARCH**

In interpreting the findings, the results offer strong support for the validity of the measuring instruments that have been applied. However, a number of limitations in the current study should be highlighted.

Firstly, the use of seven communication messages and four dairy products would, for statistical rigour purposes necessitate a larger respondent base. Generalisability is

therefore limited in the current study. Future research will benefit from using a larger sample and other segmentation criteria that have not been used in this research.

Secondly, future research will benefit from examining consumption-related attitudes that could be associated with other dairy products apart from milk, cheese, yoghurt and maas.

Finally, the current study is limited in scope due to the research being conducted in the Gauteng Province only. Future research should aim to try and replicate our findings in different settings.

However, the findings of the current study have practical relevance by pointing out key success factors for dairy advertisements in addition to having theoretical relevance by providing additional insight where related values are integrated in the overall evaluation.

Figure 6.2 is a diagrammatical depiction of the research conducted from Chapters 1 to 6.

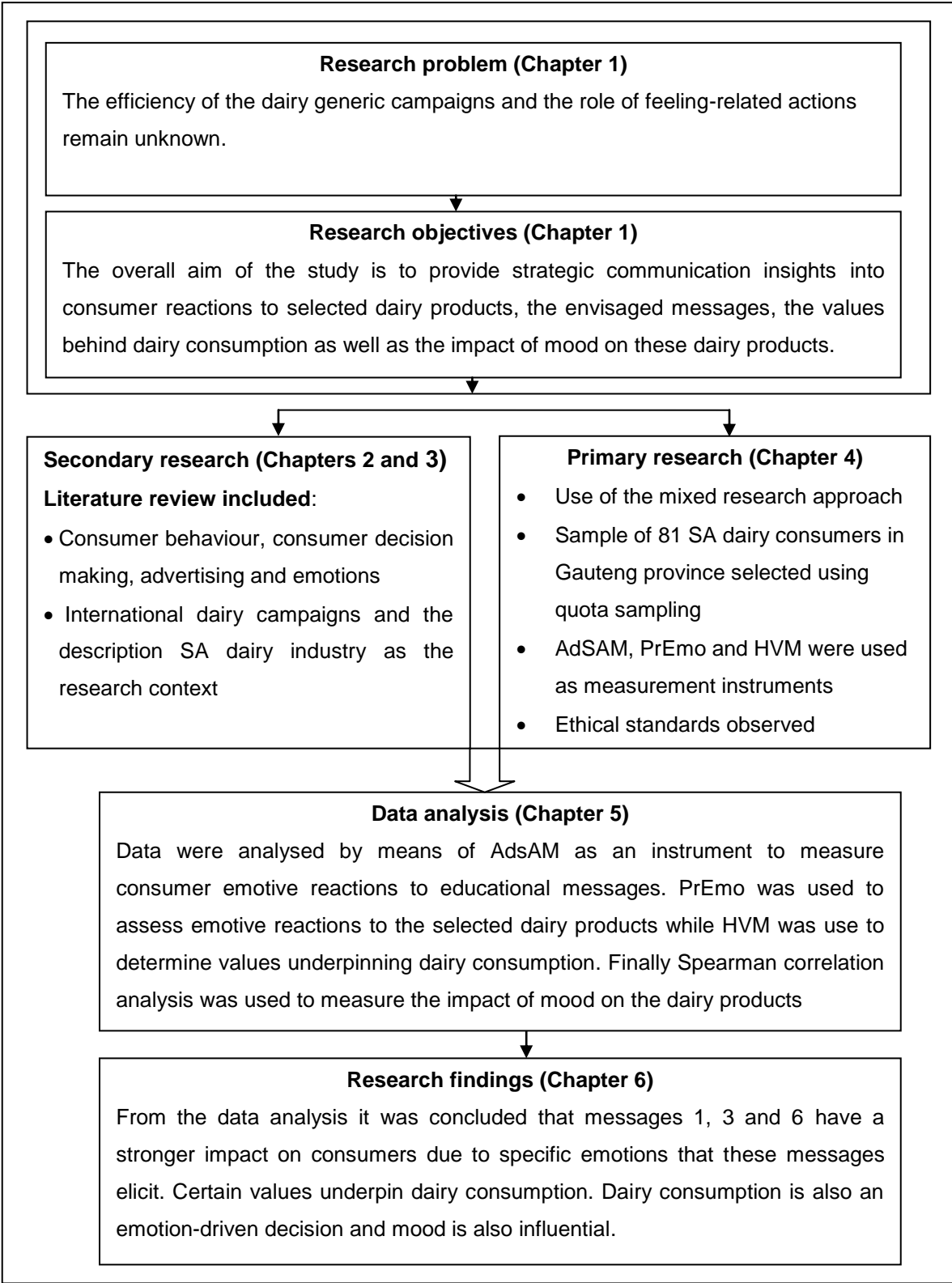


Figure 6.2: Diagrammatical depiction of the research



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# APPENDIX 1: ADSAM

## AdSAM: Emotive measurement to dairy messages

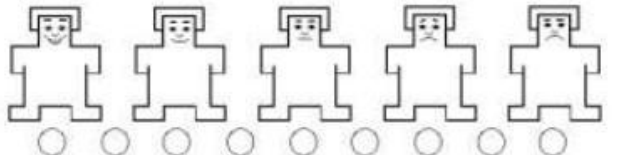
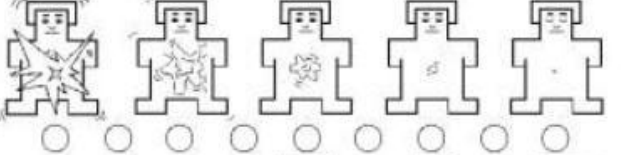
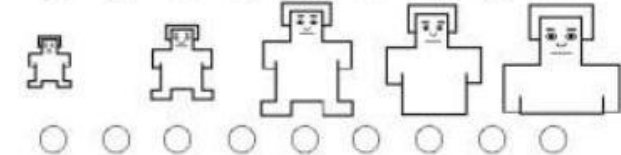
Part of what we are interested in understanding is your emotional response to several things related to seven dairy related messages. For some of the questions in the survey you will be asked to use a simple, scientifically proven tool called AdSAM® to indicate your response. Please read the following instructions, which briefly explain how to use AdSAM to indicate your responses. This exercise will take you approximately 15 minutes.

### Instructions

This is AdSAM, a simple but scientifically validated way for you to indicate your emotional response to the following questions in this survey.

Below, you'll notice three different rows of graphic characters (Manikins), which represent you and your feelings.

**The three rows of pictures represent feelings that range in nature from:**

<p><b>PLEASED, HAPPY or SATISFIED</b></p>		<p><b>DISPLEASED, UNHAPPY or DISSATISFIED</b></p>
<p><b>ENGAGED or STIMULATED</b></p>		<p><b>NOT ENGAGED or CALM</b></p>
<p><b>NOT IN CONTROL</b></p>		<p><b>IN-CONTROL or EMPOWERED</b></p>

The ends of each row are the extremes and there is a whole range of reactions in between the extremes.

**For each question, please**

- v Indicate your **immediate** emotional reaction using all three rows
- v Click **one button in each row** for a total of three marks per question.
- v Either select a circle directly below a Manikin, or in between two Manikins, depending on your reaction.
- v Don't over-think it! Simply indicate your immediate reaction.

**If you indicated that you would be interested in assisting us to understand dairy related consumer behaviour further, and would like to engage in a 30 minute face to face discussion, kindly type your unique two digit code in the next question. If you are not participating in the individual interview kindly skip this question.**

There are 33 questions in this survey

## Unique code

Please type your unique code only if you indicated that you are willing to participate in the individual interview

### 1 Please type your two digit unique code

Please write your answer here:

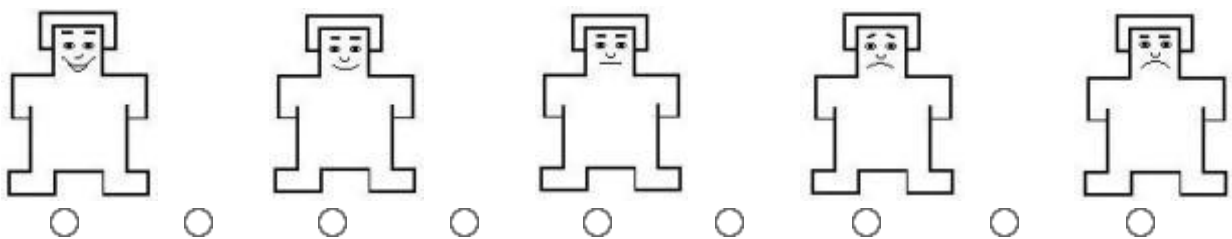
## General feeling

**How do you normally feel?**

Using the same manikins, please click one button in each row to indicate your response:

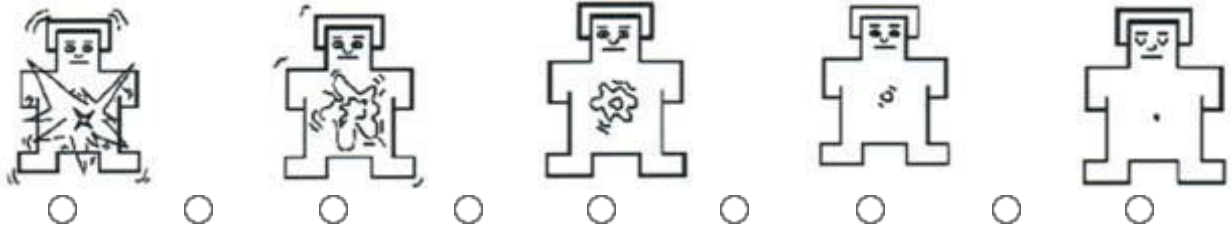
### 2 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \*

Please choose the appropriate response for each item:



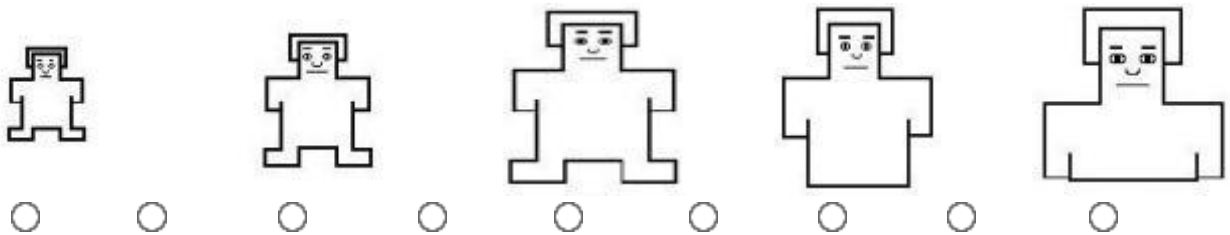
### 3 Engaged/stimulated or not engaged/calm \*

Please choose the appropriate response for each item:



**4 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**Read Message nr 1**

**Dairy products enhances bone strength**

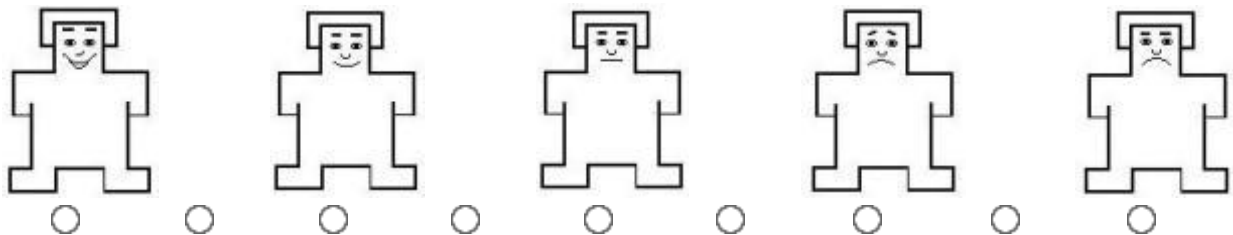
**Calcium from dairy helps build strong bones for life**

How does this message make you feel?

Using the same manikins, please click on one button in each row to indicate your response:

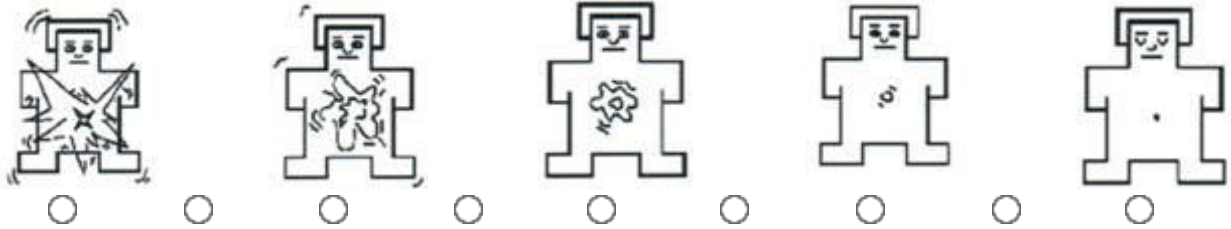
**5 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \***

Please choose the appropriate response for each item:



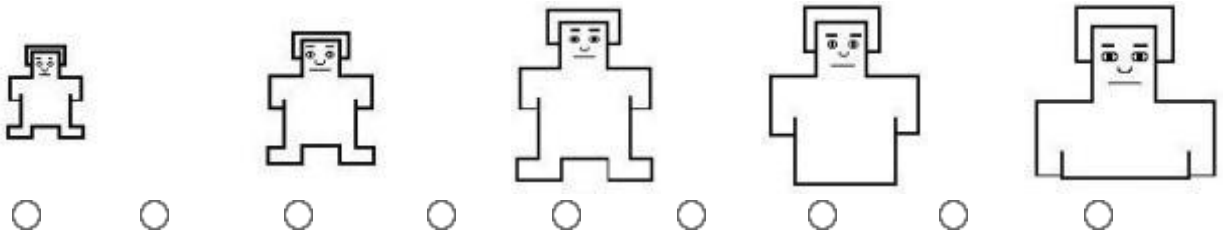
**6 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**7 Not in control or in-control and empowered \***

Please choose the appropriate response for each item:



**8 What specifically makes you feel the way you do about Message 1? \***

Please write your answer here:

**Read Message nr 2**

**Dairy products enhances muscle strength**

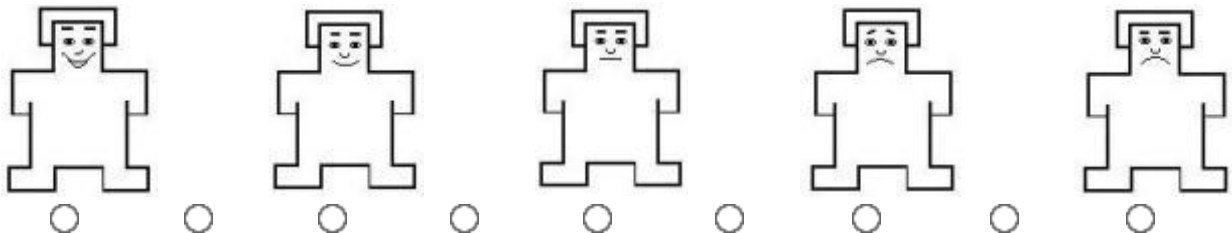
Dairy helps build **strong muscles**, as it is a source of high-quality protein

How does this message make you feel?

Using the same manikins, please click one button in each row to indicate your response:

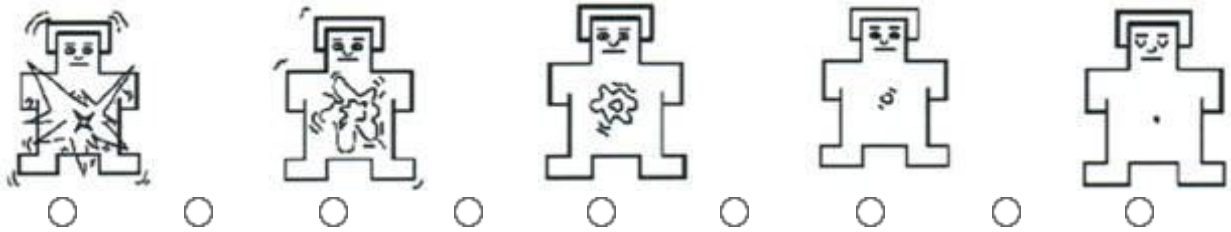
**9 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \***

Please choose the appropriate response for each item:



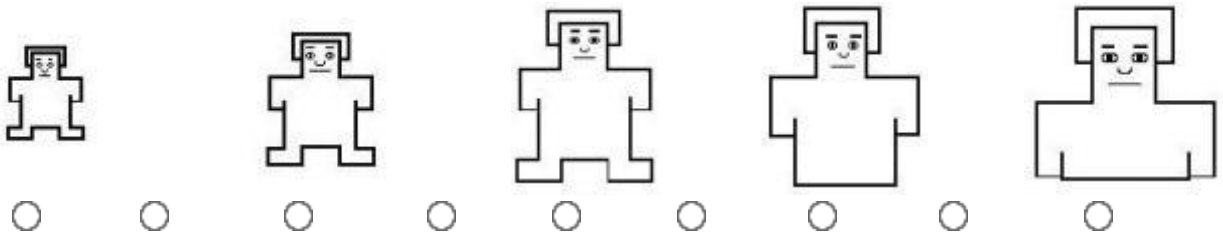
**10 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**11 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**12 What specifically makes you feel the way you do about Message 2? \***

Please write your answer here:

**Read Message nr 3**

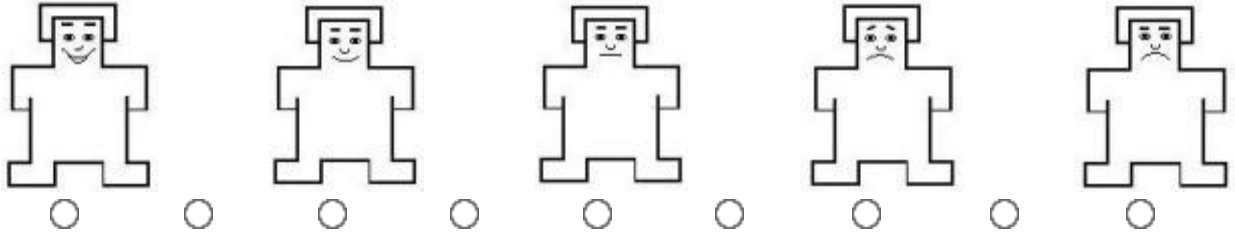
**Dairy products complement growth**  
Dairy enhances **growth** as it strengthens growing bones

How does this message make you feel?

Using the same manikins, please click one button in each row to indicate your response:

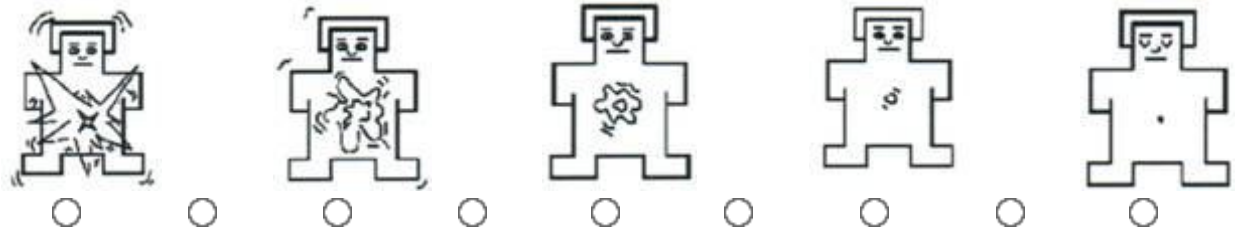
**13 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \***

Please choose the appropriate response for each item:



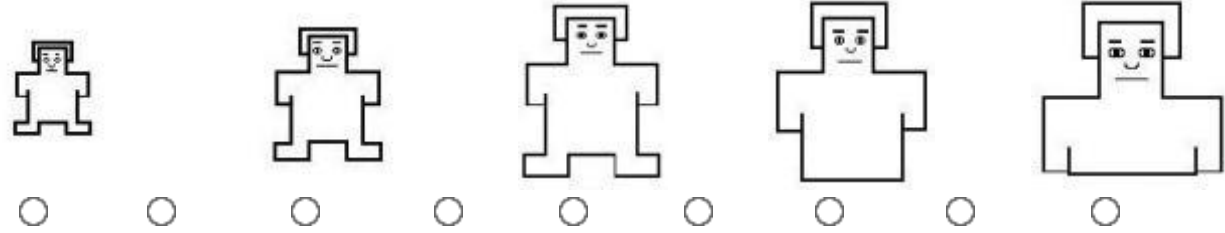
**14 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**15 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**16 What specifically makes you feel the way you do about Message 3? \***

Please write your answer here:

**Read Message nr 4**

**Milk contains less fat than you think**

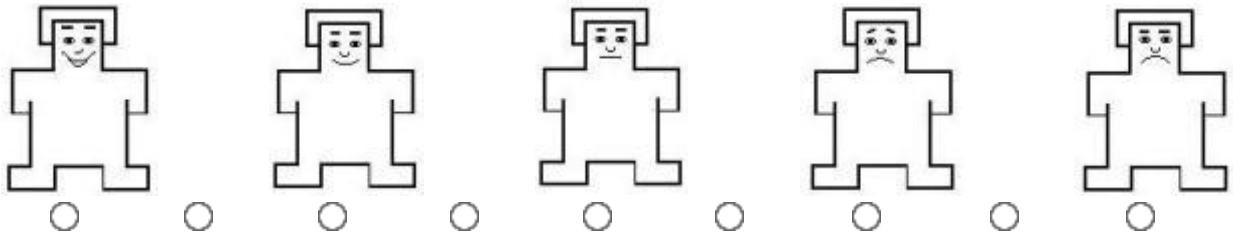
How does this message make you feel?

Using the same manikins, please click one button in each row to indicate your response:

**17 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \***

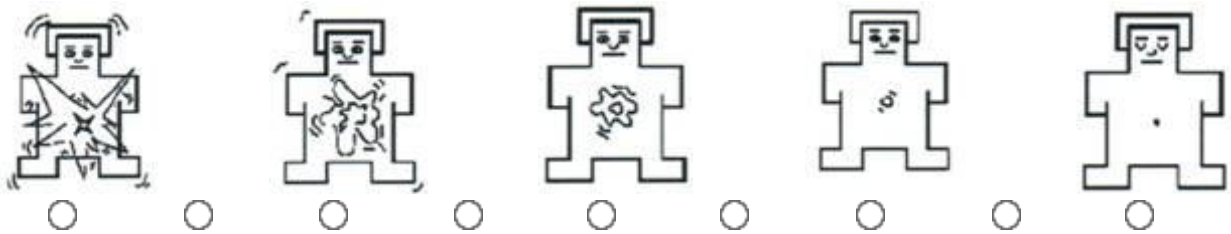


Please choose the appropriate response for each item:



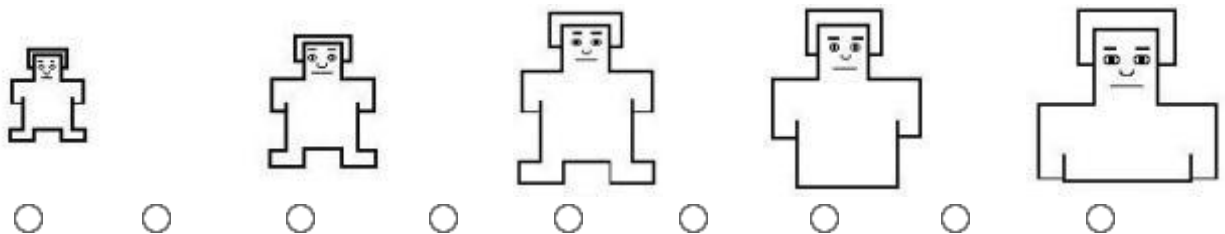
**18 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**19 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**20 What specifically makes you feel the way you do about Message 4? \***

Please write your answer here:

**Read Message nr 5**

**Dairy products enhance weight loss**

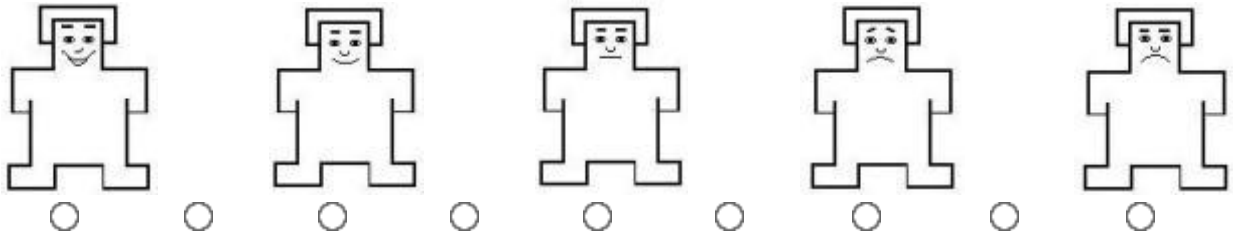
Dairy products help promote a **healthy weight** by contributing to weight loss and weight maintenance

How does this message make you feel?

Using the same manikins, please click one button in each row to indicate your response:

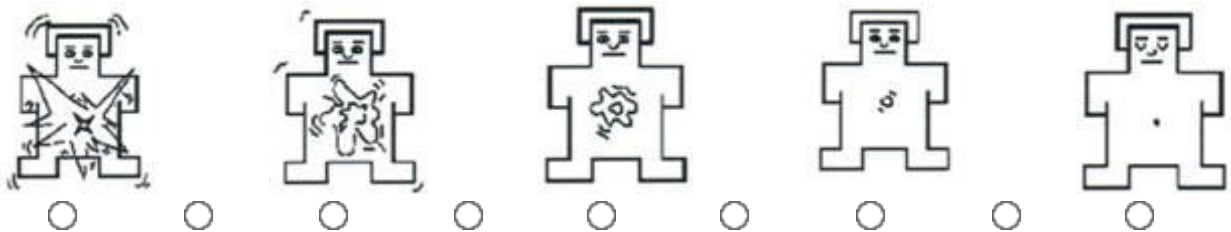
**21 Pleased/happy/satisfied or displeased/unhappy/dissatisfied\***

Please choose the appropriate response for each item:



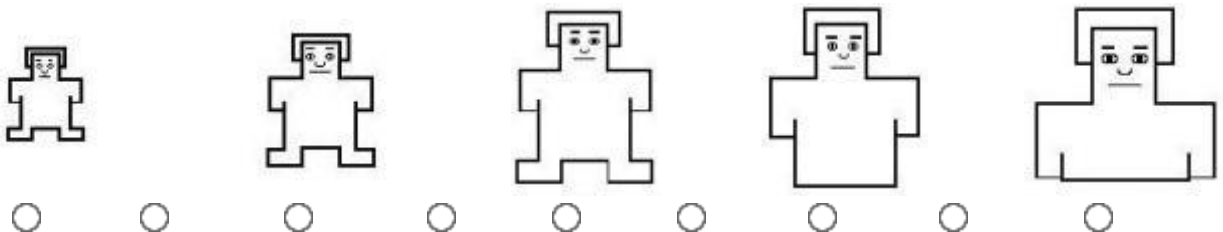
**22 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**23 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**24 What specifically makes you feel the way you do about Message 5? \***

Please write your answer here:

**Read Message nr 6**

**Dairy products are rich in nutrients**

Dairy products are **nutrient rich** foods as they contain 10 nutrients essential for a

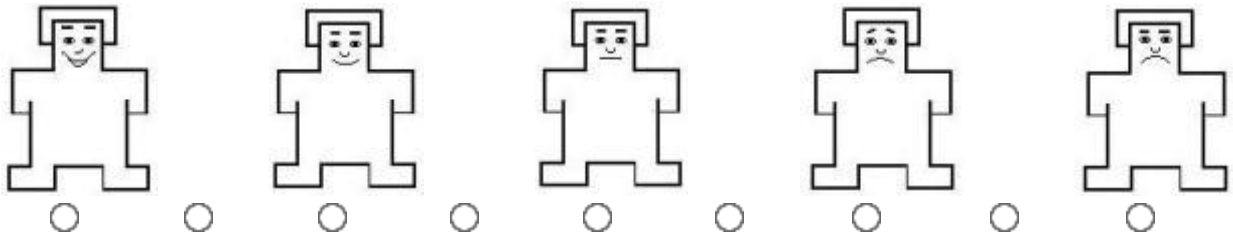
healthy body

How does this message make you feel?

Using the same manikins, please click one button in each row to indicate your response:

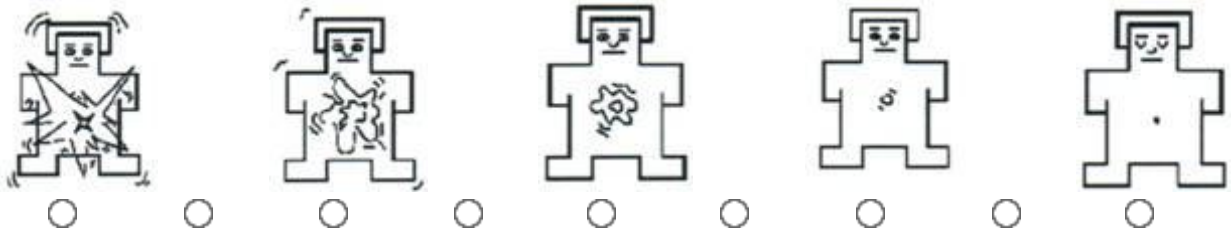
**25 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \***

Please choose the appropriate response for each item:



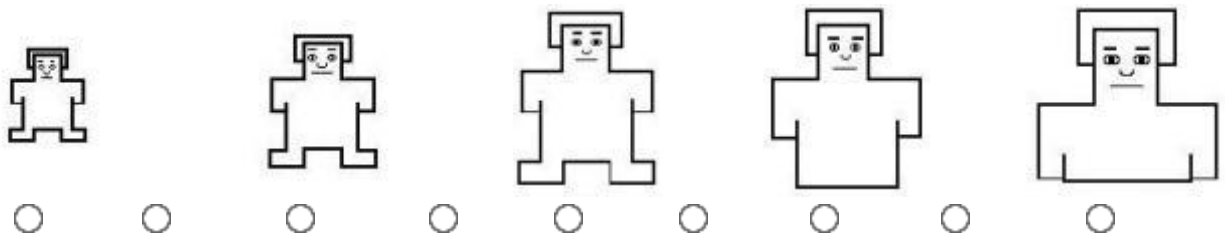
**26 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**27 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**28 What specifically makes you feel the way you do about Message 6? \***

Please write your answer here:

**Read Message nr 7**

### 3-A-DAY™

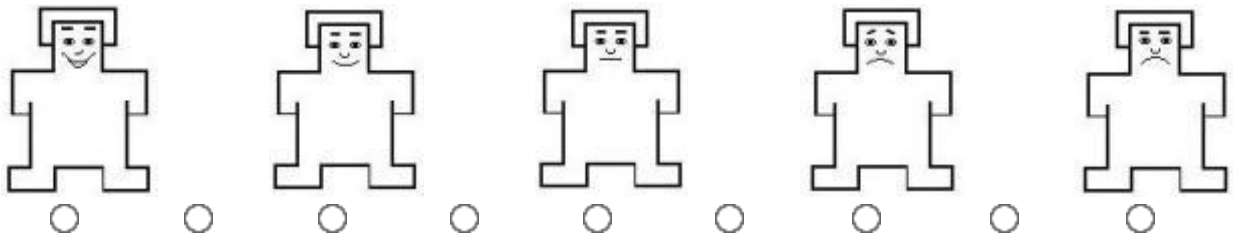
To benefit from the natural goodness of dairy, **three servings a day** are needed

How does this message make you feel?

Using the same manikins, please click one button in each row to indicate your response:

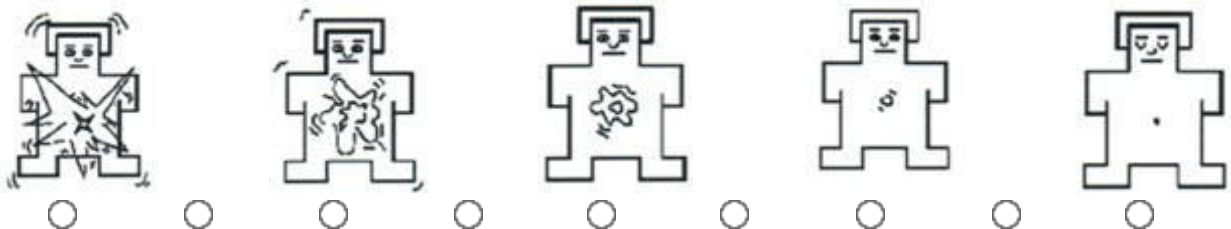
**29 Pleased/happy/satisfied or displeased/unhappy/dissatisfied \***

Please choose the appropriate response for each item:



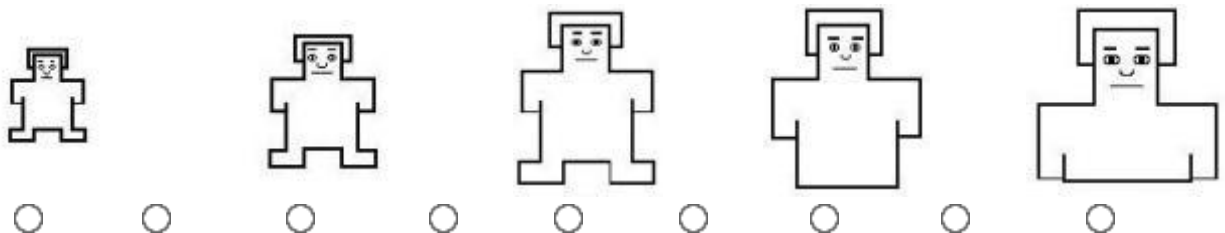
**30 Engaged/stimulated or not engaged/calm \***

Please choose the appropriate response for each item:



**31 Not in control or in-control/empowered \***

Please choose the appropriate response for each item:



**32 What specifically makes you feel the way you do about Message 7? \***

Please write your answer here:

**Thank you**

---

u for paticipating in the research. You are welcome to leave a comment below before clicking the SUBM  
e the page directing you to Phase 2 after you have submitted your responses. Please ignore this and e

---

**33 Please write your answer here:**

**01.01.1970 – 02:00**

**Submit your survey.  
Thank you for completing this survey.**

---

**Welcome**

Dear Participant

Thank you for participating in this exiting research project. The research requires you to view pictures of four dairy products and read seven short messages. You will be required to indicate your emotions while viewing the pictures and reading the messages. Your first reaction is the one we are particularly interested in, so please do not think about how you feel for too long. On completion of the product phase you will be required to click on a link which will direct you to the messages. The product phase will require approximately 15 minutes and the messages phase approximately 5 minutes. Please complete both phases without exiting.

If you indicated that you would be interested in assisting us to understand dairy related consumer behaviour further, and would like to engage in a 30 minute face to face discussion, kindly type your unique two digit code in the next question. If you are not participating in the individual interview kindly skip this question and proceed by clicking NEXT.

**Unique two digit code**

Please type your unique two digit code only if you have indicated your willingness to participate in an individual interview

**Milk usage**

How often do you consume milk?

- Every day
- Two to six times per week
- Once a week
- Less often than weekly
- Never

**Cheese usage**

How often do you consume cheese?

- Every day
- Two to six times per week
- Once a week

- Less often than once a week
- Never

**Yoghurt usage**

How often do you consume yoghurt?

- Every day
- Two to six times per week
- Once a week
- Less often than once a week
- Never

**Maas usage**

How often do you consume Maas

- Every day
- Two to six times per week
- Once a week
- Less often than once a week
- Never

**Residence**

Please specify the suburb where you currently live

**Gender**

Please specify your gender

- Male
- Female

**Age**

What is your age?

- 16-24
- 25-34
- 35-44
- 45-54
- 55+

**General mood**

Before we start the actual test, we want to ask you to indicate your general mood. You can use the scale below. Select one of the seven bullets to represent your current mood state (left if your mood is unpleasant, and right if your mood is pleasant). You can select a bullet by clicking on it with the mouse.



**Introduction**

To express your responses you can use a set of animated characters (see picture below).



Before the actual study starts, we will start with a short introduction to the animated characters.

Each animated character expresses a particular feeling. You can see what feeling it expresses by clicking on it with the mouse.



Please TRY this with the character displayed below.

Please turn up the sound on your PC, the sounds made on this website are very important!

Please click on the character

You can express your response with the use of these animated characters. For this, you can use the scales on the right side of the characters. These scales appear as soon as you click on the character.

You can use the scale to report to what degree the feeling expressed by the character matches your own feeling.

If you strongly feel this, click on the four on top of the scale;

or

If you feel this to some extent, click on the two in the middle of the scale;

or

If you do not feel this at all, click on the zero at the bottom of the scale;

etcetera...

You can alter your choices at any time.

Please TRY this with the character displayed below.

Please click on the character and the scale

### **Exercise**

Now you will do a small exercise to get acquainted with the animated characters.

When you click on 'Next' the exercise will start.

Please remember to turn up the sound of your PC, the sounds made on this website are very important.

### **Dairy products**

Please look at this picture for a few seconds.

When you have seen the products, click on 'next' to continue.

To start with the actual study, click on 'Next'.

### **Milk**

Please look at this picture for a few seconds.

When you have seen the milk, click on 'next' to continue.

### **Cheese**

Please look at this picture for a few seconds.

When you have seen the cheeses, click on 'next' to continue.

**Yoghurt**

Please look at this product for a few seconds.  
When you have seen the product, click on 'next' to continue.

**Maas**

Please look at this product for a few seconds.  
When you have seen the product, click on 'next' to continue.