A PERCEPTUAL EXPLORATION OF WOMEN'S GOLFING APPAREL QUALITIES AND ITS INFLUENCE ON THE CONSUMERS' PURCHASING DECISION

by

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DEDICATION

I dedicate this work to my grandparents, the late Mr and Mrs D.K. Naidoo.

DECLARATION

I, Sagunthala Naidoo, declare that the dissertation, which I hereby submit for the degree of Master of Consumer Science at the University of South Africa, is my own work and has not previously been submitted by me for a degree at this or any other institution.

Ms S A NAIDOO:

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SUMMARY

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The purpose of this study was to explore how consumer's perception of women's golfing apparel qualities influenced consumer's purchase decisions. In fact Swinker and Hines (2006) pointed out that consumer perceptions of apparel quality are viewed as a multi-dimensional concept and should be evaluated on several levels. Numerous apparel quality studies have examined how perception of apparel quality has influenced consumer purchase decisions. However, there has been little or no research documented on how female consumers perceive women's golfing apparel quality and how this may influence consumer purchase decisions in a South African context.

Evaluation of apparel quality occurs at two stages during the consumer decision-making process. Apparel quality is evaluated in-store at the decision-making process stage and at the post-purchase evaluation stage. The apparel qualities that women golfers use during these stages may not be the same.

In this study an exploration was thus done on physical, behavioural and extrinsic apparel qualities in relation to women's golfing apparel. Firstly physical intrinsic apparel qualities were explored such as colour, design, construction, finishes and textiles like moisture management, ultraviolet protection and eco-friendly qualities. Secondly, the behavioural apparel qualities explored functional and aesthetic apparel qualities. Functional apparel qualities include fit, comfort, durability, moisture management, ultraviolet protection and eco-friendly textile qualities which are known to influence the functional behavioural qualities for women's golfing apparel. The aesthetic behavioural qualities included design, appearance and sensory beauty. According to De Klerk and Lubbe (2004), aesthetic behavioural qualities refer to the attractiveness that the apparel brings about on a sensory or emotional level to the consumer.

In light of this a phenomenological approach was used to explore apparel quality for women's golfing apparel which allowed the researcher to focus on the actual experience and perception of participants in their natural environment. Moreover, this approach allowed participants to describe their thoughts on physical (intrinsic) apparel qualities, extrinsic apparel qualities as well as behavioural (functional and aesthetic) apparel qualities found in women's golfing apparel. Data were collected through means of a multi-method approach whereby different data collection instruments were applied. In this regard focus group discussions, design card sort and a sentence completion task were used which addressed the objectives set out in the study. A convenient sampling strategy was used to recruit participants for the focus group discussions. This sample consisted of women golfers from the Woodhill and Silverlakes Clubs situated in the East of Pretoria.

From the results of the study on the perceptual exploration of women's golfing apparel qualities and the influence on consumer purchase decisions, it was indicated that participants viewed apparel quality as a multidimensional concept. Physical, behavioural and extrinsic apparel qualities were used to evaluate women's golfing apparel on which they based their purchase decisions.

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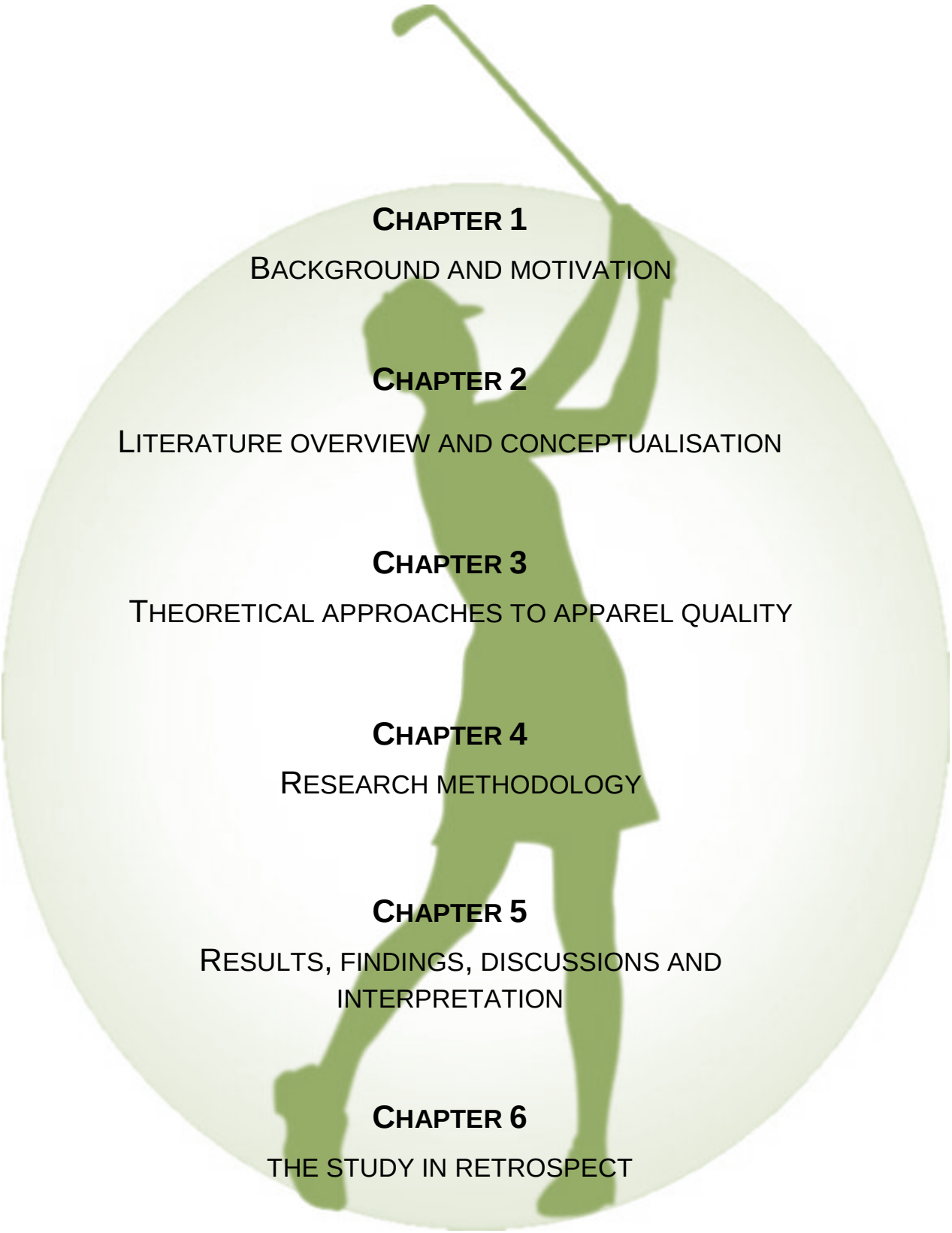

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CHAPTER 1

THE STUDY IN PERSPECTIVE

The aim of this chapter is to provide a brief overview of the study, outlining the current marketing situation, aim and objectives regarding women's golfing apparel in the South African context.

1.1 BACKGROUND AND MOTIVATION

Golfers are one of the most affluent and well educated demographics. The popularity of golf as a sport has grown significantly and has shown no signs of a decline giving rise to new golf courses and clubs. Golf is a popular sport not only in the United States but globally and it is growing in countries such as Korea, Japan, India, China, Germany, the UK and South Africa (Lucintel, 2004). Over the last five years the golf industry has seen a significant growth of 5 to15 percent annually (McMurry, 2011). For example Lucintel (2004) reported that the golf industry globally is estimated to be a $ 7.1 billion industry which includes golf apparel and footwear. In addition market research in the USA has shown that women spend approximately $3 billion on golf equipment, apparel and green fees (Stine, 2011) making this a viable market to cater to when looking at women's golfing apparel.

According to the National Golf Foundation in the United States of America, when it comes to making purchase decisions regarding sport apparel women are responsible for more than 80 percent of all consumer purchases (McMurry, 2011). One of the reasons is the rise in the number of women golfers and the consumption of women's golfing apparel products (Lantz and Schroeder, 1999). There has been an increasing number of women participating in sporting activities to ensure healthier lifestyles (Chae, Black and Heitmeyer, 2006) which implies that there is a growing demand for active sport apparel. Yet, despite the growth in women's golf, limited

research has been done to investigate consumer perceptions regarding the quality of women's golfing apparel.

In fact Stine (2011) added that an extensive study in America was done to understand the perceptions, experiences and buying habits of female golfing consumers. As a result it was necessary to grow the women's golfing apparel market by producing more attractive and fashionable apparel to meet the needs of consumers. For the same reason sport apparel retailers are focusing on developing effective marketing strategies to boost the development of the golfing apparel market (Veltri and Long, 2000). In light of this Sparks (2007:368) pointed out that women's sportswear in the United Kingdom has become increasingly more fashionable. As a result sport brands such as Nike in London have recognised that the female sport market has different aspirations and needs and have shifted their attention to women by providing a retail shopping environment and apparel products that have a more feminine look and feel that women can relate to (Sparks, 2007:383).

However, when looking at the current situation in South Africa women's golf has grown at a phenomenal rate. Presently there are 450 golf clubs with a total number of 129 594 registered golfers' according to Women's Golf South Africa, of which the Nedbank National Golf network has currently 16 000 registered women golfers. The growth in number of women golfers has brought about the hosting of the Women's World Cup of golf in the country. In light of the growing interest towards the women's golf market it has become apparent that apparel quality should also be researched for this market as nothing has been documented within the South African marketing context.

Apparel retailers are often described as marketers who offer a product and service to the consumer (Chen–Yu and Kincade, 2001). In order for retailers and manufacturers to understand the needs of consumers it is equally important to understand how female consumers perceive apparel qualities found in women's golfing apparel. By doing this they are also able to provide quality apparel and service to female consumers. For instance a study on the product image of sweatshirts done by Chen-Yu and Kincade (2001) showed that some consumers did not purchase sweat shirts based only on good product image, unless it met all their

evaluative criteria. For the same reason it is essential for retailers to monitor apparel product quality to ensure that apparel products meet consumer expectations.

In view of this, it is most often assumed that quality is important in consumer purchase decisions (Swinker and Hines, 2006). Yet, the way in which consumers evaluate quality of apparel products is still not transparent (Rogers and Lutz, 1990). Garvin (1987) states that 'quality' is a difficult concept to explain as there are several definitions from various approaches given. Consequently Stamper, Sharp and Donnell (1991:313) added that when it comes to the production and manufacturing of apparel, clothing manufacturers must decide the level of quality and excellence of the end product. The reason behind this is mainly because the expectations of consumers may vary from one group to another, for example a female consumer purchasing women's golfing may be a more sophisticated consumer with very specific expectations regarding the type of apparel she needs. This implies that several intrinsic apparel qualities such as (textile qualities, colour and design), extrinsic apparel qualities such as (product appeal, brand name and price) as well as functional and behavioural qualities may also influence the perceptions of consumers. Furthermore, it is these intrinsic and extrinsic apparel qualities that may influence the purchasing decision, in this instance when female consumers evaluate sportswear (Rogers and Lutz, 1990).

Previous research by Abraham-Murali and Littrell (1995) confirms that consumers' perceptions of apparel quality is multi-dimensional and depends on a selection of stimuli such as the apparel product on display, personal needs, expectations and previous experience. In light of this research has focused on consumer perceptions of apparel quality in a broader context. However, South African marketers and retailers of golfing apparel still need to understand how female consumers in particular perceive the current range of women's golfing apparel regarding design, style and textile qualities. In fact La Babera and Mazursky (1983) are of the opinion that it is critical to assess consumer perceptions at the purchase stage and again at the post purchase stage, as this allows retailers and manufacturers to understand more fully consumer behaviour.

Consumers are known to react to a product based on their individual perceptions (Schiffman and Kanuk, 2010:173). This is largely due to the fact that many

consumers' buying expectations are based on perceptions of marketing stimuli (Rousseau, 2007:161). By advertising products and brands, marketers are able to create and shape consumer perceptions so the product meets consumer needs and expectations. In the case of female consumers shopping for women's golfing apparel the overall perception may be influenced by how the apparel product is marketed in terms of its aesthetic qualities and what the apparel may deliver during a game of golf. Again some female consumers may be more loyal to certain brands such as Nike or Adidas and may select a popular brand name to fit into a social elite group like a women's golf club. As Sproles and Kendall (1986) pointed out, brand conscious consumers are known to buy more expensive products with the belief that higher priced branded apparel meant better quality. Other female consumers may look at various other intrinsic qualities found in the apparel product for example the colour and textile used whereas extrinsic qualities such as price may also play a pivotal role during the evaluation of women's golfing apparel.

In fact a study by Chae, *et al.* (2006) on female tennis apparel consumers identified comfort as the most important quality and fit the second most important for women to achieve satisfaction. Similarly Mullet (1998) also added that comfort as an apparel quality added to sportswear was very significant in that it provided easy movement for players and this may apply to women golfers as well as there is much arm movement during the sport. Sport clothing interest and consumption preferences suggest comfort, quality and other physical performance enhancing characteristics (Chae, *et al.* 2006).

In addition Wheat and Dickson (1999) indicated that female athletes use clothing to communicate their sporting identity. This implies that women golfers may use style, fit and comfort to measure the quality of performance features characteristic of the textile qualities found in the apparel product. As a result it is pertinent to understand how the choice of textiles used in the construction of women's golfing apparel influences the comfort of the apparel product. In fact Kadolph (1998:193) indicated that comfort describes how the fabric or textile interacts with the human body. For example in a sporting game like golf it is important for textiles to move with movement during play and also absorb moisture. Textiles with moisture absorbency qualities are known to absorb liquid and perspiration while bringing comfort to the wearer (Kadolph, 1998:200) and are known for their functional qualities.

Textiles used in active sportswear have advanced significantly and have brought a new trend, combining science with sport (Cornnell, 2009). Importantly the concept of clothing improving athletic performance is gaining more popularity in the golfing industry, as James De Hoff, the national sales manager for Heritage Sportswear in Ohio in America reported, “with consumer demands for high performance, comfort and style, golf is host to an interesting array of technical fabric innovations”. From this understanding there are three important textiles technologies that are important for this study, namely moisture management qualities, ultraviolet textiles and eco-friendly textiles. This implies that in terms of technological advancement in sport textiles and their use in the manufacture of women’s golfing apparel, it would be pertinent to understand how women golfing consumer’s perceive textile qualities for example moisture management and ultraviolet protection. It would also be important to understand how these consumer perceptions influence the consumers purchasing decision with regards to women’s golfing apparel.

The consumer decision making process provides a rich area of research to gain knowledge on how female consumers in particular evaluate apparel quality (North, Vos and Kotze, 2003). In order for one to understand the consumer decision making process better it is important to examine how female consumers evaluate apparel products at the pre-purchase and post-evaluation stages. In fact Engel, Blackwell and Miniard (1995) are of the opinion that the pre-purchase process occurs at the alternative evaluation stage where consumers search for information via their memory or the environment. Engel, *et al.* (1995) state that level of involvement with a product increases when it fulfils needs and values for the consumer. For instance women that participate in sporting activities like golf may be motivated by a range of sporting needs. Some female consumers may require a certain dress code and might be in search for a particular style with regards to the golf apparel dress code. It can be assumed that various apparel product qualities such as colour, fit, comfort, design, textile and workmanship may influence the consumer decision-making process and this may be the case with women’s golfing apparel in South Africa.

The purchase decision of female consumers is evaluated on several levels such as the physical level, the cognitive level and even the emotional level (Fiore and Kimle, 1997:05). It is important to understand that the consumer decision-making process is made up of five stages, need recognition, information search, alternative evaluation,

purchase decision and lastly post purchase evaluation (Schiffman and Kanuk, 2010: 531). Because sport is a market driven industry, it is important for sport retailers to understand the role of involvement and information processing based on consumer decision-making processes and its influence on the consumer purchase decisions (Trenberth and Garland, 2007: 84). Based on this knowledge golf apparel marketers such as Pro Shop and Golfers Club in South Africa would be able to redesign marketing strategies, sport products and apparel and be able to monitor price sensitivities to strengthen this burgeoning market.

1.2 PROBLEM STATEMENT

The discussions thus far on apparel quality and the studies that have been conducted have unfortunately not focused directly on the South African golfing apparel scene. Apart from De Klerk and Lubbe (2004) and Jacobs and De Klerk's (2007) work which was done within a South African apparel context, all other research presented thus far has been United States based and not specific to the golfing apparel scene. A need thus exists for empirical research studies planned and executed within a South African context that studies golfing apparel quality and to determine what perceptions consumers have about apparel quality of this type of clothing.

This is supported by the fact that specific golfing apparel research has been difficult to locate. Apparel quality is largely researched in a general way and does not account for much research on apparel quality within sport wear and more specifically golfing apparel. In light of the growing golfing market it thus becomes apparent that apparel quality should also be researched in this market as nothing has been noted within the South African marketing context and very little in the international market.

In addition to the above mentioned problems little apparel research of a consumer related interest exists on the intrinsic and extrinsic textile qualities of apparel and golfing apparel specifically in terms of moisture management, ultraviolet protection and eco-friendly qualities and less on how these qualities influence purchasing decisions nor the expectations consumers might have towards these apparel

qualities. The proposed research on the perceptual exploration of the intrinsic and extrinsic apparel qualities for women's golfing apparel is, therefore, necessary as this will bring about an understanding of how these qualities are justified and perceived by the South African consumer and more specifically within the women's golfing apparel framework. The study will also enable the research to explore the role these apparel qualities play in women's golfing apparel purchases.

1.3 CONCEPTUAL FRAMEWORK AND RESEARCH OBJECTIVES

In this study, De Klerk and Lubbe's (2004) model on the dimensions of apparel quality as well as Abraham-Murali and Littrell's (1995) model on post purchase evaluation was used to initiate the conceptual framework by which the study is guided. Physical (intrinsic) apparel qualities and behavioural (functional and aesthetic) qualities found in De Klerk and Lubbe's (2004) model on apparel product quality provides valuable guidelines on how consumers evaluate apparel quality. There is a clear theoretical understanding that consumers evaluate apparel quality not only by its physical qualities but also by aesthetic qualities on a sensory, emotional and cognitive level. On the other hand the perceptual exploration of apparel qualities by Abraham-Murali and Littrell's (1995) schematic representation also identified conceptual dimensions across a large set of apparel qualities that are useful to the study on women's golfing apparel quality. Two stages were evaluated by Abraham-Murali and Littrell, firstly the expectation stage and secondly, the post-purchase evaluation stage. To understand more fully female consumers' perceptions of apparel qualities regarding women's golfing apparel, it is pertinent to examine both these stages, firstly the purchase stage and secondly the post purchase evaluation stage. Therefore, to explore consumer perceptions of apparel qualities for women's golfing apparel the following conceptual framework is suggested in Figure 1.1.

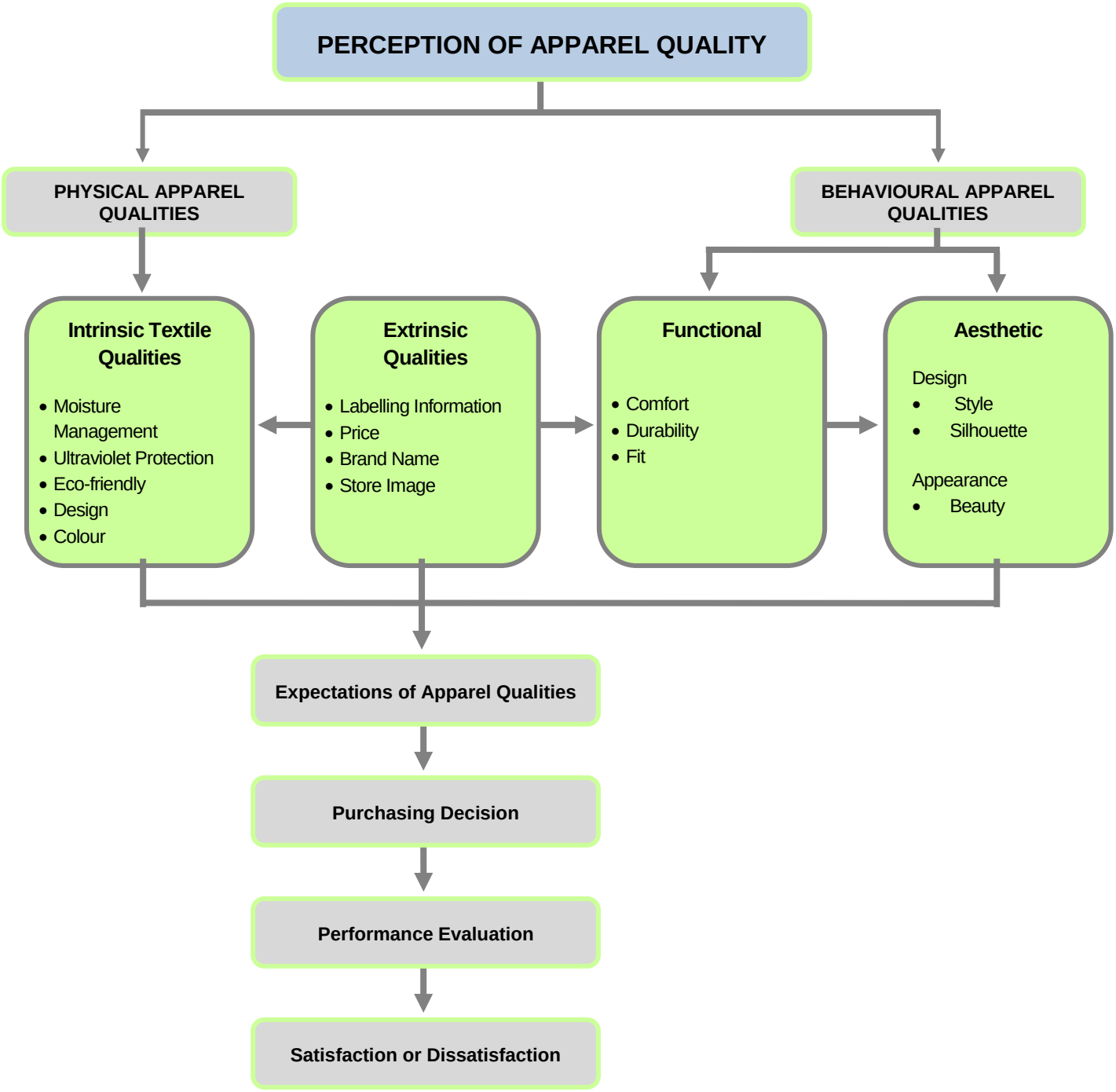


Figure 1.1 Schematic Conceptual Framework for Apparel Quality

This framework proposes that a perceptual approach is most suitable to determine how women golfers perceive apparel qualities contained in women's golfing apparel. As seen in Figure1.1 the physical, behavioural and extrinsic qualities play a significant role in the evaluation of apparel quality by the consumer. From apparel theory it is clear that quality is a multi-dimensional concept (Kaiser, 1988:30) which is a subjective aspect that is part of the consumer-decision-making process during the purchase and post purchase evaluation stages. Based on this understanding women's golfing apparel can be measured on a number of apparel qualities which are indicated in Figure 1.1 namely, physical (intrinsic) qualities, behavioural (functional and aesthetic) qualities and extrinsic apparel qualities. As illustrated in the schematic conceptual framework in Figure 1.1 it is suggested that consumers have specific expectations regarding functional and aesthetic qualities when evaluating an apparel product. This may be true with female consumers when purchasing women's golfing apparel. Functional apparel qualities include for example aspects such as fit and durability which can also influence consumers' perceptions of quality when evaluating women's golfing apparel.

When evaluating such qualities found in women's golfing apparel, female consumers in particular may look for a golf shirt that can provide added comfort while playing golf during hot and cool climatic conditions. Together with this they may also need a golf shirt that is durable with the ability to keep its shape and form. On the other hand the apparel design, style, colour, textile and texture bring about the aesthetic experience and consumers react to this on an emotional, cognitive and sensory level when they evaluate apparel quality (De Klerk and Lubbe, 2004).

Emotions are known to influence and shape consumer perceptions and behaviours and this may be more so with female consumers who are more concerned with the sensory beauty of the apparel product (Tan, 2010). This could be the case with women golfers who may be guided by aesthetic qualities brought about by a golf shirt for instance. Women golfing consumers may want to look beautiful during a game of golf by fulfilling inner desires, fantasies and dreams relating to aspects of style and design of apparel. In retrospect it is important to evaluate the role aesthetic and functional qualities play in how female consumers' evaluate women's golfing apparel. Consequently sport retailers of women's golfing apparel need to have a

clear understanding on how consumers perceive these apparel qualities and how consumer perceptions ultimately influence purchase decisions.

Consumer perceptions are often based on personal needs, wants, values and individual experiences. From a consumer perspective the consumer determines what apparel quality is and compares the apparel expectations with the actual performance of the apparel product (Abraham-Murali and Littrell, 1995). For example, when looking at intrinsic textile qualities such as (moisture-management, ultraviolet protection and eco-friendly textile qualities) the women golfer could have certain expectations concerning the performance of these intrinsic textile qualities found in women's golfing apparel. It would be relevant to the study to examine how women golfers perceive functional sport textiles and if it is a prerequisite they use to determine apparel quality when shopping for women's golfing apparel. Other intrinsic apparel qualities that women golfers may consider include colour, design and fibre which form part of the physical qualities as indicated in Figure 1.1.

Other factors that consumers use to evaluate apparel quality are extrinsic product qualities which are more abstract and include price, brands, labelling information and store-image. Abraham-Murali and Littrell (1995) are of the opinion that it is important to investigate further extrinsic qualities in addition to the intrinsic, more concrete apparel qualities. According to Forsythe (1991), the quality conscious consumer uses higher prices to determine apparel quality. In fact Solomon and Rabolt (2004: 360) are of the opinion that consumers with little product knowledge often use apparel qualities extrinsic to the functioning of the product, such as brand name and price to evaluate apparel quality. This means that consumers purchase certain brands with the belief that they are of superior quality. Similar observations will be explored when evaluating the perceptions of women golfers regarding price and sport brands for women's golfing apparel.

In summary of this discussion, there is a cognitive response that occurs during the evaluation of the product, which refers to the judgements consumers make about a product, based on information perceived by the senses and evaluative criteria applied (Tan, 2010). This means that consumers evaluate the quality of the apparel product before it is actually purchased. In fact this phase of the decision-making process happens when the actual decision to purchase is made. Some of the

information sources that consumers may use when purchasing women's golfing apparel at the point of purchase may include physical, behavioural and extrinsic apparel qualities such as design, style, colour, textile, comfort, garment performance and price, to name a few. Therefore, it can be argued that the purchase decision and alternative evaluation stages depend on the same evaluation criteria and occur almost simultaneously during the apparel decision-making process.

Consequently after the buying process consumers evaluate the level of performance of the apparel product against their initial expectations of the product. For example the level of performance expected by the consumer may be based on a number of apparel qualities. For some consumers apparel quality may be equated to the durability of the apparel product, for others it may be fit or garment construction (Rogers and Lutz, 1990). The post purchase response is the reaction of the consumer after the product has been used. Therefore, to understand positive and negative responses to women's golfing apparel purchases at the post purchase stage, retailers will then be more knowledgeable on developing better market strategies aimed at women golfing apparel needs. Along with the theoretical perspective, a conceptual framework was illustrated and research objectives were formulated.

1.4 RESEARCH AIM AND OBJECTIVES

1.4.1 The aim of the research

As the result of the current problem the research has identified the main aim of this study which is to conduct a perceptual exploration regarding apparel qualities. Exploring physical (intrinsic), behavioural (functional and aesthetic qualities) and extrinsic apparel qualities of women's golfing apparel and how this influences consumer purchase decisions. To achieve this aim the following objectives and sub-objectives are outlined below.

1.4.2 Objectives and sub-objectives of the study

Objective 1: To determine consumer perception of the physical qualities of women's golfing apparel.

Sub-objective 1.1 To explore the perceptions of intrinsic textile qualities such as moisture-management, ultraviolet protection and eco-friendly textiles.

Sub-objective 1.2 To explore the intrinsic apparel qualities in terms of design and style.

Objective 2: To determine consumer perception of behavioural qualities found in women's golfing apparel in terms of its functional and aesthetic apparel qualities.

Sub-objective 2.1 To explore the way functional qualities such as durability, comfort and fit are measured by the consumer during the evaluation of the quality of the apparel product.

Sub-objective 2.2 To explore the aesthetic experience of women's golfing apparel.

Objective 3: To determine how the physical and behavioural apparel qualities influence the purchasing decision of women's golfing apparel consumers.

Objective 4: To explore consumer's expectations of physical and behavioural golfing apparel qualities and to determine the extent to which these expectations were met after apparel purchase.

Objective 5: To propose a conceptual model of the perceptual exploration of women's golf apparel quality and its influence on the consumers' purchasing decision.

1.4.3 Research questions

Based on the objectives stated above, the following research questions have been identified:

1. *"What is the consumers' understanding of golfing apparel for women that has moisture management properties?"*
2. *"What is the consumers' understanding of golfing apparel for women that has ultraviolet protection properties?"*
3. *"What is the consumers' understanding of golfing apparel for women that has eco-friendly properties?"*
4. *"What are some of the expectations the consumer might have had when they saw that the women's golfing apparel product that they were interested in had some of the intrinsic product qualities?"*
5. *"How much do the qualities golfing apparel have such as moisture management, ultraviolet protection, eco-friendly, design, fit and functional apparel qualities contribute towards the decision to purchase these golfing apparel that contains such qualities?"*
6. *"How much do aesthetic qualities found in women's golfing apparel influence the purchase decision?"*

1.5 RESEARCH METHODOLOGY

The goal of this study was exploratory and descriptive in nature. A phenomenological research approach was undertaken as this allowed the research to focus on the lived experience and describe what all participants had in common as they experienced a phenomenon. According to Babbie and Mouton (2001:79), an exploratory study is used to provide basic knowledge or further understanding into a certain area within a particular field of study such as women's golfing apparel. The study was conducted in the qualitative paradigm although quantitative data analysis techniques were also applied to analyse the data.

The purpose of the exploratory study was to have a better understanding regarding phenomenon as well as to describe these phenomena (Denzin and Lincoln, 2008:127).

In this regard the research design provided an enhanced understanding and allowed the researcher to obtain new insight into a relatively new area when looking at apparel qualities for women's golfing apparel. The aim of the present study was not only to determine the perceptions of women golfers but was also as a measure to understand what influenced physical (intrinsic), extrinsic and behavioural (functional and aesthetic) apparel qualities. It was also important to explore how apparel qualities influenced consumer purchase decisions regarding women's golfing apparel.

In light of the fact that an exploratory research design captured within a qualitative paradigm was followed, a non-probability sampling strategy was used. Specifically two non-probability sampling strategies were followed that included a purposeful and non-probability sampling strategy. A convenient sampling strategy was finally used to recruit participants for the focus group interviews as difficulties were experienced recruiting female consumers in-store at the Golfers Club and Pro Shop retail stores. The researcher approached women golfers at the Woodhill and Silverlakes Golf Clubs east of Pretoria. Both these golf clubs were established and had a number of registered women golfers and thus provided a suitable data collection environment.

Data was collected through means of a multi-method approach whereby different data collection instruments were used to address the objectives set out in the study. In this regard group interviews, a design card sort and a sentence completion exercise was used in the study as each instrument addressed specific objectives regarding the perceptual exploration of women's golfing apparel quality and consumers purchase decisions.

1.6 CHAPTER LAYOUT

The study reflects the practical development and flow of the study. The chapters are as follows:

1.6.1 Chapter 1: Background and motivation

This chapter presents the introduction and background of the study and looks at the conceptual schematic framework for the study. The aim, objectives and problem statement set out for the study, are outlined.

1.6.2 Chapter 2: Literature overview and conceptualisation

In this chapter the theoretical background to the study will be given in the form of a literature overview. The relevant concepts are furthermore conceptualised for the purposes of this study.

1.6.3 Chapter 3: Theoretical approaches to apparel quality

This chapter looks at the dynamics of apparel quality from various theoretical models, conceptual frameworks and argumentative views that can be studied in order to show the way researchers make sense of the elements involved in apparel quality. Two apparel quality models will be presented and discussed as well as two decision-making models.

1.6.4 Chapter 4: Research methodology

In this chapter the conceptual framework and specific research objectives are given. The full research methodology follows by which the research objectives will be achieved. A qualitative research style will be followed whereby focus group interviews will be chosen as data collection method.

1.6.5 Chapter 5: Results, findings, discussions and interpretation

The results of the data from the focus group interviews are analyzed, discussed and interpreted in terms of the research objectives in this chapter.

1.6.6 Chapter 6: The study in retrospect

The concluding remarks, an evaluation of the study and recommendations to the women's golfing apparel retail sector and future research, are set.

1.7 SUMMARY

From a consumer perspective, the consumer determines what quality is by comparing the product expectations with actual product performance. According to Solomon and Rabolt (2004:450), product satisfaction is considered a personal and subjective experience and no two consumers will display the same reaction. This could mean that each consumer may perceive physical and behavioural apparel qualities according to their own personal preference regarding the style, design, colour or even price with regards to women's golfing apparel. Therefore, it is important for manufacturers and retailers that market women's golfing apparel to

explore consumer needs, values and expectations regarding the quality of women's golfing and how this influences consumer purchase decisions. Swinker and Hines (2006) study on consumers' perceptions of clothing quality pointed to results that indicated that consumer perception of apparel quality is a multidimensional concept. Therefore, it is pertinent for this study to explore consumer perceptions of women's golfing apparel at the evaluation stage, expectation stage and post-purchase evaluation stage.

Chapter 1 has presented the reader with an introduction and background of the study followed by a problem statement, research objectives, research questions, a brief methodology, chapter layout and summary. Chapter 2 will present a detailed literature review pertaining to apparel quality and its influence on apparel in general and how this may apply to the women's golfing apparel market.

CHAPTER 2

OVERVIEW OF LITERATURE ON APPAREL QUALITY

This chapter describes the dimensions of apparel quality and explores physical and behavioural apparel qualities in relation to how female consumers may perceive quality in women's golfing apparel.

2.1 INTRODUCTION

The previous chapter established an outline for the exploration around perceptions of women golfers with regard to qualities of golfing apparel for women. This chapter focuses on two objectives: 1) To explore the literature on consumer's perceptions of physical qualities found in apparel and 2) To examine consumer's perceptions of behavioural qualities of apparel in terms of its functional and aesthetic qualities. In addition to the role of intrinsic qualities and its influence on functional and sensory aspects of the apparel product, extrinsic qualities such as price, labelling information and store image also have a strong role on the emotional and cognitive reactions of consumers towards apparel quality evaluation (Piancentini and Mailer, 2004) which will also be discussed. To achieve the two objectives set out in this chapter an in-depth view on apparel quality is presented which outlines the relevance of quality in textile composition. This chapter also explores nano-technology and how it has shaped current sportwear like golfing apparel and further examines specific intrinsic textile qualities such as moisture management, ultraviolet protection and eco-friendly textile qualities. Textile qualities such as moisture management, ultraviolet protection and eco-friendly qualities will be discussed and how these textile characteristics may influence apparel quality in women's golfing apparel. The importance of consumer perceptions on apparel quality will also be discussed against the backdrop of the discussion on textile qualities.

This chapter also examines the influence that design has on apparel quality. This influence is found in the study on aesthetic and utilitarian qualities by Morganosky (1984) where the findings suggest that female consumers also often rate the aesthetic qualities such as style and fabric more important than the utility of the apparel product. Therefore, it would be pertinent to understand if female consumers perceive certain aesthetic qualities such as apparel design and style more important when purchasing women's golfing apparel. Furthermore, it should be important for manufacturers and sport retailers to understand the perceptions of female consumers regarding women's golfing apparel in order to ensure consumer satisfaction. As a result the first aspect that will be discussed in this chapter is 'apparel quality' which is defined from various perspectives, as it is important to establish such terms within which to view apparel quality and especially how these definitions may pertain to women's golfing apparel.

2.2 DEFINING APPAREL QUALITY

In this review on apparel quality, specifically in relation to women's golfing apparel, it is necessary to clarify the term 'quality' in apparel quality in general and how 'quality' is defined in apparel from a consumers approach as well as from a manufacturer's point of view.

The literature on apparel quality seems to produce three distinct approaches to defining apparel quality. The first is a holistic approach, the second is a consumer focused approach and the third is from an apparel manufacturing approach. First we look at the holistic approach of 'apparel quality' which is defined by Maynes (1976) as the "degree in which marketers satisfy the consumer's expectations and perceptions regarding the quality of the apparel product". In addition Garvin (1988) has approached 'apparel quality' to include a composition of attributes which is needed to provide the highest level of satisfaction to consumers purchasing the apparel product. On the other hand, Lambert (1980) is more specific in his approach to apparel quality by stating that apparel quality also includes brand name, price,

product features, country of manufacture and store image which then adds to the superiority or excellence of the apparel product.

A consumer - focused approach to defining apparel quality can also be considered apart from the holistic approach mentioned above. In this instance the consumer is the ultimate judge of quality when looking at physical and behavioural qualities of the apparel product (Holbrook and Corfinan, 1985). This approach may also be relevant in the assessment of golfing apparel for women as it will explore the qualities that female consumers perceive as important when evaluating apparel quality. As a matter of fact, Mehta (1992:3) considers apparel product quality to be the main element that satisfies the consumer by either meeting or exceeding their expectations.

To illustrate the importance of apparel quality, Mehta (1992:3) in a study on quality control for the apparel industry, found that 87% of consumers ranked ‘apparel quality’ as the number one criterion when making purchase decisions and 84% of consumers were prepared to pay more for better quality. Moreover, Karnes (1991) supports the idea that consumers use ‘apparel quality’ to guide their purchase decisions. Based on the perceived effect that apparel quality has on consumer purchasing decisions, it may imply that designers and manufacturers of women’s golfing apparel need to understand which qualities are important to women golfers.

Apparel quality also needs to be viewed from a manufacturer’s point of view as garment construction was identified as the best indicator of overall garment quality by consumers (Roger and Lutz, 1990). In a study on quality assurance for apparel Kadolph (1998:193) has indicated that garment construction refers to construction methods used to assemble the apparel product. For instance there are many factors that manufacturers need to consider to determine the overall quality of the apparel which include the choice of fabric, method of construction, seam finishes, buttonhole construction as well as the type of interfacing (Rogers and Lutz, 1990). According to Brown and Rice (1998), such physical qualities form the main component of the manufacturing perspective on apparel quality which are qualities the consumer is able to measure. The reason for this is because the physical qualities allow the garment to perform and appear in a certain way. Fowler and Clodfelter (2000) indicate that the physical qualities are in fact internal to the apparel product and

manufacturers should therefore also take additional physical qualities such as design, fabric, construction and performance qualities into consideration, as this would also add to the performance and appearance of the apparel product.

It has been previously mentioned that consumers frequently evaluate the overall quality of the apparel product. According to Claxton and Richie (1979) when the workmanship of the apparel produced is poor, the consumer attributes this to the use of poor quality materials and workmanship by manufacturers. This means that apparel manufacturers should have a sound understanding of what denotes high quality in garment construction in general which may also apply to sportwear and more especially women's golfing apparel. Rogers and Lutz (1990) once again point out that manufacturer standards of garment construction influence the consumer end-use expectations of the apparel product. This means that consumers may also use all or specific physical qualities when deciding on purchasing women's golfing apparel (e.g. seams and seam finishes, buttonhole construction, the use of interfacings and matching stitching) as these physical qualities might influence consumer acceptance of the apparel product. From the basic perspectives on apparel quality it is, therefore, necessary to discuss the relevant dimensions that form apparel quality as apparel quality cannot be understood thoroughly only from basic definitions. Therefore, the next section will give a broad overview of dimensions of apparel quality and how this can be viewed in the context of golfing apparel.

2.3 DIMENSIONS OF APPAREL QUALITY

Rogers and Lutz (1990) and Brown and Rice (1998) propose that apparel quality comprises of two key dimensions, namely the physical and the behavioural quality dimensions of apparel. The discussion to follow will first provide a broad definition on the physical qualities but will also indicate the importance of the physical and related intrinsic qualities within the context of apparel quality. The second part of this discussion will include the behavioural qualities of apparel quality.

2.3.1 Physical quality dimension of apparel

The physical dimension according to Brown and Rice (1998: 38) specifies what the apparel product is. This means that the physical qualities within the physical dimension are important because they influence the behavioural quality dimension of the apparel product (Abraham-Murali and Littrell, 1995). In this case consumers select apparel products because of the apparel's physical characteristics they believe will result in a specific behaviour (De Klerk and Tselepsis, 2007). On the whole the physical qualities of the apparel product include design, textile composition, construction and finish and are also seen as intrinsic product features (Abraham-Murali and Littrell, 1995). Therefore, the following section will consider some of the arguments on intrinsic apparel quality by different authors in order to conceptualise the construct of intrinsic apparel qualities for this study.

2.3.2 Defining intrinsic apparel qualities

Intrinsic apparel qualities are defined by Olson and Jacoby (1972) as "a product attribute which cannot be altered or experimentally manipulated without first altering the physical characteristics of the product itself". In addition Scheller and Kunz (1998) describe intrinsic apparel qualities as characteristics that exist within the garment itself and include aspects such as fabrication, styles, trims and sizing. Therefore, intrinsic apparel qualities have been considered to be the most important qualities consumers use to determine apparel quality (Brown and Rice, 1998:39). It is also suggested that intrinsic apparel qualities strongly influence consumer satisfaction of the apparel product as intrinsic apparel qualities are largely made up of apparel product characteristics (Brown and Rice, 1998 and Gersak, 2002). This section will discuss fabric as the first intrinsic apparel quality, followed by style and design and lastly manufacturing methods used in the garment construction of the apparel product.

In fact intrinsic apparel qualities found and used on the fabric itself form part of the physical dimension of apparel quality as mentioned by Brown and Rice (1998). According to Kadolph, Langford, Hollen and Saddler (1993:7), fabric also known as textile is the first important intrinsic apparel quality that can influence the aesthetic appearance as well as the physical comfort of the apparel product. For the same reason it would be equally important to understand how consumers perceive the importance of intrinsic apparel qualities to be when specifically shopping for women's golfing apparel.

The second important intrinsic apparel quality which De Klerk and Tselepsis (2007) outline is style and design as this impacts on the fit of the apparel product. Consumers often evaluate apparel products in general on style and design elements as well as how well the garment fits their body type (Fiore and Damhorst, 1992). Therefore, the extent to which intrinsic apparel qualities maybe used to assess apparel quality in women's golfing apparel will depend largely on how female consumers evaluate and perceive these intrinsic apparel qualities.

A third important intrinsic apparel quality as Swinker and Hines (2006) outlined is manufacturing methods used in the apparel construction. Apparel construction is described as the merging of various parts, components and textiles in a permanent fashion to create a finished apparel product (Kadolph, 1998:348). This means that garment construction involves several specifications such as specific stitch type, seam allowance, thread type, zip measurements and other related applications regarding the joining of components to form a workable design which makes up the intrinsic apparel qualities (Kadolph, 1998:348). On the other hand, Rogers and Lutz (1990) argue that garment construction not only involves assembling the garment but also involves the finishing processes such as bleaching and dyeing of the fabric. In the study done by Rogers and Lutz (1990) on apparel quality indicators buyers used to purchase women's sportswear, it was found that garment construction was the best indicator of apparel quality. In other words garment construction influences the overall appearance of the apparel product and consumers evaluating women's golfing apparel, for instance, could evaluate the quality of a golf shirt by the fabric, stitching type, zip or buttons used. The importance of all three intrinsic apparel qualities can, therefore, not be underestimated in the consumer's general

assessment of apparel quality for women's golfing apparel. The next section will explore the behavioural qualities of apparel.

2.3.3 Defining behavioural qualities of apparel

Brown and Rice (1998: 38-39) argue that the behavioural qualities of apparel include what the apparel product can do for the consumer and are determined by the physical as well as intrinsic qualities of the apparel product. In addition Brown and Rice (1998: 39) further argue that the behavioural qualities include both aesthetic and functional performance qualities. Functional performance qualities refer to the utility as well as the serviceability of the garment (example, it is comfortable to play golf in a garment that retains its shape after laundering). Women golfers may consider functional apparel qualities as one of the main apparel quality indicators when shopping for suitable golfing apparel. This is because intrinsic qualities are also known to influence the functional and behavioural qualities within the apparel product (Griffin and O'Neal, 1992). In addition to the functional performance qualities defined within behavioural apparel quality, apparel quality can also be viewed through aesthetics.

Aesthetic apparel qualities refer to the sensory characteristics of the apparel product, in this case the colour as well as the sensory feel of the garment (example, it feels soft on the skin) make up the sensory characteristics of the apparel product. Furthermore Karnes, Shridharan and Kanet (1995) describe the aesthetic behavioural quality as an important quality that adds beauty and brings about an aesthetic experience to the wearer on a sensory, emotional and cognitive level. Apart from the physical and intrinsic apparel qualities as well as the behavioural apparel qualities that have been discussed, the importance of extrinsic apparel qualities have to be considered to understand fully how consumers perceive apparel quality.

2.3.4 Defining extrinsic apparel quality

The role of extrinsic apparel qualities is the second critical element in the consumer's evaluation of apparel quality after intrinsic apparel qualities which have been discussed. Swinker and Hines (2006) define extrinsic apparel qualities as concrete characteristics which may be altered without changing the structure of the apparel product. In other words extrinsic product features are actually the features that appear outside the apparel product (Glock and Kunz, 2000). These qualities include price, brand name and store image (Eckman, Damhorst and Kadolph, 1990).

Fiore and Kimle (1997) argue that consumers used extrinsic qualities such as price and brand name more often to evaluate the quality of the apparel product in general. According to Swinker and Hines (2006), consumers use these intrinsic apparel qualities because they lacked sufficient knowledge on other apparel attributes such as design and textile qualities to make an informed decision on apparel quality. Often price is a poor indicator of apparel quality (Gerstner, 1985) which forces consumers rather to use brand names to determine apparel quality (Marzursky and Jacoby, 1986) than price. This suggests that consumers are not able to single out the most effective extrinsic apparel quality with which to assess apparel quality. It would, therefore, be of interest to determine which extrinsic apparel qualities are more effective when consumers assess golfing apparel quality.

However, Burger and Herbst (2002) state that teenage female consumers used brand names before price (for example Diesel and Calvin Klein) as an important quality indicator which strongly influenced their purchasing decisions. This may be due to the relatively strong brand awareness of teenage female consumers. Moreover, North *et al*. (2003) revealed that a relationship existed between price and the age of the female consumer which strongly influenced their purchase decisions. Again it would be pertinent to understand whether extrinsic apparel qualities play a role in how consumers perceive price and sports brands such as Puma, Nike and Adidas to name a few when shopping for women's golfing apparel. Fiore and Kimle (1997:42) argue that a specific brand name may imply status as a benefit for the female consumer and this may assist her in functioning within a group. In other words in terms of the female golfer, golf can be seen as a social and elite sport in

South Africa and women golfers may rely on branded golfing apparel to allow them to fit well into this social sporting scene. On the other hand consumers purchasing golfing apparel may be completely brand loyal and believe that the garment with a brand name such as Nike would automatically be associated with quality apparel. It is, therefore, necessary to determine if brand plays an important role in golfing apparel quality.

2.4 TEXTILE QUALITIES IN SPORTS APPAREL

Although the previous discussion mainly focused on defining apparel quality from various dimensions, apparel quality cannot be considered without a discussion on the contributions textiles make in defining apparel quality. The following discussion will focus on textile qualities that are also specific to the golfing consumer.

2.4.1 Defining the term textiles

Textiles which are referred to as ‘fabric’ are described as an organised structure of yarns or fibres (Kadolph and Langford, 1998:108). Yarn is actually a continuous strand of twisted fibres used in the manufacture of the textile which refers to natural or man-made fibres (Burke, 2011:56). It is important to understand the differences between both these fibres as natural fibre sources are either animal, plant or mineral based and man-made fibres are either regenerated or synthetic (Moore and Ausley, 2003). According to Burke (2011:56-57), natural animal fibres are taken from the coat of animals for example wool from sheep, cashmere from the Kashmir goat, another natural protein fibre is derived from the cocoons of silk worms which make silk fibres and on the other hand natural cellulose fibres are derived from the fibre on the seeds of the plant for example the cotton plant. Moreover cotton is known for its inherent properties such as breathability, strength, absorbency and softness (Subramaniam, Kunnan and Geethamalini, 2004). It is also important to understand that regenerated cellulose taken from trees and plant sources and such examples

are found in textiles such as rayon/viscose, lyocell and triacetate to name a few (Burke, 2011:56). Synthetic fibres on the other hand are made from oil, coal and tar and are used in the manufacture of nylon, polyester, acrylic and polyurethane. The properties of these textiles include softness, easy drape, strength and durability and are commonly used for outerwear and sportwear (Burke, 2011:57).

2.4.2 Defining textile quality

However textiles also possess of inherent qualities. According to Romano and Vinelli (2001), quality is viewed as a key factor in the textile apparel industry and often relies on a chain of successive inter-linked phases such as spinning, weaving, apparel manufacturing and distribution to create textile quality. More specific each of these components that are used in the manufacturing process of textiles contributes towards the quality of the textile (Kadolph, 1998:348). Furthermore Stamper, Sharp and Donnell (1991:44) argue that textile selection and textile quality are the first most critical factors apparel manufacturers consider when producing an apparel design. The second factor manufacturers consider is that of the consumer because the consumer looks at the textile first and if the textile is appealing only then will the consumer examines the garment more closely (Griffin and O'Neal, 1992). In support of these views Coyle, Wu, Lau, Wallace and Diamond (2007) have indicated that the sport apparel industry has initiated much research into textile processes to help improve qualities regarding personal comfort, functionality and athletic performance of the textiles. This has also resulted in textile designers exploring new technologies for the production of new and pioneered textiles which include the contribution that nano-textiles has made (Chan Vili, 2007).

2.4.3 Influence of nano-technology in apparel quality

It is important to first define the term nano-technology in order to understand how it influences the performance qualities found in textiles. Siegfried (2007) defines nano-technology as “development of research and technology at the atomic or molecular level where the distinctions between quantum physics, molecular chemistry, material science and biotechnology have become less relevant”. In fact because of the nanometer range used in the development of the textile, performance and function of the textile is improved. In addition Ulrich (2006) has described nano-technology as combining old technology in textiles with new developments in science. This means that ‘nano-textiles’ are developed from the application of nano-technology processes during the production or finishing stage of the textile (Kaounides, Yu and Harper, 2007).

Similarly Kadolph (1998) has pointed out that textile finishes are used to enhance the function of textiles which results in performance textiles. Performance textiles are known for their sensing, adapting and reacting capabilities which has led to the emergence of high performance textiles where nano-technology processes are applied to the textile to enhance its qualities (Chan Vili, 2007). In addition the above mentioned performance qualities also suggest that technological advances in textile science have added a new behavioural dimension to textiles which allows textiles to react to environmental conditions or stimuli such as thermal or chemical sources. The result of the development of performance textiles through nano-technological processes has been the upsurge in application within the sportwear industry (Cornnell, 2009). This is partly because nano-technology has introduced antibacterial, moisture absorbing and sun protection qualities in textiles (Cornnell, 2009) of which some of these performance qualities are used in the manufacture of women’s golfing apparel.

In view of the trend seen in performance textiles through nano-technology, Bogatu (2007) has outlined that performance textiles are seen by the sport apparel industry as a possible way of achieving continued growth in textiles. An American company Nano-tex, manufacturing sportwear has transformed the textile industry by implementing nano-technology in the manufacturing of nano-textiles which has

moisture wicking properties, permanent anti-static properties as well as sun protection properties (Subramaniam *et al*. 2004). With this global trend seen in sport textiles Scheller and Kunz (1998) point out that another important factor that consumers consider when evaluating sport apparel is what the textile can deliver in terms of its performance qualities. From these facts it is clear that there are moisture management qualities as well as ultraviolet protection qualities available to manufacturers producing sportwear, however, it is important to establish if such nano-textile qualities influence the way in which women golfers assess quality of women's golfing apparel especially in South Africa. The next section of this chapter will look at two nano-textiles that are specific to the South African golfing apparel market which are moisture management and ultraviolet protection textiles.

2.4.3.1 Moisture management sport textiles

In retrospect moisture management qualities are found in nano-engineered textiles where nano-technology is used during a production stage as a finishing process to the textile (Siegfried, 2007). According to Eckman *et al*. (1990) moisture management is an intrinsic apparel quality and is often found in textiles used in the manufacturing of sport apparel. Its popularity in sportwear is mainly due to the fact that moisture management qualities help promote comfort levels during physical activities which may occur in a game of golf (Surupen, Olgakcioglu, Ozdil and Marmarali, 2011). Moisture management is also sometimes found in some women's golfing apparel which is available at golfing retail stores like the Pro Shop (Pty Ltd) and Golfers Club (Pty Ltd) stores located in Gauteng, South Africa.

In this regard sport retailers' attempts to attract consumers to purchase and make repeat purchases, have led to the marketing of apparel which has better athletic performance and personal comfort qualities in countries such as Europe and America (Sparks, 2007). Furthermore, Coyle *et al*. (2007) have identified textile manufacturers in Europe and Asia who have been instrumental in the area of nano-technology. Similarly Coyle *et al*. (2007) pointed out that moisture management textiles such as 'Coolmax®' a product of Invista (Pty Ltd), an American based

company is manufactured according to an effective fibre-based moisture management system. In other words the textile is able to absorb liquid humidity from the skin, transporting it through the outer surface of the textile into the air (Coyle *et al*. 2007). In addition Ghali, Ghaddar and Jones (2002) define moisture management qualities in textiles as having the ability to retain liquid such as water and perspiration because of the textiles' high absorption properties. Similarly Kadolph (1998:200) defines moisture management qualities as polymers that form temporary hydrogen bonds with water molecules which are characteristic of the textiles moisture absorbing qualities to balance the body's temperature and allow the textile to breathe naturally to enhance comfort. Again Hu, Li, Yeung, Wong and Xu (2005) emphasise that absorption of sweat by the garment is transported via the textile where it is then evaporated. In other words these authors indicate that the faster a textile permeates the better the comfort levels which would assist in achieving a satisfactory level of comfort for women golfers.

The use of nano-textiles such as those with moisture management qualities has directly influenced improved personal comfort and has added better athletic performance during a sporting activity such as golf because of its quick drying qualities (Coyle, *et al*. 2007). Comfort may be viewed as an important quality in women's golfing apparel due to the nature of the sport such as high levels of physical activity. For the same reason Subic, Mouritz and Troynikov (2009) pointed out the advantages of moisture management or wicking properties in performance textiles which have been reported to be extremely suitable for sport apparel such as golf. Moisture management qualities allow the wearer to be free from sweat induced clothes that could impede concentration or their swing technique and also help maintain a clean appearance during a sporting activity (Tang and Stylios, 2006). In this instance it would be relevant to understand how female consumers perceive golfing apparel that carries a moisture management quality in terms of their own understanding and knowledge of this quality and what it can provide for them. The next part of this chapter will discuss the second nano-textile quality ultraviolet protection, commonly found in sport apparel and sometimes found in women's golfing apparel in sport brands such as Adidas, Puma and Nike to name a few.

2.4.3.2 Ultraviolet protective textiles as performance enhancing qualities

This section firstly defines ultraviolet protection qualities and also describes the functions of this quality in relation to women's golfing apparel. The second part of this section then explores the need for ultraviolet protection within the golfing environment and the third part of this discussion focuses on the importance of design quality in relation to ultraviolet protection.

The ultraviolet protection factor (UPF) is defined as the amount of ultraviolet light exposure against how much ultraviolet rays penetrate the skin (Hoffmann, Laperre, Avermaete and Gambichler, 2001). To control the amount of ultraviolet rays which penetrate the skin through the textile, special absorbing agents are incorporated into the textile compilation and this process influences the ultraviolet protection factor provided by the textile (Saravanan, 2007). Furthermore, Saravanan (2007) has pointed out that the ultraviolet protection factor is strongly dependent on the chemical structure of the textile fibres whereby ultraviolet absorbers and optical brighteners are used for effective protection against the sun's rays. In fact textiles differ in their ultraviolet protection potential.

There are different features in apparel that influence the effectiveness of ultraviolet protection. As a matter of fact, Gambichler, Altmeyer and Hoffmann (2002) mentions that the darker the shade of colour used in the textile the more effective is the ultraviolet protection factor. On the one hand the colour of the fabric is important as consumers are drawn to certain colours which may impact on the effectiveness of the sun's ultraviolet protection levels. In addition, Ravishankar and Diffey (1997) also suggest that the extent of ultraviolet protection gained from clothing depends upon a large number of factors, of which the fibre and moisture content are other contributing factors.

2.4.3.3 The need for ultraviolet protection in sport apparel

Kitchin (2007:73) has stressed that climate change and global warming will impact significantly in South Africa, due to the geographic location of the country. Because of the increase in awareness and consumer concern regarding global warming, this has led to changes in consumer behaviour like the use of sun protection cream and clothing with a sun protection factor (Beech and Chadwick, 2007:73). In fact Beech and Chadwick (2007:73) have pointed out that awareness of the power of sun rays, skin cancer and preventative measures to avoid ultraviolet radiation has led sport consumers to purchase products such as sport apparel that carry an effective sun protection factor.

According to Gravel (1997) and Hanke, Zollinger, O' Brian and Bianco (1985), golfers received relatively more ultraviolet radiation than participants in other leisure activities because of the long hours in the sun. Sung and Slocum (2006) have also emphasized that the physical positions golfers tend to take, such as bending to the waist, cause greater exposure through harmful ultraviolet radiation of areas such as the front neck, as well as the backs of golfer's are also at risk of greater ultraviolet exposure. In addition to these areas the authors Sung and Slocum (2006) have indicated that facial elements of golfers were most exposed to harmful ultraviolet radiation. In fact Sung and Slocum (2006) are of the opinion that it would be beneficial to consumers if, for example, golfing apparel was designed to provide increased sun protection to specific areas of the body that receive the greatest ultraviolet exposure. To this effect it would be interesting to determine if consumers consider the design of golfing apparel to assist them in protecting exposed areas of the body.

Due to the above mentioned, ultraviolet exposure means that golfers are considered especially at risk for developing skin cancer because of the cumulative exposure to harmful ultraviolet radiation (Curiskis and Pailthorpe, 1996). Therefore, golfing apparel with an effective level of ultraviolet protection would be an important tool towards sun protection (Hoffmann, *et al.* 2001), as ultraviolet protective textiles have been recognised to be reliable and an effective means of photo protection against

harmful ultraviolet radiation (Edlich, Cox, Becker, Horowitz, Nichter, Britt, Edlich and Long, 2004).

2.4.3.4 Importance of design in relation to ultraviolet protection

Considering the importance of ultraviolet protective textiles and the role these textile qualities play in protecting the consumer in general and more specifically the golfing consumer it is important to consider how these qualities can be merged into the design of sportwear and more especially golfing apparel. Song and Stone (2005) explored consumers attitudes, risk behaviour and preferences regarding ultraviolet protective measures only to find that if the aesthetics of the apparel design was appealing together with the inclusion of a sun protection factor consumers were more likely to consider the apparel as a potential purchase. Van den Keybus, Laperre and Roelandts (2006) have also highlighted that female consumer apparel preferences were enhanced by design features such as fabric quality, neckline design and sleeve length and that participants preferred garment labels that specified the sun protection factor level. This may suggest that garment labels specifying the ultraviolet protection factor is an important element in influencing purchases of ultraviolet protective clothing. Ultraviolet protective qualities could, therefore, play a significant role in assisting female consumers during their purchasing decision of women's golfing apparel.

However, textiles that become wet by air hydration, perspiration or water reduces the ultraviolet protection factor (UPF) ability of the apparel product (Hoffmann *et al*. 2001). This supports the need for moisture management in sport textiles in conjunction with ultraviolet protective textiles for more sporting efficacy. Song and Stone (2005) have highlighted through their study on the consumer understanding and behaviour towards ultraviolet protective shirts that many consumers understood the long term effects of ultraviolet radiation exposure but did not use ultraviolet protective clothing to protect them from radiation. It would, therefore, be valuable to determine if there has been a paradigm shift in this behavioural pattern specifically of female golfers when shopping for golfing apparel and the reasons that might

motivate consumers to consider this quality when making a golfing apparel decision. Women golfers are free to choose their clothing as the sport does not have controlled uniformed clothing compared to athletes in other outdoor sports (Sung and Slocum, 2006). Therefore, it would be important to understand if female golfer's knowledge of ultraviolet protective clothing motivates their purchasing decision regarding women's golfing apparel. With nano-textiles becoming a popular trend used in active wear, clothing manufacturers have blended nano-technology into the style and comfort of golfing apparel as the sport is as much about style as it is about skill (Cornell, 2009). This may very well be the case with golfing apparel but it would be pertinent to understand from a consumer perspective if women's golfing apparel did in fact also include style and comfort together with important performance qualities such as ultraviolet protection.

2.4.4 Considering the significance of eco-friendly textiles in apparel quality

It is important to understand how eco-friendly qualities came about. The authors Dunlap and Jones (2002:485) consider environmental concerns as "the degree to which people are aware of problems regarding the environment and the efforts made to solve the problem either by a willingness to contribute personally to solutions regarding the environment". Based on this understanding the terms 'eco-friendly', 'environmentally-friendly', 'green' and 'organic' qualities are often the terms used to define the process of making products durable, non-polluting, minimizing waste and carbon emissions with little environmental effects (Atilgan, 2007 and Roarty, 1997). In fact the textile industry is seen as the most ecologically harmful industry in the world (Nimon and Beghin, 1999). For the same reason Atilgan (2007) has shown that apparel industries in Turkey have adopted eco-label applications, where the main focus is on protecting the environment and health of the consumer. This has been the result of high consumer demands to address environmental pollution and the impact on consumer health (Hanna and Subic, 2008). Furthermore Subic, *et al.* (2009) argue that in the sport apparel industry, around 80% of the environmental impact that sport apparel products have on the environment occurs during the design

process where decisions are made regarding the selection of materials and manufacturing processes to use. As a result the next section explores the technological opportunities available to sport apparel manufacturers and applications that could be suitable for the design and manufacture of women's golfing apparel in promoting a sustainable and eco-friendly design paradigm.

2.4.4.1 Eco-friendly textiles for sportswear

In support of sustainable design practices fashion designers are now encouraged to use new environmentally friendly raw materials during the production of sport apparel (Subic, *et al*. 2009). In other words eco-friendly textiles are determined by the natural processes used to produce these fibres as well as the way these fibres are used during the production of an apparel product (Roarty, 1997). In this regard Kim and Damhorst, (1998) suggest that organic cotton is considered to be more environmentally friendly because no pesticides, herbicides or insecticides were applied during the growing cycle of the plant. Consequently this process is also followed by the use of natural dyes to reduce further the amount of chemicals used in the fabric (Atilgan, 2007).

Several textiles known today are made from sources that are cultivated without the use of chemicals, for example hemp, cotton, soy, silk, bamboo and jute and are considered eco-friendly (Gam, Cao, Farr and Kang, 2010). On the other hand eco-friendly textiles are also taken from wool and animal sources which are farmed according to environmentally friendly standards where no harmful chemicals are used. In addition the United States have been growing organic cotton fibres under strict National Organic Programme specifications making it more environmentally friendly than the conventional cotton found in America (Gam, *et al.* 2010). Similarly countries in the European Union as Atilgan (2007) has indicated have adopted a safe carbon footprint by reducing carbon emissions. For the same reason Imhoff (1998) has shown that reputable clothing brands such as Levi Strauss & Company, Marks and Spencer and Nike® have made use of organic cotton in the manufacture of their apparel products. To strengthen the attempts of clothing manufacturers to

address environmental concerns, Atilgan (2007) has pointed out that apparel manufacturers are now moving towards the use of eco-friendly fibres in the manufacturing of apparel products. To this effect Imhoff (1998) has shown that a US based company, Patagonia®, manufactures sportwear apparel for the US market and has used recycled materials to manufacture textiles which are then used to produce sportwear. However a growing need exists for eco-friendly apparel products internationally and this has allowed manufacturers to adopt safer eco-friendly practices regarding the environment. Similarly it is important to determine if the demand for eco-friendly apparel products are in fact just as important for the South African consumer and more specifically to the apparel consumer as in the United States of America and European markets.

Irrespective of the attempts made to produce eco-friendly textiles, Cornell (2009) has argued that contemporary women's golfing apparel is mainly performance orientated and is based on highly functional textiles, which may not necessarily accommodate eco-friendly textile qualities that well. In addition Hustvedt and Bernard (2008) point out that more pressure has been directed towards the retail sector regarding eco-friendly textile qualities pertaining to sport apparel which stems from a growing interest in environmental issues. In fact today a number of alternative fibres that are used in sportwear are eco-friendly where clothing manufacturers have applied clean production methods in favour of environmentally friendly production processes (Subic, *et al.* 2009). In other words this method means that safer integrated strategies are applied to clothing manufacturing processes which reduces the risk to consumers and the environment. Consequently this has brought about change in the natural fibre industry where organic fibres are now used, for example organic cotton which is said to play a pivotal role in reducing the toxicity of cotton products (Hustvedt and Dickson, 2009).

Furthermore, Roarty (1997) suggests that clothing designers and manufacturers need to be encouraged to use eco-friendly textiles for the manufacture of apparel products. As a matter of fact bamboo fibres are eco-friendly and are said to be most suitable for sport apparel due to its moisture management qualities as well as its tactile qualities such as its soft touch (Subic, *et al*. 2009). In addition bamboo plants are known to have excellent antibacterial properties as the fabric has the ability to

breathe easily and is biodegradable (Subic, *et al.* 2009). Again other natural sources which are used to develop eco-friendly fibres are taken from natural sources like the soya bean and the seed of the caster oil plant which is regenerated using bioengineered techniques (Subic, *et al.* 2009). As a matter of fact, Singtex Industrial based in Taiwan has claimed to use natural sources such as coffee grounds in the fibre construction and argues that these textiles offer effective qualities like drying, odour control and ultraviolet protective qualities (Subic, *et al*. 2009). This indicates that there are natural fibre sources available which can also be considered as viable for the manufacture of sportwear as in the case of women's golfing apparel. Equally important is to establish if there is a lucrative market available for eco-friendly sportwear and more especially within the women's golfing apparel market.

2.4.4.2 Eco-friendly apparel and consumer's perception of this quality

It is important for retailers to understand how consumers perceive eco-friendly apparel products (Beech and Chadwick, 2007). In fact Gam *et al.* (2010) argue that it is important to evaluate consumer understanding and perceptions of eco-friendly apparel products aimed at a specific market such as women golfers as this will assist the apparel industry to develop successful marketing strategies. This section aims to contribute towards a better understanding of how consumers perceive eco-friendly qualities in apparel products as little is known regarding their purchasing behaviour with relation to eco-friendly apparel in general and in relation to women's golfing apparel which may contain eco-friendly qualities.

To this effect Hustvedt and Bernard (2008) show that consumer demand for eco-friendly apparel products is on the increase as sales figures illustrate that organic cotton fibre products have risen to $1.07 billion in 2006 in America. Similar views by Imhoff (1998) suggest that 'Patagonia®' an International American clothing company produces organic cotton sport apparel to the value of 15 million US dollars annually. This means that apparel manufacturers and retailers are trying to meet the rise in demands for eco-friendly apparel products for consumers in the United States of America.

To indicate the consumer favouritism towards eco-friendly products in general, Loureiro, McCluskey and Mittelhammer (2001) conducted a study on assessing consumer behaviour towards eco-labeled and organic products and found that consumers attached more value to food and apparel products that were marked as eco-friendly. In addition Fotopoulous and Krystallis (2002) found in their study on the purchasing motives of Greek organic consumers that women acted on quality more than price and were guided by eco-friendly specifications when purchasing products. Kim and Damhorst (1998), and Hustvedt and Bernard (2008) showed a social trend in consumers who were more environmentally aware and were prepared to pay more for eco-friendly apparel. Equally important is the fact that eco-friendly apparel products are growing internationally but more specifically in affluent markets due to consumer's awareness of environmental concerns (Roarty, 1997). These issues are important for sport marketers because it may reflect a change in consumer attitude towards the apparel qualities they are looking for and this could perhaps promote a growth in eco-friendly apparel specifically relating to the women's golfing apparel market in South Africa.

More evidence points to a change in consumer attitudes towards eco-friendly apparel products as indicated by Stern and Ander (2008). The authors found in their study on eco-apparel that 12% of consumers actively and 47% of consumers occasionally considered purchasing eco-friendly apparel products. On the other hand another consumer perspective on eco-friendly apparel is described by Meyer (2001) as higher cost, little choice available to consumers as well as aesthetic disadvantages impacted on the consumers purchasing behaviour of eco-friendly apparel. This means that it may be important for clothing designers and manufacturers to establish how important eco-friendly apparel qualities are to the consumer in South Africa in general and if it is a requirement the female golfing apparel shopper considers when making a purchase decision regarding women's golfing apparel. One of the intrinsic apparel qualities previously mentioned in this chapter is design. The next section will consider the relevance of design as a quality through which performance and eco-friendly textiles can be presented in the apparel product to the consumer and the female golfing apparel consumer.

2.5. THE RELEVANCY OF DESIGN WITHIN APPAREL QUALITY

Design is considered an intrinsic quality which is achieved by directly constructing a product. Mason, De Klerk, Sommervile and Ashdown (2008) define design as merging elements such as fabric, style, trims and sizing using principles of design like proportion, balance, emphasis, rhythm and harmony. Fiore and Kimle (1997:37) points out that the construction of these design elements will achieve the desired effect of the apparel product. On the other hand Kadolph (1998) interprets apparel design as the culmination of style, size, fit, construction and features such as zip and button details to create an aesthetic appearance to the apparel product. Even if this is the case, apparel design often influences the aesthetic and functional qualities of the apparel product (Fiore and Kimle, 1997:26). This is supported by De Klerk and Lubbe (2004) who found in their study on apparel quality that the aesthetic experience encompasses the appreciation of formal, expressive and symbolic qualities which promote sensory responses from consumers. In this regard the sensory experience is multi-sensory due to the interaction between the body, the product and the environment (Fiore and Kimle, 1997:37). For example women golfers may have a positive reaction to the touch of the fabric, the fit of the garment and also feel good when wearing it on the golf course. Apparel products not only influence sensory responses from consumers but also emotional and cognitive responses according to Fiore and Kimle (1997) which result from formal qualities. For example formal qualities include intrinsic qualities such as colour, line, texture and proportions of the apparel product which also form part of the design in apparel quality. Consumer preferences may be viewed from a multi-sensory approach, for instance a women golfer may be drawn to the physical lines and silhouette of the garment to wear for golf but the fabric may be uncomfortable which will deter the consumer from the sensory experience. The aesthetic quality in apparel can bring out the beauty of the apparel on a sensory level through the use of colour, for example green may evoke calm and relaxation during a game of golf and a bold red may signify control and confidence towards the sport (Bonds, 1999:16).

On the whole apparel design qualities may play an important role in the decision-making process of the female golfing apparel consumer or apparel purchases in

general. A study by North *et al*. (2003) on the importance of apparel qualities for female consumers shows that female consumers rated design as the most important attribute which influenced their purchase decisions. In support of this fact, Chen-Yu and Kincade (2001) and Morganosky (1984) found that design further influenced the consumer's perception of apparel quality. It still remains the prerogative of the consumer to consider all the apparel qualities discussed in this chapter as well as the contribution design makes to the apparel product when making a purchase decision. It is, therefore, important to explore the role consumer perceptions play in determining apparel quality and if they do have any significance within apparel quality and more specifically to women's golfing apparel.

2.6 THE ROLE OF CONSUMER PERCEPTIONS IN DETERMINING APPAREL QUALITY

Perceptual research has played a major role in understanding how and what criteria consumers use to determine apparel quality (Chen-Yu and Kincade, 2001). One way to examine physical and behavioural apparel qualities is by exploring consumer perceptions of what consumers believe apparel quality is. However, Schiffman and Kanuk (2010:175) define perception as the process by which consumers select, organise and interpret stimuli into a meaningful picture. This means that each consumer may define apparel quality stimuli differently. Therefore, consumer perceptions of apparel quality form a starting point for the assessment of apparel quality (Karnes, 1991) although the concepts of perceived quality and consumer satisfaction are inherently interlinked (Fiore and Damhorst, 1992). According to Swinker and Hines (2006), apparel quality is rather a multidimensional concept whereby consumers use informational indicators such as intrinsic, extrinsic, aesthetic as well as performance qualities to evaluate apparel. More so consumers are increasingly using perceived quality to distinguish among apparel product alternatives. In fact consumers may use certain intrinsic qualities such as design and textile qualities or extrinsic qualities such as brand and price to form an opinion on which to base their purchase decisions. It is, however, important to establish specifically in the female golfing market, which perceived apparel qualities dominate

the purchase decision in order to provide a better quality apparel product to the female golfing consumer.

A study by Karnes (1991) on consumer perceptions of women's apparel shows factors like brand names, designer names, fashion trends, country of manufacture and marketing to contribute to the value consumers attach to these factors that determine the overall quality of the garment. More specifically brand name is used as a strong indicator to determine apparel quality (Mazursky and Jacoby, 1986). According to Karnes (1991) brand image is the perception of a particular brand and the feelings and expectations that it creates in the mind of consumers. Heisey (1990) point out that branded apparel enhances consumer's perceptions of prestige on which consumers base their purchase decisions. For example women golfers may hold certain feelings and emotions towards popular sport brands such as Nike or Puma through which apparel quality is determined. The women golfer may also perceive brands that use textile qualities like 'Coolmax®' to function in a certain manner due to its performance qualities for example, keep them dry and comfortable during a game of golf. In this regard an expectation of the quality of the textile is created.

2.7 SUMMARY

From the above discussion it is clear that the first conclusion that can be made is that apparel quality is a complex aspect that can be viewed from both physical and behavioural dimensions. However, this chapter has explored the finer qualities encapsulated within physical and behavioural apparel qualities and how these qualities may influence the purchasing decisions of consumers in general and specifically female apparel consumers. Secondly, sensory, emotional and cognitive dimensions of the aesthetic experience play a significant role when female consumers evaluate the quality of apparel products. This means that apparel products such as women's golfing apparel on the one hand are seen as having intrinsic physical properties such as design, materials, construction, and finishes and on the other hand the behavioural qualities which specify what the apparel product

can achieve in terms of its functional and aesthetic qualities. In fact some consumers may evaluate women's golfing apparel by the construction and workmanship of the apparel for example seams, hems and finishes. For the female consumer the functional quality is not only about how comfortable the garment fits but also the emotional quality that the garment delivers, for example, evokes a feeling of pleasure and confidence. This may be the case with female consumers purchasing women's golfing apparel as they may evaluate the apparel product by the design and appearance of the golf shirt because they want to look fashionable, trendy and confident during the sport. Thirdly, extrinsic apparel qualities such as price, brand name and store image may also influence consumer perception of apparel quality. Heisey (1990) concluded that price, brand name and store image is important to consumers as an indicator of apparel quality especially when consumers lack knowledge of the apparel product qualities. Thus it would be equally important to understand if female consumers purchasing women's golfing apparel used price and brand names such as Nike and Puma as a measure on which to base their purchasing decisions. Furthermore, Hines and Swinker (2001) in their study on evaluating apparel quality, found that consumer perception of apparel quality is in fact multi-dimensional.

Due to the different facets that influence consumer perception of apparel quality, textile quality is another contributing factor that determines apparel quality. Griffin and O'Neal (1992) point out that the workmanship of the apparel product is often evaluated by the consumer. As textiles form the basic component of most garments, it is also essential to understand the role textiles play in determining apparel quality as not much literature is found currently which addresses consumer perceptions of textiles and apparel quality. According to Rogers and Lutz (1990), textiles used in the workmanship of the apparel influence the aesthetic and functional expectations of the apparel product. This information is especially significant when looking at recent textile developments using nano-technology during the manufacture of sport textiles and how intrinsic qualities have influenced the quality of apparel such in the instance of women's golfing apparel. The textile qualities include moisture management, sun protection and eco-friendly qualities and how female consumers perceive these textile qualities and if at all they use textile quality to base their purchasing decisions on.

The theoretical approaches to apparel quality will be discussed in Chapter 3**,** and aim to discuss the consumer decision-making process that occurs at the purchase stage and again at the post purchase evaluation stage, when applied to women's golfing apparel.

CHAPTER 3

THEORETICAL APPROACHES TO APPAREL QUALITY

This chapter explores theoretical approaches to understand apparel quality and the consumer decision making process and in this regard how women golfers may perceive apparel quality and its influence on their purchase decisions

3.1 INTRODUCTION

Through the literature provided in the previous chapter, it is implied that women golfers may use certain apparel quality indicators to evaluate women's golfing apparel. Several authors have explored apparel quality indicators used by consumers at the point of purchase and during the apparel production stage (Abraham-Murali and Littrell, 1995; Hines and Swinker, 2001; De Klerk and Tselepsis, 2007). The following section will consider some of these arguments for various indicators when discussing apparel quality and their influence on women's golfing apparel. To understand the dynamics of apparel quality various theoretical models, conceptual frameworks and argumentative views can be studied to show the way researchers make sense of the elements involved in apparel quality research. Therefore, theory building in the field of consumer behaviour and apparel has been emphasized as important by several practitioners such as De Klerk, Damhorst and Shim (Du Preez, 2003). Where apparel theory relating to consumers decision making is concerned it indicates that the assessment of an apparel product and its quality is an important step in deciding to purchase apparel and also includes aspects such as the assessment on the quality of the apparel product (Fiore and Damhorst, 1992). Authors De Klerk and Lubbe (2004) and Damhorst (1991) are of the same opinion that theoretical models are equally important to understand consumer decision making behaviour. Therefore, it is imperative also to understand

the marketing dynamics of the apparel industry especially when looking at how female consumers go about making purchase decisions regarding women's golfing apparel.

This chapter looks at a few theoretical approaches with regards to **apparel quality** and discusses possible **consumer decision making processes** consumer's use when judging the quality of an apparel product. Firstly the following theoretical models on the dimensions of apparel quality by De Klerk and Lubbe (2004) and Abraham-Murali and Littrell's (1995) model on consumer's perceptions of apparel quality will form part of an in depth discussion in this chapter. To add Schiffman and Kanuk's (2010:483) simple consumer decision-making model and Engel, Kollat and Blackwell's (1978) low involvement consumer behaviour model will also be presented and compared as a point of departure for developing a conceptual theoretical model from the perspective of women golfing consumers. For one to understand the theoretical approaches to apparel product quality, the next part of this discussion will give an in-depth view into the dimensions of apparel product quality by presenting various conceptual models in which the dimensions of apparel quality are presented.

3.2 CONCEPTUAL MODEL ON THE DIMENSIONS OF APPAREL PRODUCT QUALITY

To understand more fully the dimensions of apparel product quality, researchers like Abraham-Murali and Littrell (1995); Karnes (1991); Kadolph (1998) and Garvin (1987) have all studied various aspects relating to quality found in apparel. In addition De Klerk and Lubbe (2004) looked at the role aesthetics played in consumer's evaluation of apparel quality. Similarly the conceptual model by Kadolph (1998) focused on quality assurance for textiles and apparel. Fiore and Damhorst (1992) and Zeithaml (1998) brought to light the fact that quality is viewed as a multidimensional concept and cannot be measured with a single attribute. One may argue that because apparel quality is perceived according to individual needs of the consumer it becomes important to evaluate this perceptual process in order to

understand the needs of consumers in this regard women golfing consumers. The next part of this discussion looks at some of the contributions made from apparel quality researchers on consumer perception.

Garvin's (1987) study on apparel quality identified eight dimensions of apparel quality which can be applied to a framework when breaking down the concept of quality and exploring basic elements such as performance, features, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Most of the dimensions for apparel quality by Garvin (1988) comprise of measurable product attributes whereas some reflect the consumer's personal choice when purchasing apparel. For example some consumers may base their purchase decisions on a golf shirt that had a reputable brand name such as Nike whereas some consumers may measure the quality of a golf shirt strictly for its aesthetic qualities.

Karnes (1991) study on measuring the value of quality for apparel manufacturers pointed out that Saaty's (1980) analytic hierarchy process made use of pairwise comparisons of apparel qualities. Comparisons were done using a scale indicating the intensity of the relationship between elements of a hierarchy (Karnes, 1991). This process was then captured in priority weights or scores for comparison of attributes (Karnes, 1991). As a result of this analytic hierarchy method both objective, quantitative data and subjective, qualitative attributes regarding apparel quality were captured (Karnes, 1991). A matrix was then set up to carry out the pairwise comparisons and to generate a ratio scale. As a result of this practice, Karnes (1991) reported that a quality model using the analytic hierarchy process may assist clothing manufacturers to identify dimensions of apparel quality that are most important to consumers. In order to do this manufacturers and retailers need to first understand how the consumer perceives apparel product qualities, especially when selecting and purchasing apparel. It would also be pertinent to understand how the physical and behavioural dimensions of women's golfing apparel are perceived by female consumers.

Kadolph's (1998) conceptual model on quality assurance for textiles and apparel illustrates components that contribute to the quality of a finished textile product. The model indicates the relationship between meeting consumer's needs as well as the objectives set out to meet business goals (Kadolph, 1998). Another important

dimension indicated in this conceptual model by Kadolph (1998), is the selection of raw materials, manufacturing processes such as designing, pattern making, cutting and sewing and product characteristics and features. Some of these product characteristics identified were workmanship, size, fit, appearance, function as well as construction of the apparel product. In other words there is a close interactive relationship between all three stages to meet the quality standards of the textile product and very importantly the need to satisfy the consumer. When studying different conceptual frameworks regarding apparel quality, authors such as Abraham-Murali and Littrell (1995), Kadolph, (1998) and Garvin (1988) reflected the importance of why manufacturers needed to understand consumer's needs and be in a position to satisfy their apparel quality needs. Therefore, the next section discusses the schematic framework of De Klerk and Lubbe (2004) on the dimensions of apparel product quality shown in Figure 3.1

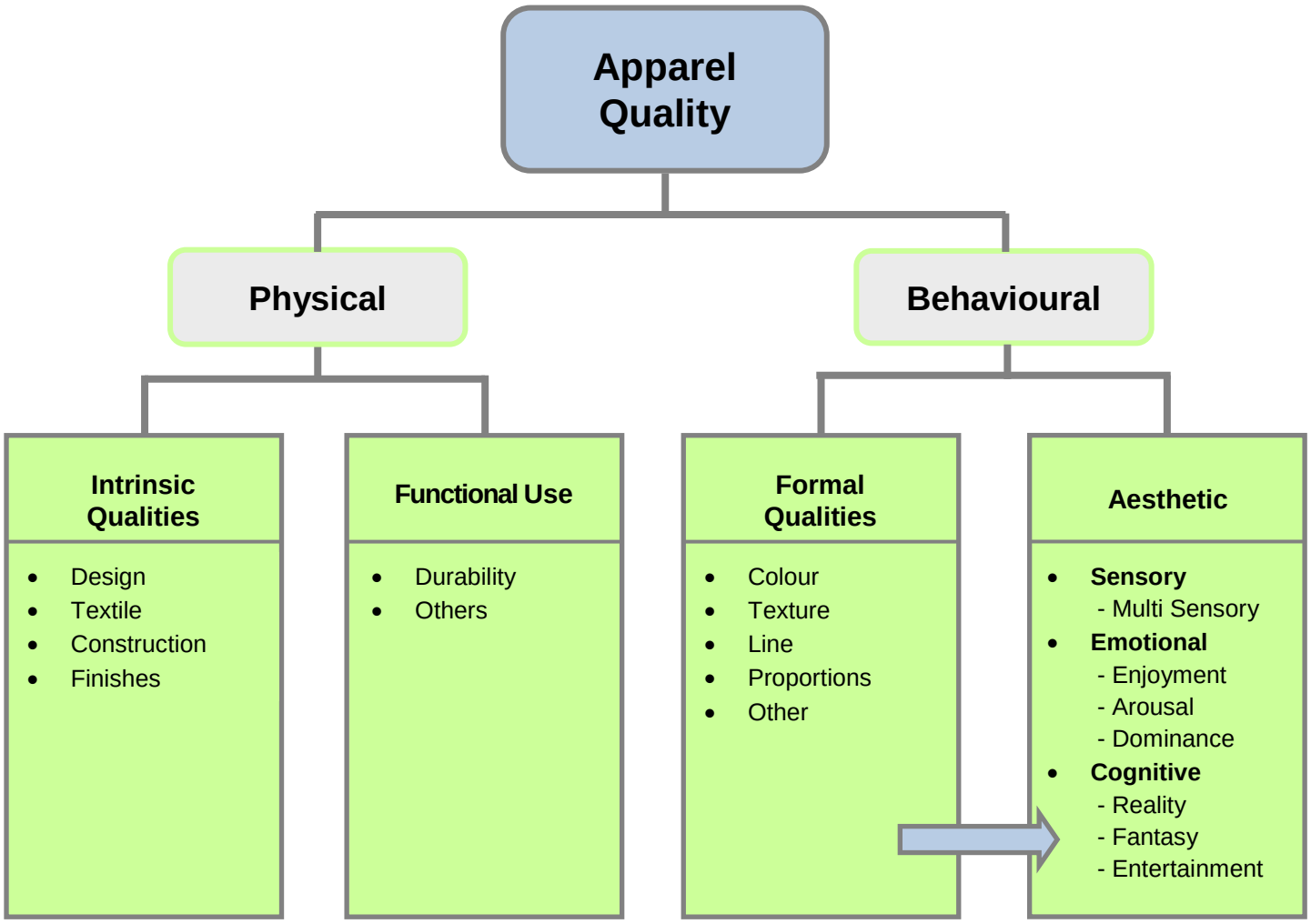


Figure 3.1 Dimensions of apparel product quality, (De Klerk and Lubbe, 2004)

The model by De Klerk and Lubbe (2004) on the dimensions of apparel product quality indicated above in Figure 3.1 illustrates two important dimensions from an apparel quality perspective and these are the physical and behavioural qualities. Brown and Rice (1998:38-39) argue that apparel products have both physical and behavioural qualities and also add that behavioural qualities include both functional and aesthetic apparel qualities. The behavioural quality indicates what the apparel product can do for the consumer and is determined by the intrinsic qualities of the apparel product. De Klerk and Lubbe ‘s (2004) model indicates that the physical dimension is made up of intrinsic qualities like design, textiles, construction and finishes and these apparel qualities cannot be altered without changing the product itself. The formal aesthetic quality of the apparel product refers to sensory aspects of the apparel product such as colour, texture like the feel of the fabric, line and proportions. Fiore and Damhorst (1992) and Szybillo and Jacoby (1974) found that intrinsic qualities related to aesthetic qualities are as important to perceptions of apparel quality. De Klerk and Lubbe’s (2004) model clearly suggests a relationship between intrinsic qualities, formal qualities and aesthetic qualities found in apparel.

In fact the schematic framework shown in Figure 3.1 by De Klerk and Lubbe (2004) focuses mainly on the role aesthetics play in consumer’s evaluation of apparel quality. Aesthetic apparel qualities have been described by Kadolph (1998) as how a textile product like apparel satisfies the consumers’ needs in terms of appearance, fashion preferences, fit and styling. In other words aesthetics include several components such as construction or workmanship of the apparel, that work together to create an overall attractive appearance. Aesthetics are made up of sensory experiences which are described as the interaction between the body, product and the environment when worn by consumers (Fiore and Kimle, 1997:37). Therefore, formal qualities such as textures, colour and proportion may evoke certain sensory experiences, for example wearing red on a golf course may come across as displaying a level of confidence and creating a bold fashion statement. The proportions of the garment as well as the feel of the fabric may influence strong comfort levels especially for physical activity, such as golf where there is much upper body movement.

De Klerk and Tselepis (2007) pointed out that one can also look at how the aesthetic behavioural quality of clothing can evoke certain emotions in the consumer like

feelings of enjoyment, pleasure or dominance. In other words wearing the garment can make the female golfer feel in control adding pleasure to her experience. Lastly the aesthetic behavioural quality also has a cognitive level which means that the consumer may feel like she belongs to a specific group (De Klerk and Tselepis, 2007), for example wearing a branded golf shirt could be perceived as belonging to a social elite group and may provide a feeling of status and belonging for the wearer. One can conclude from the literature that aesthetic qualities play a significant role in apparel quality and this is further supported by Walters and Bergiel, (1989) who outlined that most clothing retailers have focused on the aesthetic qualities as consumers are often guided by aesthetics when evaluating the apparel product.

De Klerk and Lubbe (2004) also indicated in Figure 3.1 that the behavioural dimension found in apparel quality further influences the functional use of the apparel product. Brown and Rice (1998:38-39) and Gersak (2002) are of the opinion that performance qualities of apparel products may be divided into functional performance qualities and aesthetic performance qualities. Functional qualities refer to those characteristics that are involved in the use and durability of the apparel product. In other words the garment should be suitable for the occasion, and the garment should keep its appearance after it is worn and laundered adding to the quality of the garment.

As a matter of fact, Chen-Yu and Kincade (2001) indicated that consumer's satisfaction with apparel products is not only influenced by their physical qualities but also the psychological aspects that the garment provides. Therefore, De Klerk and Lubbe's (2004) conceptual framework was based on well-founded theory, and shows a strong multidimensionality of concepts and relationships looking at apparel quality dimensions and also emphasizes the role aesthetics play in consumer's evaluation of apparel quality. Therefore, based on this theory and understanding it would be important to understand the role aesthetics play in how consumers evaluate apparel qualities regarding women's golfing apparel.

3.3 EVALUATION OF APPAREL QUALITY DURING PURCHASE DECISIONS

Another approach to understand apparel quality from a perceptual perspective is to consider the decision making process and the role evaluation plays in overall assessment of the apparel product. To address this approach Chen–Yu and Kincade (2001) suggest three stages in the consumers' decision making process with regards to apparel quality. This includes the alternative evaluation stage, purchase stage and post-purchase stage. Marketers and retailers need to understand consumer's perceptions of apparel quality because consumer behaviour is viewed as a complex process (Tan, 2010). To this effect, Abraham-Murali and Littrell (1995) present a conceptual model of consumers' perceptions of apparel quality over time which is illustrated in Figure 3.2.

The objective of Abraham-Murali and Littrell's (1995) study was to understand how consumers conceptualize apparel qualities in terms of the fabric, garment construction, care, style, service and reputation. Consumers shopping for products are often exposed to the same stimuli in the same environment but how each consumer recognizes, selects, organises, and interprets these stimuli is seen as a highly individual process (Schiffman and Kanuk, 2010:179). This process involves consumers seeking, choosing, buying, using and evaluating products and services with the intention of satisfying their personal needs and desires (Belch and Belch, 2004). A further reason is that Abraham-Murali and Littrell (1995) are of the opinion that consumer evaluation of apparel starts at the time of purchase and continues actively into the post-purchase stage. This model is based on the assumption that evaluation is part of how apparel quality is assessed and this assessment happens at two critical stages which are at the **expectation stage** and then the **post purchase evaluation stage** shown in Figure 3.2.

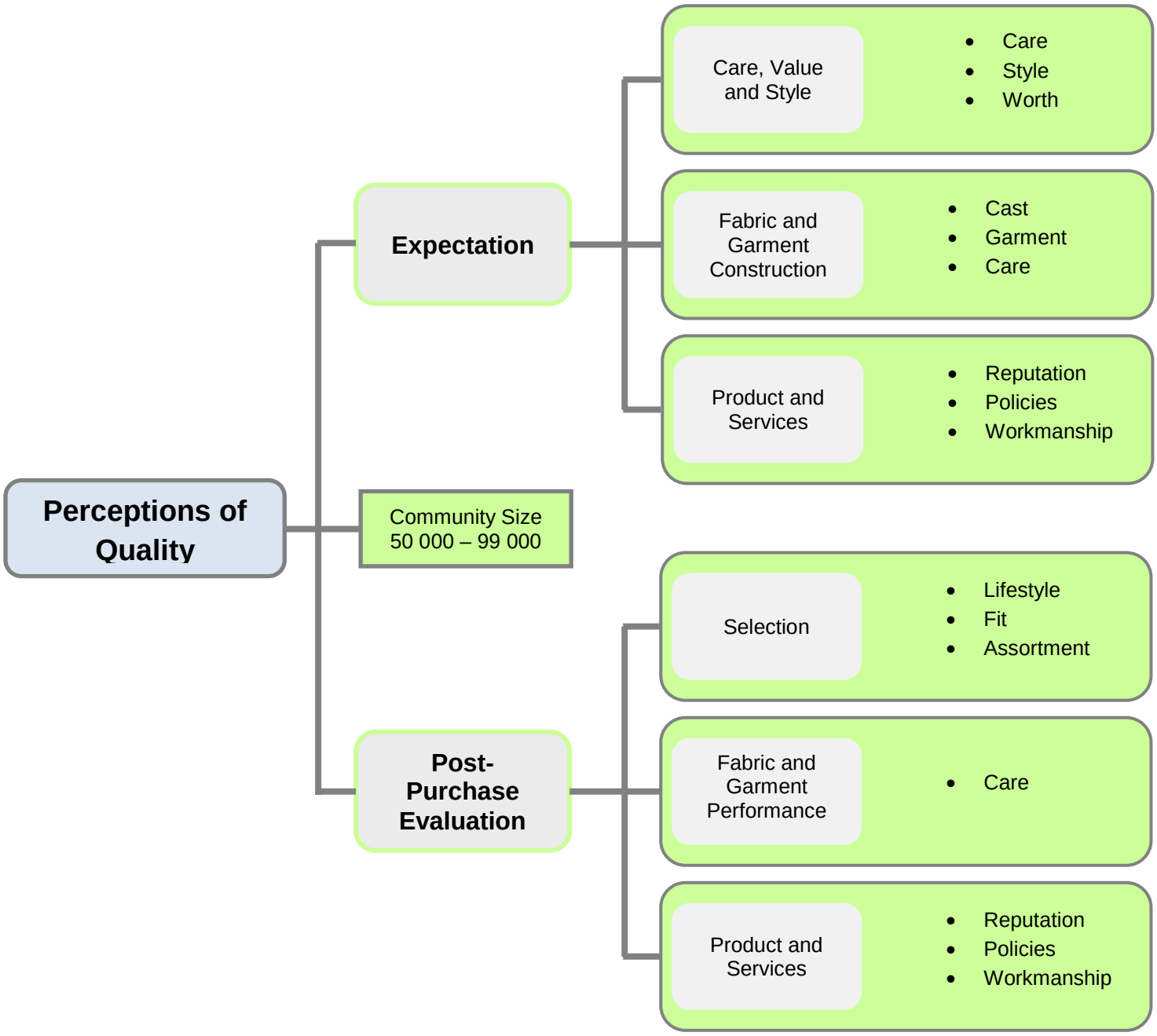


Figure 3.2 Perceptions of quality, Abraham-Murali and Littrell (1995)

The first stage that this conceptual model addresses is the consumer **expectation stage** which occurs at the alternative evaluation and purchase stage. The study focused on female consumers purchasing mail order apparel in this case it was ladies dresses at Lands' End, a major retailer. The expectation stage consisted of a

number of intrinsic apparel qualities such as fabric, garment construction, workmanship, service, care and style. Consumer's perception of apparel quality may also be determined by extrinsic qualities such as cost and brand name of the apparel product. To add consumer perception of product quality may be influenced by the brand name especially from fashion conscious consumer's (Forsythe, 1991). As Sproles and Kendall (1986) point out, brand conscious consumers are in search to buy expensive and reputable brands and they often believe that higher prices mean better quality. Therefore, Abraham-Murali and Littrell (1995) have included both intrinsic and extrinsic apparel qualities in the schematic representation of consumers perceptions on apparel quality. For example consumers may evaluate products by using extrinsic qualities such as brand name and price as well as through intrinsic qualities for example design, style and fabric selection.

From the findings in the expectation stage, it is apparent that fabric and garment construction were mainly used in determining apparel quality. Another factor which emerged as an important dimension of apparel quality was care of the apparel which was found in the fabric and construction of the apparel product. Similar findings by Rogers and Lutz (1990) have shown that fabric selection influences the overall quality of the finished product. In fact the methods of garment construction used by manufacturers were known to influence the end-use expectations of the garment, such as seams, seam finishes, buttonhole construction and interfacings (Rogers and Lutz, 1990).

In support of these arguments Fiore and Damhorst (1992) investigated consumer's perceptions on apparel quality of ladies pants and found fabric as the best indicator of apparel quality. Fabric containing performance qualities such as fibre content and construction were used as a measure to determine quality. For some consumers apparel quality may mean fabric characteristics, for example sensory qualities such as feel, touch and colours used. The expectation stage shown in Figure 3.2 is an important stage because consumers often have expectations of how the garment will perform in terms of its functionality, comfort and durability. For instance in the case of women's golfing apparel, performance fabrics may be seen as important, such as moisture management and ultraviolet protection may be perceived as adding value to the apparel product. This is because a moisture management golf shirt may provide added comfort during the sport.

Abraham-Murali and Littrell (1995) point out that consumer's needed more experience with the apparel product in order to make a fair assessment of its apparel quality. As a result the next evaluation occurs at the **post-purchase stage** which is shown in Figure 3.2. After the buying process consumers evaluated the level of performance of the apparel product against their initial expectations. Abraham-Murali and Littrell (1995) indicated that consumer evaluation varied at the expectation and post purchase stage. After consumers evaluated the apparel product over time it was found that apparel qualities such as care, fabric, garment performance, service as well as workmanship appeared more important whereas selection relating to lifestyle no longer appeared as an influencing factor in their purchase decisions. In other words the performance qualities of the apparel were more important at the post-purchase stage, for example did the golf shirt keep me cool and dry while playing golf. In further support Rogers and Lutz (1990) were also of the opinions that the end-use of a garment influences the level of quality the consumer anticipates especially when looking at the performance level of the apparel product.

From this understanding it is important for retailers and marketers to ensure that the apparel product exceeds the initial expectation of the consumer as this may also ensure continuous return clientele. The next part of this chapter provides an overview of consumer-decision making perspectives and looks at the simple model of consumer decision-making by Schifmann and Kanuk (2010:483) and the low consumer behavior model by Engel *et al.* (1978).

3.4 AN OVERVIEW OF CONSUMER DECISION-MAKING PERSPECTIVES

In light of the discussion on a theoretical perspective of apparel quality it is also pertinent to understand how consumers observe, select, organise information and react to products, more especially apparel. This section aims to discuss consumer decision-making processes and how the different stages impact on apparel consumers purchasing decisions. De Klerk (1999) as well as Du Plessis and Rousseau (1999) point out that the apparel consumer must be studied in the consumers own right, as the decisions taken by consumers purchasing apparel are

not similar to decision-making regarding other products. Consumer decision-making is seen as a problem solving activity where the primary decision consumers make is whether to purchase or not (Rousseau, 2007:259), in this case women's golfing apparel. The need to understand the purchasing behaviour of sport consumers in particular is of increasing importance to sport marketers so that they can devise effective marketing strategies, redesign sport products, monitor price sensitivities, adjust promotional campaigns and customize the sport experience to meet the particular needs of the consumer (Stewart, Smith and Nicholson, 2003:206).

Before presenting an overview of how consumers make decisions, Schiffman and Kanuk (2010:528) pointed out that there are several thought processes that depict consumer decision-making in very different ways. The four views are identified as 1) an economic view, 2) a passive view, 3) a cognitive view and 4) an emotional view (Schiffman and Kanuk, 2010:232). The learning that occurs through advertisements of brands is termed passive or low-involvement as consumers may be more enlightened to purchase such a brand (Rousseau, 2007:192). This means that a consumer can fall into one of these categories when making a purchase. Several decision-making models have been developed to explain the reasoning behind the purchasing decisions that consumers make. Two of these models have been chosen to facilitate the discussion on consumer decision-making in this study. The first is the model of consumer decision-making by Schiffman and Kanuk (2010:531) which indicates three stages to the decision-making process. The second model is on Engel *et al*. (1978) low consumer behaviour model. The integration of these two models will serve as a basis for the decision-making part of the conceptual framework.

3.4.1 The stages in the process of decision making

This section will provide clear explanations as to why the two consumer decision-making models were chosen as a point of departure for this study and their relevance to how consumers make purchase decisions regarding apparel, more specifically pertaining to women's golfing apparel. The simple model of consumer

decision-making by Schiffman and Kanuk (2010:483) as indicated in Figure 3.3 reflects the cognitive (or problem solving) consumer. In fact consumers are known to seek and evaluate information concerning the different product brands and product choices available at retail stores, in this case for women's golfing apparel. Therefore, the emotional consumer is viewed from three distinct stages. First is the input stage, second is the process stage and third is the output stage. This model follows a typical systems approach to consumer decision-making. Whereas the Low Consumer Behaviour Model by Engel *et al.* (1978) indicated in Figure 3.4 is surrounded by four major influences, 1) the **input stage, 2)** the **information processing stage,** 3) the **purchase decision process stage** and 4) the **external influences stage.**

The following discussion will integrate the two models by discussing each phase and showing the possible relation to the purchasing of women's golfing apparel. It would be pertinent to point out that the Engel *et al.* (1978) model differs from Schiffman and Kanuk's (2010) model on simple consumer decision-making because the Engel *et al.* (1978) model specifically includes a low-involvement stage to the decision-making process. The level of involvement consumers engage in is important to understand and more especially when looking at sport apparel such as women's golfing apparel. The reason being that the low-involvement decision making process requires limited problem solving and lower risk when purchasing a product (Rousseau, 2007:192). In this instance when consumers shop for women's golfing apparel they are faced with limited product choices and, therefore, have less information to process at the time of purchase. Contrary to this high-involvement refers to products that are perceived to be a higher risk by consumers and requires more information processing and problem-solving during the purchase process, for example when purchasing a motor vehicle. As a result the next part of this section will discuss each phase of both models in relation to women's golfing apparel purchases.

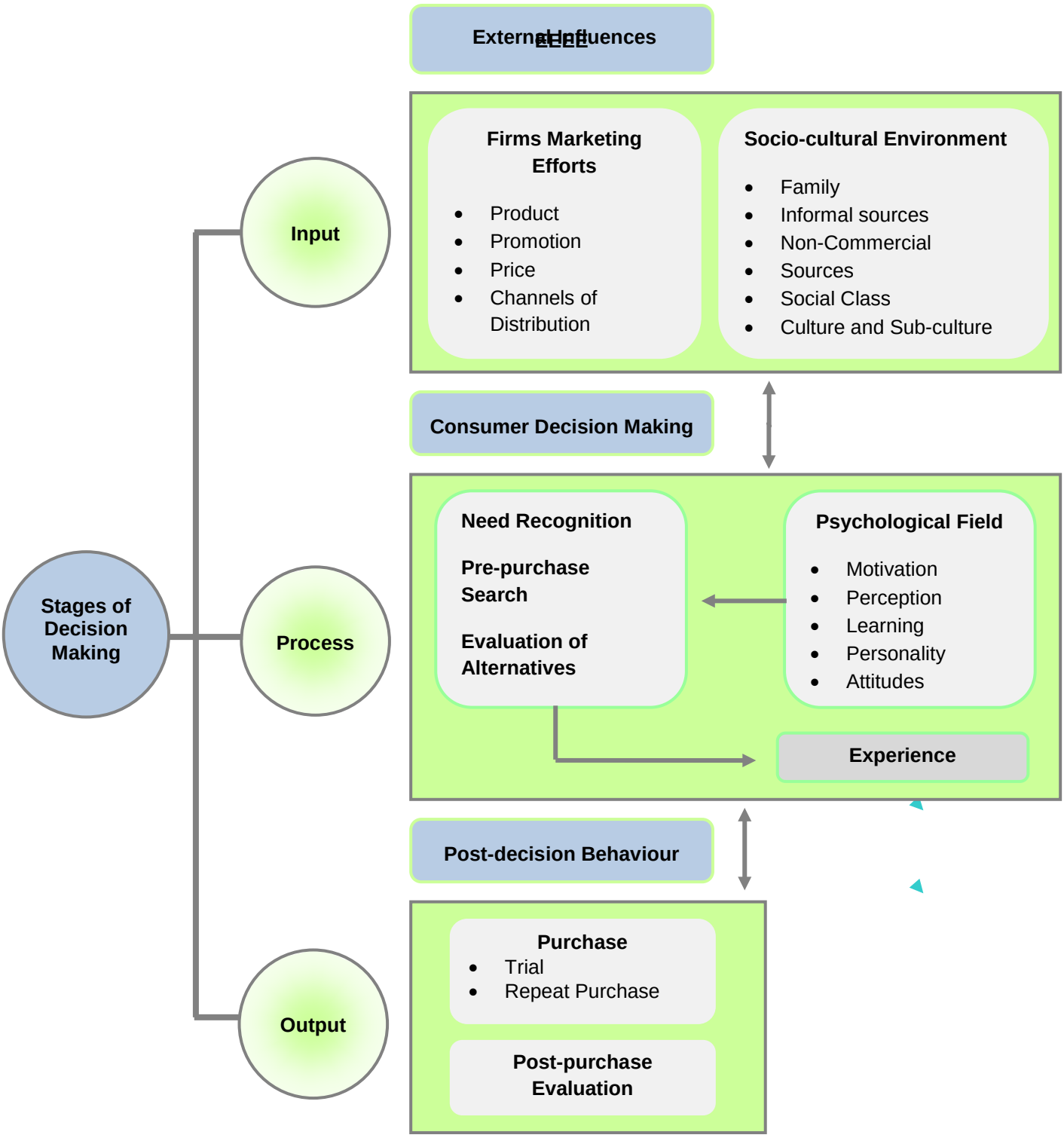


Figure 3.3 A simple model of consumer decision making, Schiffman and Kanuk (2010: 483)

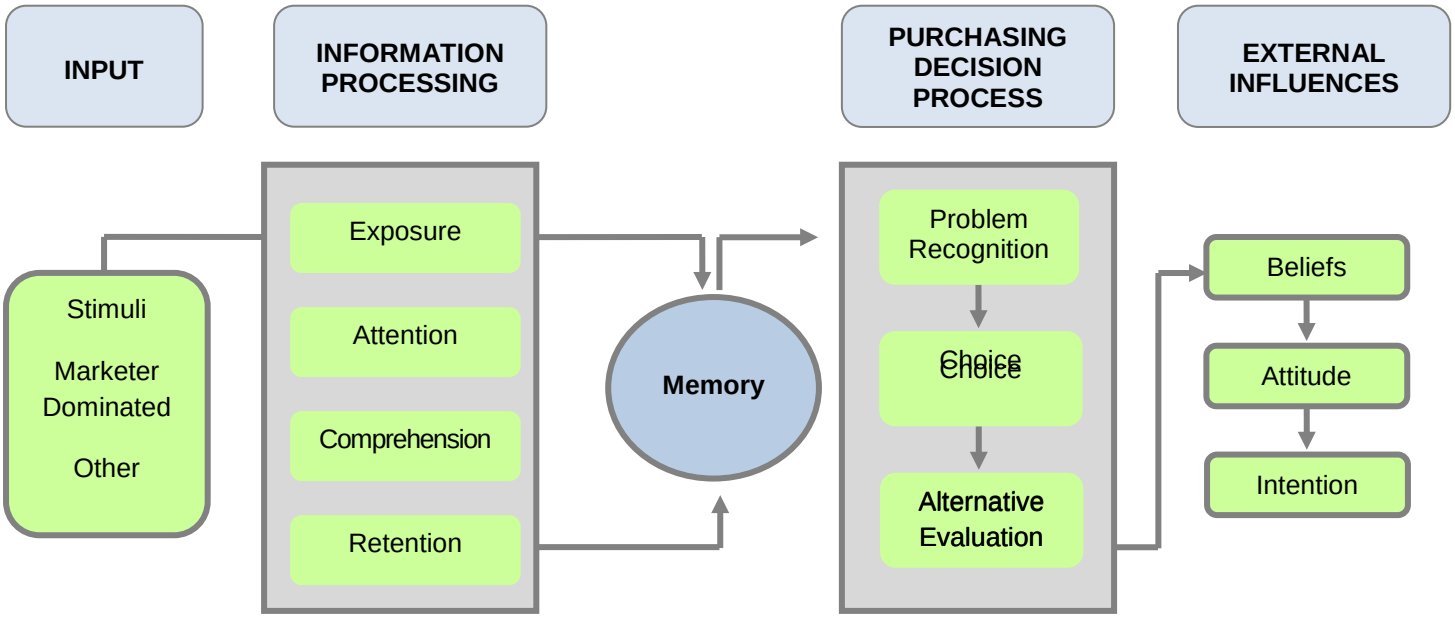


Figure 3.4 Low consumer behaviour model, Engel, Kollat and Blackwell (1978)

3.4.1.1 The input stage

The first stage in Schiffman and Kanuk's, (2010:483) simple consumer decision model and Engel *et al.* (1978) low consumer behaviour model indicates an **input stage** which is largely influenced by external factors through the presence of stimuli. A stimulus is described as a unit of input to any of the senses (Schiffman and Kanuk, 2010:483). This means sensory receptors such as ears, nose, mouth and skin are able to receive sensory information which can influence consumer's perceptions of the product in question. The input stage is known to influence the consumer's recognition of a product need and consists of two major sources of information. Firstly the marketing efforts of retailers concerning the product attributes, price, promotion and where it is sold and secondly the sociological influences on the consumer by family, friends, social class and cultural memberships (Rousseau,

2007:67). The overall impact of the retailers marketing efforts are largely governed by consumer's perceptions of these efforts and how this impacts on their purchase decisions. The simple consumer decision making model by Schiffman and Kanuk (2010:483) lists the stimuli from external influences that occur at the input stage as this is not the case with the Engel *et al*. (1978) low consumer behaviour model. To add, the input stage refers to external sources such as the firm's marketing strategies that are set up to inform and persuade consumers to purchase their products (Schiffman and Kanuk, 2010:483).

Through a sensory awareness created by the marketing of products there is a heightened awareness of stimuli that addresses specific needs for some consumers (Belch and Belch, 2004:103), for example, female consumers who are looking for women's golfing apparel. Sport retail stores such as Golfers Club in Menlyn, Pretoria may include promotional information about the apparel product characteristics, such as performance textile qualities for example moisture management, care labels, price and brand name on swing tag labels to assist consumers with their purchase decisions. It has been pointed out by Sproles and Burns (1994:264) that marketing stimuli include a number of variables that affect the consumer's perception, for example the nature of the product, physical attributes, packaging design, the brand name, advertisements and commercials. The recognition of a problem or need might occur because of an advertisement that the individual can associate with (Sproles and Burns, 1994:264). In fact this may be the case with female consumers shopping for women's golfing apparel as it is important to understand how consumers perceive certain marketing information with regards to intrinsic and extrinsic apparel qualities. Therefore, the next part of this discussion looks at how individuals select and process stimuli from the outside environment during both the consumer decision-making models.

3.4.1.2 The information processing stage

The second stage in consumer decision-making is the information processing stage and organisation thereof so that the consumer can make sense of it in her own mind

(Du Plessis and Rousseau, 2007). According to Rousseau (2007:267), this occurs because the human mind is responsible for processing information that it receives as input because consumers often search and then store relevant information in their memory that would assist them during purchase decisions. Once a need has been activated the consumer will then engage in a search for potential need satisfiers (Engel, Blackwell and Miniard, 1995). In addition consumers with a cognitive view are seen as thinking problem solvers which is shown in the simple decision making model by Schiffman and Kanuk, (2010:483). This may be the case with female consumers purchasing apparel as female consumers are always in search of apparel products that fulfill a particular need. For instance women golfers may be looking for specific sport apparel that has certain physical, behavioural and functional apparel qualities as most golfing clubs in Gauteng have certain dress codes that golfers need to adhere to. The dress code at Woohill and Silverlakes Golf Clubs are golf shirts with collar for a more semi-formal appearance.

In fact Schiffman and Kanuk (2010:481) are also of the opinion that the cognitive view of consumers can be described as having part passive and part emotional views. This is because consumers rely on promotional marketing information and product alternatives to make informed decisions and are sometimes driven by emotion and mood. This can be more so with female consumers who are likely to associate deep feelings or emotions such as joy, love, hope, sexuality and fantasy with certain purchases. In fact Schiffman and Kanuk (2010:482) point out that when consumers make emotional purchases they rely less on pre-purchase information and focus more on their feelings and mood like in this statement, “you deserve it”. This may be true to female consumers purchasing women’s golfing apparel as they may perceive certain sport apparel brands such as Puma and Nike to make them feel like they belong, “I will fit into the group”. In this regard with golf being a social game female consumer’s may want to purchase branded sport apparel that they can associate with status and certain social groups within the golfing fraternity.

During the decision-making process stage the consumer weighs up the positive and negative aspects of each of the available choices and their outcomes. Alternative evaluation can be described as a process through which a consumer compares different solutions to the same problem (Lamb, Hair, McDaniel, Boshoff and Terblanche, 2004:75). Schiffman and Kanuk (2010:488) indicated that when

consumers evaluate potential product alternatives they use two types of information, firstly a list of brands from which they can choose and secondly criteria that they would use to evaluate each brand. An evoked set within consumer decision-making firstly refers to a specific brand a consumer considers when making a purchase, secondly an inept set consists of brands a consumer finds unacceptable and lastly an inert set is brands a consumer is indifferent towards (Schiffman and Kanuk, 2010:488).

In fact Schiffman and Kanuk (2010:490) mention that when consumers evaluate different brands of apparel products they settle for the one that just feels, looks or performs right. As far as choosing between the different “options” where potential garments are concerned consumers make decisions against the background of previous product experience (Solomon, Bambossy, Askegaard and Hogg, 2006: 273). A women golfer may have knowledge from previous purchase experiences regarding a particular brand and if a Nike golf shirt provided comfort, quality and physical performance enhancing characteristics like moisture management qualities, they would consider purchasing that particular brand again. It is important to point out that the evaluation of alternatives in store and the purchase decision occurs faster with apparel products than with higher involvement products such as purchasing motor vehicles (Sproles and Burns, 1994:168). The consequence of a purchase must thus be more obvious at the point of sale in retail stores than at car dealerships.

The consumer might in this phase consider the potential consequences or risk as specific outcomes when purchasing a product. Therefore, consumers may choose alternatives based on the perceived risk of the product regarding the uncertainty and consequence of a purchase decision (Schiffman and Kanuk, 2010:201). Women golfers may purchase golfing apparel to fit within a certain dress code that is socially accepted. Chae, *et al.* (2006) consumer study on fashion involvement of female tennis players indicates that the female athlete may use clothing and appearance to carry out her athletic role, style preferences and even level of expertise. When selecting apparel for golf women golfers may select brands that make them feel confident about themselves as well as meeting the sporting requirements such as a golf shirt with a collar detail.

It can be concluded that cognitive and emotional responses occur at the information processing stage. Consumer's form perceptions of products based on the information received and they process this information according to their personal needs, thoughts and feelings (Crilly, Moultrie and Clarckson, 2004:250-252). Evaluative criteria is applied in the information processing stage and, therefore, implies a degree of quality evaluation before the apparel product is purchased.

3.4.1.3 The output stage

The output stage or purchase decision stage focuses on two kinds of post decision activities, 1) **purchase behaviour** and 2) **post purchase evaluation**. The output stage of the decision making process is when the consumer decides on actually making a purchase.

Schiffman and Kanuk (2010:497) are of the opinion that consumers are known to either make a trial purchase, a repeat purchase or a long-term commitment purchase. A trial purchase is when the consumer purchases a product and then evaluates the outcomes of the use of such a product at the end (Schiffman and Kanuk, 2010:497). Engel *et al.* (1978) point out that consumers' who are involved in low involvement purchases use trial purchases as a substitute for pre-purchase search where they buy the product and then try it, and this is specifically indicated in the low consumer behaviour model in Figure 3.4. When the chosen brand lives up to the consumer's expectations, the consumer often decides to make a repeat purchase (Schiffman and Kanuk, 2010:546). This behaviour will also allow the consumer to make repeat purchases over a longer period in larger quantities. For instance if a consumer purchased a Nike women's golf shirt knowing that it had a moisture management quality and if it had proven to be effective in keeping her dry, cool and comfortable and satisfied all her needs, this would motivate the consumer to make a repeat purchase of the very same brand. It can, therefore, be argued that the purchase decision and the alternative evaluation stage relies on the same evaluation criteria, and occurs almost simultaneously within the apparel clothing decision-making process.

It is also important to understand that search behaviour and purchase behaviour is affected by consumers strong beliefs and attitudes (Engel *et al.* 1995:195). The beliefs held by consumers are important determinants used during the purchase decision, as some consumers may be loyal to certain brands (Engel *et al.* 1995). In the case of women golfers this might imply that she only chooses the sport brand she finds acceptable for her sporting requirements in terms of performance textiles, fit, comfort, durability and style. Thus during the purchase decision stage the consumer also evaluates the quality of the apparel product in question. After the buying process consumers often evaluate the level of performance of the product against their initial expectations of the product.

The post purchase evaluation stage is described by Schiffman and Kanuk (2010: 498) as a stage where consumers purchase products as a trial purchase and thereafter evaluate the product's performance based on their own expectations. The possible outcomes of these evaluations can occur in one of three ways; the first is that the performance meets the initial expectation, which results in neutral emotion by the consumer. The second outcome could be that the performance is exceeded by the initial expectation which causes satisfaction. The third outcome could be that the product performs below expectation, which will result in dissatisfaction with the product (Schiffman and Kanuk, 2010:582). The evaluation process is especially important to retailers to ensure customer satisfaction as well as repeat purchases. For example, a consumer may purchase a golf shirt that is made from eco-friendly textiles together with good design qualities. The consumer might be satisfied with the comfort of the golf shirt as well as how good it made her feel while wearing the garment. The result of this will be satisfaction with her purchase.

3.5 SUMMARY

The consumer decision-making process has been researched often to understand the factors that influence and shape consumer perceptions and their purchase decisions. To more fully understand consumer perceptions of women's golfing apparel quality it was important to explore the consumer's evaluative process at the

time of purchase and again at the post-purchase stage. Despite the growth in women golfers, limited research has been done to investigate the needs of women who participate in golf as a sport. This exploratory study evaluated how women golfers perceived physical and behavioural apparel qualities for women's golfing apparel. The dimensions of apparel product quality by De Klerk and Lubbe (2004) and the perceptions of apparel quality by Abraham-Murali and Littrell (1995) gave more insight into how the apparel qualities such as intrinsic qualities, functional use and aesthetic qualities are perceived by female consumers in particular. The theoretical framework from both these conceptual models is adaptable to the context of this study with regards to exploring women's golfing apparel quality.

The evaluation process occurs at the purchase decision stage therefore the following conceptual models provided pertinent theoretical frameworks in viewing consumer decision-making in a clearer perspective. The Schiffman and Kanuk (2009:483) simple model of consumer decision making and Engel *et al.* (1978) low consumer behaviour model are adaptable to the context of the study on women's golfing apparel. The steps that are involved in the consumer decision making process are similar in both models however women golfers may be viewed as low involvement consumers.

CHAPTER 4
RESEARCH METHODOLOGY

This chapter identifies the research design and research methodology in accordance with the objectives set out in the study

4.1 INTRODUCTION

The previous two chapters have highlighted the theoretical background of this study on the perceptual exploration of apparel qualities that may be applicable for women's golfing apparel. Not only was it important to establish how physical (intrinsic apparel qualities), extrinsic and behavioural apparel qualities were evaluated by female consumers but also how these apparel qualities may influence the female consumer's purchase decisions. A discussion will follow arguing that the research methodology that was most suitable to do a perceptual study of women's golfing apparel qualities and the influence on the purchase decision which also addresses the objectives of the study was used.

The objectives of the study will be briefly stated again to orientate the reader towards the decisions made with regard to the methods used to gather data not only for this but the whole study design. In order to place the methodology and objectives in the right context the conceptual framework of the study is revisited to determine the link between the methodology and the objectives.

4.2 RECAPPING OF CONCEPTUAL FRAMEWORK AND RESEARCH OBJECTIVES

4.2.1 Recapping of the conceptual framework of apparel quality

To explore the perceptions of intrinsic and extrinsic apparel qualities for women's golfing apparel the following conceptual framework was suggested in Figure 1.1 which was also discussed in more detail in Chapter 1.

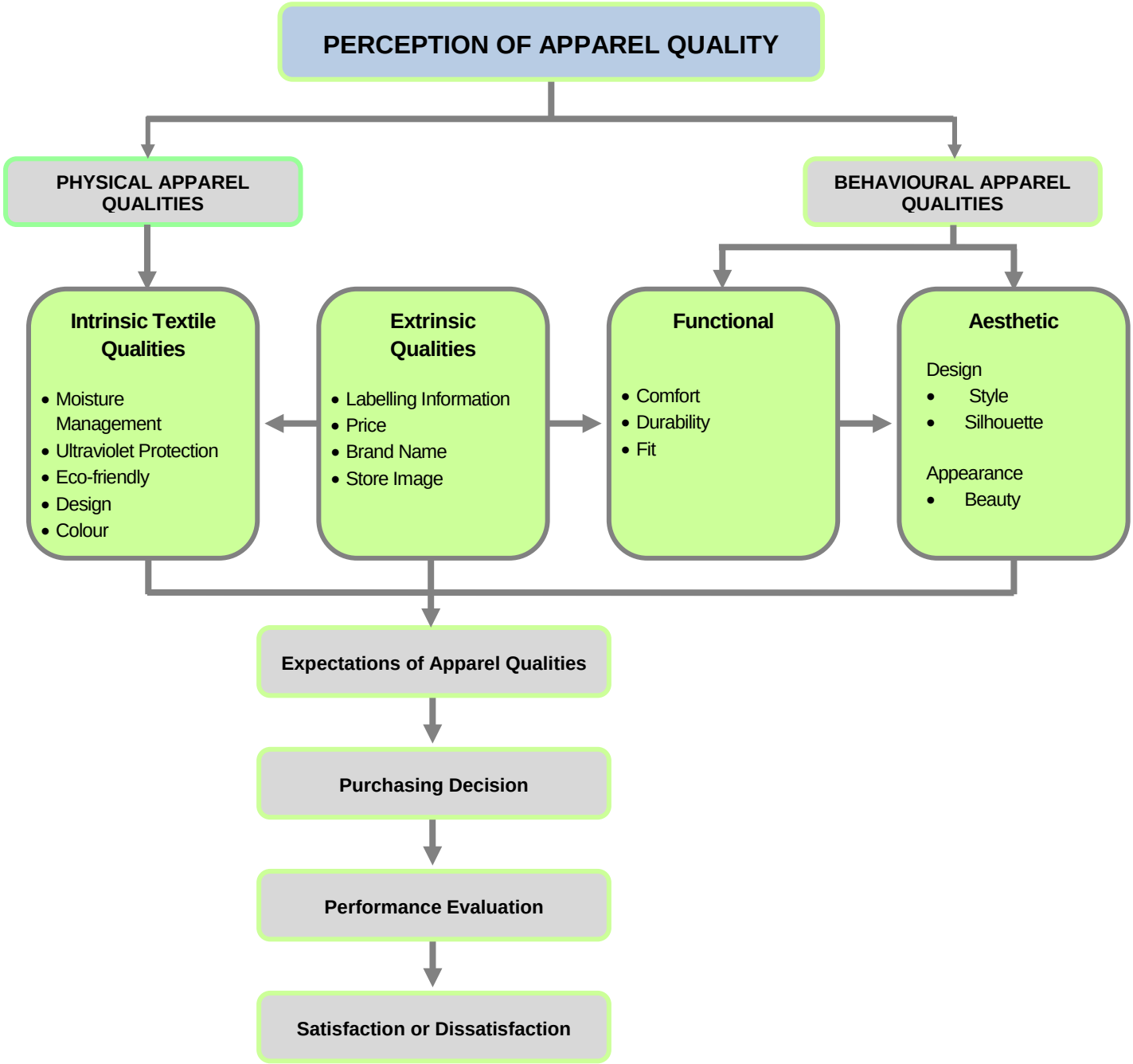


Figure 4.1: Schematic conceptual framework for apparel quality

4.3. RECAPPING THE RESEARCH AIM AND OBJECTIVES OF THE STUDY

With a growing consumer interest towards women's golf apparel the main aim of this study was to conduct a perceptual exploration regarding apparel qualities for women golfers. The study explores physical and behavioural apparel qualities which include intrinsic, extrinsic, functional and aesthetic apparel qualities. It was important to understand how women golfers perceived these apparel qualities and how this influenced their purchase decisions. To achieve this aim the following objectives are outlined below.

4.3.1 Objectives and sub-objectives of the study

Objective 1: To determine consumer perception of the physical qualities of women's golfing apparel.

Sub-objective 1.1 To explore the perceptions of intrinsic textile qualities such as moisture-management, ultraviolet protection and eco-friendly textiles.

Sub-objective 1.2 To explore the intrinsic apparel qualities in terms of design and style.

Objective 2: To determine consumer perception of behavioural qualities found in women's golfing apparel in terms of its functional and aesthetic apparel qualities.

Sub-objective 2.1 To explore the way functional qualities such as durability, comfort and fit are measured by the consumer during the evaluation of the quality of the apparel product.

Sub-objective 2.2 To explore the aesthetic experience of women's golfing apparel.

Objective 3: To determine how the physical and behavioural apparel qualities influence the purchasing decision of women's golfing apparel consumers.

Objective 4: To explore consumer's expectations of physical and behavioural golfing apparel qualities and to determine the extent to which these expectations were met after apparel purchase.

Objective 5: To propose a conceptual model of the perceptual exploration of women's golf apparel quality and its influence on the consumers' purchasing decision.

4.4 RESEARCH METHODOLOGY

4.4.1 Applying the phenomenological research approach to explore apparel quality

A phenomenological research approach was taken as this approach allowed the researcher to focus on the lived experience and describe what all the participants had in common as they experienced the phenomena (Cresswell, 2009:13), which in the case of this study was women's golfing apparel. In addition Henning, Van Rensburg and Smith (2004:33) added that interviews which capture data of the participants' lived experiences, deeply held beliefs or feelings would give rich phenomenological data. Phenomenology is not only a description but is also viewed as an interpretive process in which the researcher makes an interpretation of what they see, hear and understand to get a holistic perspective, (Cresswell, 2009:113-114). In fact this indicates that the phenomenological paradigm is based on mental metaphor which means that the human mind or human consciousness forms the basis for the comparison between the study of man and the study of society (Babbie

and Mouton, 2001:28). In order to achieve this, the researcher used an interpretive enquiry approach and focused mainly on verbal data as a method of data collection.

As a result the phenomenological approach was used to explore apparel quality for women's golfing apparel which allowed the researcher to focus on the actual experience and perception of participants in their natural environment. In fact this also allowed participants to describe their thoughts on physical (intrinsic) apparel qualities, extrinsic apparel qualities as well as behavioural (functional and aesthetic) apparel qualities found in women's golfing apparel.

4.4.2 Importance of the qualitative research paradigm

Since the study took on a phenomenological approach the most appropriate research paradigm to adopt was the qualitative research paradigm. The qualitative research paradigm follows an understanding that individuals are conscious of their own behaviour regarding their thoughts, feelings and perceptions and this information becomes valuable to the researcher (Cresswell, 2009:13). In this regard the qualitative paradigm enabled the researcher to develop an insider perspective of the participant's experiences (Babbie and Mouton, 2001:271) regarding women's golfing apparel. It also gave the researcher the opportunity to construct, describe and understand the experience from the point of view of the participants (Babbie and Mouton, 2001:271) which is the true fashion of the phenomenology. Therefore, the advantage of using a qualitative paradigm for the study lies in the quest for understanding a phenomenon and for an in-depth inquiry into the phenomenon (Henning *et al*, 2004:3). In fact the qualitative approach does not control the variables and it is this freedom and natural development of action that the researcher wishes to capture (Henning *et al*. 2004:3).

Furthermore, by working within the qualitative paradigm the researcher could reduce the experiences of the participants to a central meaning of the experience (Babbie and Mouton, 2001:271) and thus outline a better understanding of the perception of the golfing apparel phenomenon. Therefore, Cresswell (2009:112) states that the researcher in a qualitative study is then able to form an abstract analytical scheme of

a phenomenon. In order to accomplish this, the researcher was able to interact with women golfers to explore their perceptions when they evaluated apparel qualities found in women's golfing apparel. In other words it was important to understand the thoughts and feelings women consumers attached to a golfing apparel product at the decision-making stage prior to their purchase. This could only be achieved by understanding it from the view of the consumer, in order to understand fully the decision-making process that occurs with women's golfers pertaining to quality found in women's golfing apparel. According to Henning, Van Rensburg and Smith, (2004:9), the qualities of the phenomenon in a qualitative study will provide a thick description and a detailed explanation providing rich interpretations and meaning to the data.

4.4.3 Explorative research design

This study is exploratory in nature. According to Babbie and Mouton (2001:79), an exploratory study design serves to provide basic knowledge or further understanding into a certain area within a particular field of study. For instance an exploratory research design has three purposes:

- to satisfy the researcher's curiosity and need for a detailed understanding,
- to evaluate the feasibility of undertaking a more extensive study
- to develop effective methods for the study (Babbie, 2007:89).

Therefore, the purpose of an exploratory study was to get a better understanding regarding the phenomenon as well as to describe these phenomena (Denzin and Lincoln, 2008:127). In this regard the design provided an enhanced understanding and allowed the researcher to obtain insight into a relatively new area when looking at the apparel qualities for women's golfing apparel. The aim of the present study was used to determine the perceptions of women golfers by exploring physical and behavioural apparel qualities for women's golfing apparel. In this case intrinsic, extrinsic, functional and aesthetic apparel qualities were explored to determine how perceptions may have influenced the consumer's purchase decisions.

4.4.4 Unit of analysis for the study

The unit of analysis for this study was 25 women golfers, registered golfers who belonged to respective Golf Clubs in Gauteng and who had purchased golfing apparel in the last six months. In order to address the aim and objectives set out in the study it was important for the target population to consist of women golfers. The importance of considering women golfers for this study was supported by the fact that due to socio-cultural changes in women's sport, marketers have now moved their attention to women who are now more career driven and have made a sport like golf a priority (Veltri and Long, 2000:2). The inclusion criteria also focused only on female golfers who had purchased women's golfing apparel at the Pro Shop and Golfers Club stores in Pretoria in the last six months. Specific age groups and cultural diversity were not considered for this study as it was exploratory in nature and general consumer opinions were important. The study also did not set out to distinguish between groups of consumers or to highlight consumer differences.

4.4.5 Sampling strategy

In light of the fact that an exploratory research design captured within a qualitative paradigm was followed a non-probability sampling strategy was used. Specifically two non-probability sampling strategies were followed that included a purposeful and convenient sampling strategy. By implementing purposive sampling the scope of specific information collected was increased (Denzin, 1989) because participants were selected purposefully on the grounds of predetermined inclusion criteria which also further enhanced the transferability of the data (Babbie and Mouton, 2001:277).

4.4.5.1 Sampling location

To follow the definition of a purposeful sampling strategy the researcher approached women consumers shopping for golfing apparel in Gauteng, specifically at two major golfing retailers, Pro Shop in Menlyn and Golfers Club in Centurion in the Pretoria business district. These two retail stores were chosen as suitable locations because they catered specifically for both men's and ladies' golfing apparel and equipment. Formal letters were given to the Managers of both the retail stores, firstly informing them of what the research entailed and secondly asking them for permission to recruit participants while they shopped for golfing apparel. Recruiting female participants took place on weekdays from 2-4pm. Difficulties were encountered in bringing participants together who were recruited from these areas so a second sampling strategy was considered. A convenient sampling strategy was then adopted to recruit participants for the focus group interviews.

To implement the convenient sampling strategy, the researcher approached women golfers at Silverlakes Golf Club and Woodhill Golf Club east of Pretoria. Both these golf clubs were well established and had a number of registered women golfers and thus provided a suitable data collection environment. The researcher liaised with the Club Captains at both the Woodhill Country Club and Silverlakes Country Club to gain access to female club members. The Club Captain allowed for the use of the Country Club facilities by the researcher. This formed the convenient sample for the study. It was then arranged for the researcher to do an oral presentation to women golfers and only those women that were interested were recruited to form part of the study sample. At the end of the presentation the researcher issued formal invitations to the interested participants to inform them of the date, time and venue, when data collection would take place and their participation in the study required.

4.5 METHODS OF DATA COLLECTION

Data was collected through means of a multi-method approach, which allowed the researcher to use different data collection instruments for the study. In this regard focus group discussions, a sorting task and sentence completion exercises were used as each instrument dealt with specific objectives set out in the study on the perceptual exploration of apparel qualities for women's golfing apparel and a more in-depth discussion on focus group interviews follows in Section 4.5.1.

4.5.1 Focus group interviews

A focus group interview can be viewed essentially as a qualitative data collecting technique that relies on the systematic and simultaneous questioning of a group of individuals in either a formal or informal setting (Denzin and Lincoln, 2008:126). A focus group can be defined as a group interview used to gain a better understanding of the opinions of a certain group with similar characteristics (Babbie and Mouton, 2001:292-293). Furthermore, focus group interviews are seen as a popular data collection method and are widely used in qualitative studies (Denzin and Lincoln, 2008:126). Focus group interviews are often associated with marketing research where the purpose is to gather consumer perceptions on product characteristics as well as service delivery (Babbie and Mouton, 2001:291). Two dimensions of Lazarfeldt and Merton's legacy of using group interviews within qualitative research are still being used today to a) capture people's responses in real life on a face to face basis and b) strategically "focusing" interview prompts based on themes that are prompted by these face to face interviews (Merton, 1957:554)

Krueger and Casey (2000: 24-25) highlighted some of the advantages of using focus group interviews in qualitative research which were considered by the researcher such as, 1) to uncover factors that influence opinions, behaviour and motivation of individuals, 2) to enquire for a range of ideas and feelings that individuals have about a product, 3) to understand differences between groups or categories of people and

4) to pilot test ideas, materials, plans or policies. Qualitative studies by Denzin and Lincoln (2008:128) advocated that the advantage of using focus group interviews is that it is cost effective and produces rich data that is cumulative and elaborative, therefore, based on these advantages the use of focus groups was a very useful tool used to gather data on the perceptual exploration of apparel qualities for women's golfing apparel. On the other hand it is also important to highlight barriers facing the use of focus group interviews. Krueger (1988:47) pointed out that 1) the researcher has to be a skilled moderator to control the direction of the focus group interview, 2) focus group interviews afford the researcher less control than individual interviews, 3) data are difficult to analyze and 4) focus groups are difficult to assemble. For instance in the case of this study, it was time consuming to assemble focus groups that had suitable dates and times that accommodated all the participants at the respective golf clubs.

In light of Objectives 1 to 4 focus group interviews with women golfers were used firstly to investigate their understanding and views on the intrinsic textile qualities of women's golfing apparel. This was done by exploring participant's perceptions on apparel qualities for women's golfing apparel. The advantage of having used focus group interviews in this study was to acquire valuable information around a central topic as a group (Babbie and Mouton, 2001:292). Through this method direct evidence regarding similarities and differences concerning participant's opinions and experiences emerged regarding intrinsic, extrinsic, functional and aesthetic apparel qualities. According to Babbie and Mouton (2001:292), the purpose of a focus group is to find information you would not otherwise be able to access individually but through group discussions, as things may come up which the researcher may not have thought of before.

An interview guide was compiled which included all the questions to be posed to the participants. This structured format ensured that the researcher was able to guarantee question consistency between the different group interviews. The venue for the focus group interviews was at the Silverlakes Clubhouse and Woodhill Clubhouse which were familiar to all the participants who belonged to the respective Golf Clubs and they were comfortable in a neutral and relaxed environment.

The focus group interviews consisted of twenty five women and each group had five women participants who matched the inclusion criteria. To explore objective 1 participants' were asked three different questions each dealing with a different element of the intrinsic apparel qualities which appear in Table 4.1 below.

Table 4.1 Focus group interview structure

Objective 1	Question Asked
Question 1	"*What is your understanding of golfing apparel for women that has moisture management properties?"*
Question 2	*"What is your understanding of golfing apparel for women that has ultraviolet protection properties?"*
Question 3	*"What is your understanding of golfing apparel for women that has eco-friendly properties?"*

These questions were explored in-depth by the researcher through means of probing questions stemming from the response given by the participant. The purpose of probing was to deepen the response of the question (Cresswell, 2009:181) asked and to increase the richness of the data being obtained as this also leads to directing participants to the level of response that was desired by the researcher. Another advantage of the probing technique being used during the focus group discussions was to encourage participants towards giving more information. In this case the probing technique was used to elicit participants' perceptions towards intrinsic qualities such as moisture management, ultraviolet protection and eco-friendly qualities which are sometimes found in women's golfing apparel. Babbie and Mouton (2001:254) point out that it is important for the researcher to probe for responses that would lead to sufficient information for analytical purposes. The added advantage of using the probing technique during the focus group discussions was to allow the researcher time to devise the best, most suitable probes during the focus group discussions (Babbie and Mouton, 2001:254).

The focus group discussions were further used to determine what expectations women golfing apparel consumers had of intrinsic apparel qualities which was related to Objective 4. The question posed to participants to address Objective 4 of this study is presented in Table 4.2.

Table 4.2 Focus group interview structure

Objective 4	Question Asked
Question 1	*"Can you share with us, some of the expectations you might have had when you saw that the women's golfing apparel product you were interested in, had some of the intrinsic product qualities?"*

This question was also explored in detail through means of the probing interviewing technique. The reason for this was to illicit informative responses from participants about their expectations regarding golfing apparel they were interested in. The question addressed Objective 3 as depicted in Table 4.3 and was aimed at understanding the kind of expectations participants had of what the garment was going to deliver due to intrinsic apparel qualities. Some of these intrinsic apparel qualities discussed were moisture management, ultraviolet protection, eco-friendly textile qualities, colour and design qualities.

Table 4.3 Focus group interview structure

Objective 3	Question Asked
Question 1	*"If you consider all the qualities golfing apparel have, such as moisture management, design, fit and functional apparel qualities that we have discussed or that you have mentioned, how many of these qualities contribute towards your decision to purchase these types of golfing apparel?"*

In light of Objectives 1, 3 and 4 the focus group discussions with participants gave insight into how they perceived physical apparel qualities such as moisture management, ultraviolet protection, eco-friendly textiles and design. Secondly participant's expressed their views on expectations they had when they saw golfing apparel they were interested in with some of the intrinsic apparel qualities. Lastly participants expressed their thoughts on how physical (intrinsic), behavioural (functional and aesthetic) apparel qualities for women's golfing apparel influenced their purchase decisions. As part of Objective 1, it was important to establish how participants perceived certain intrinsic, extrinsic, functional and aesthetic qualities for women's golfing apparel so a second research instrument was used called a design card sort to validate and support earlier research findings.

4.5.2 Design card sort research instrument

The participants were subjected to a projective technique, which was a design sort task and this took place towards the end of the focus group discussions. Firstly it is important to understand the nature of projective techniques as this process allowed participants to put their own thoughts, feelings, emotions and opinions in an ambiguous situation (Du Plessis and Rousseau, 2007:27). Furthermore, Webb (1992:125) pointed out that projective techniques like the design card sort can be considered an exercise used to uncover specifically the feelings and beliefs of individuals as they sometimes find it difficult to articulate themselves. To add Bonebright, Miner, Goldsmith and Caudell (1998) indicate that sorting is another method used for collecting similarity data which provide information about perceptual relations among stimuli which can be used for multidimensional scaling. Based on these facts the use of projective techniques like the design card sort allowed the researcher to gain insight into the reality from the participant's perspective when looking at design card sorts containing women's golf shirt designs.

As a matter of fact this method was traditionally used for visual and tactile stimuli Bonebright *et al*. (1998) and it was best suited to meet the objectives of this study as the study focused on exploring intrinsic textile and design apparel qualities for

women's golfing apparel. The design card sort instrument was most suitable as the researcher was interested in investigating the perceptual structure of a large number of stimuli and aimed to collect responses to all stimuli for each of the subjects during the focus group discussions. The advantage of using a design card sort allowed the researcher to study how participants organised conceptual knowledge based on the study (Fossum and Haller, 2005).

The participant completing the design card sort exercise reacts to a specific instruction. As Bonebright, *et al.* (1998) pointed out the instructions for the sorting task can specify specific attributes that the participants should use when forming their groups. On the other hand the researcher can also instruct participants to use whatever attributes of the stimuli they think are important to them (Bonebright, *et al.* 1998). In the case of this study participants were given design cards indicating illustrations of women's golf shirt designs. A photo/visual storytelling or design card sort task was an effective instrument used in the study because the design cards acted as stimuli and allowed participants to express their satisfaction or dissatisfaction with a particular golf shirt design. Each participant received an envelope containing a pack of (20) laminated design cards. The design card sort contained women's golf shirt designs focusing on extrinsic apparel qualities.

Each design card featured critical style qualities such as collars, necklines, sleeve lengths, openings and textile qualities and each of the designs varied in styles. Importantly intrinsic textile qualities like moisture management, sun protection and eco-friendly qualities were also added to each of the design cards. The design card sort was used to determine similarities, differences and preferences regarding the extrinsic qualities as well as the intrinsic qualities of women's golfing apparel. Twenty different design cards were used and contained 20 different designs that varied in the way the extrinsic qualities had been compiled. Some golf shirt designs had only a moisture management quality whereas others had both an ultraviolet protection quality and a moisture management quality. Eco-friendly textiles were also used in some of the golf shirts design. Collars were a feature in most designs while other golf shirts had different neckline details. Sleeves varied in length although still maintaining a sporty outlook. Each of the cards was numbered from (1-20). The design card sort task offered participants the opportunity to make as many sorts of the 20 different design cards by putting as many cards in a pile that the participant

wished to have and as many piles of cards as the participant wanted. After the design card sorting task had been completed the participant was given an opportunity to explain what common elements a particular pile of cards had in terms of its apparel qualities and what made a particular pile of cards different from others that had been made.

Table 4.4 Design card sort research instrument

Objectives 1,3 and 4	Question Asked
Design card sort	*"Each of you sort the design cards in front of you, by making as many piles of cards as you want by putting cards in a pile that have something in common for you and make as many piles of cards as you want. After you have sorted the design cards I would like you to explain why you have put the design cards in each of the piles and what they have in common to you".*

After the participant had discussed each pile of cards, the researcher wrote down the numbers from each of the design cards belonging to a particular pile of cards. To ease the matter of identifying which cards belonged to which group, each group was given a letter of the alphabet. Example of a recorded design card sort would be Pile A had cards 2, 3, 9 and 19. Pile B had cards 4, 5, 6 and 20 in it, etc. Some participants had four piles so it was labelled category A, B, C and D which reflected design card sort 1-20 in each of the chosen categories. Objective 2, dealt with the behavioural apparel qualities, and were explored through the explanations participants gave of why they sorted the cards in a particular pile. These verbal explanations were tape recorded to capture all the words used to explain the differences between these piles.

Similar to the photo sorting task, a second projective technique was used to gather data. A sentence completion exercise was carried out by participants and is discussed further in the next section.

4.5.3 Sentence completion exercise

The third data gathering instrument applied in this research was a sentence completion exercise. The sentence completion exercise was a semi-projective technique used where participants are given an incomplete sentence and instructed to complete it (Donoghue, 2000). Projective techniques such as sentence completion exercise is one of the exercises used by qualitative researchers specifically to extract true consumer-related thoughts and feelings (Schiffman and Kanuk, 2010:52). The sentence completion exercise was carried out by asking an individual to complete a sentence of which the first words are finished by the researcher and this also allows the participant freedom to respond to the idea presented in the sentence (Inselberg, 1964). Another word used to describe a sentence completion exercise is oral scripting whereby participants are required to give open-ended responses to prompts which are recorded to understand the attitudes and beliefs on the given topic (Lichtenstein, Pruski, Marshall, Blalock, Lee and Plaetke, 2003). This was carried out in the study whereby all responses from participants regarding the sentence completion exercise were tape recorded and later transcribed.

However, the advantage of using a well-constructed sentence completion exercise limits any tendency that would lead to a bias response by participants (Lichtenstein, *et al*. 2003). Authors Lichtenstein *et al*. (2003) also highlighted disadvantages of using the sentence completion exercise as these open-ended responses are short, generally lack depth and the responses are difficult to code due to legibility, grammar and spelling used by the participants. In particular to the study on the perceptual exploration of apparel qualities for women's golfing apparel the sentence completion exercise was found to be effective and easy to use with participants. The reason being that participants were requested to jot down their immediate thoughts regarding expectations they had of golfing apparel they had purchased. In other words expectations relating to the qualities found in the garment such as fit, comfort, durability, design and textile quality to name a few. The task allowed participants to project their perceptions on apparel qualities found in women's golfing apparel in a short and concise manner. Participant responses to the sentence completion task were recorded and later transcribed. The data determined whether the expectations

the participants set for women's golfing apparel were actually met after purchase. This formed part of the second part of Objective 3, a sentence completion exercise was performed by the focus group participants by completing the following sentence in Table 4.5.

Table 4.5 Sentence completion instrument

Objective 3	Question Asked
Sentence Completion Task	"*I am going to ask you to think for a minute about the women's golfing apparel items you have bought in South Africa that contain some of the golfing apparel qualities we have spoken about. Now I would like you to complete the following sentence, "In general the expectations I had of women's golfing apparel that I have bought have...."*

The researcher made use of different data collection methods such as focus group interviews, a design card sort task and a sentence completion exercise to gather evidence, examine information and build a coherent theoretical framework. In light of this the next section will discuss the importance of triangulating different data sources through which information is gathered.

4.6 TRIANGULATION OF METHODS

Triangulation was originally used by surveyors to determine the position of a single point using observations from two additional points (Farmer, Robinson, Elliott and Eyles, 2006). In relation to research Denzin (1989:236) pointed out that "triangulation is the use of multiple methods" and has encouraged qualitative researchers to embrace this concept and has argued that multiple methods have more advantage over single methods being used to gather data. This means that by combining

methods in the same study observers can partially overcome deficiencies that flow from one investigative method. Cresswell (2009:214) highlighted that triangulation of methods is a commonly used technique to improve the validity of data which also increases the credibility of the findings. The multi-method approach allows the researcher to convey a rich understanding of human behaviour from several viewpoints (Babbie and Mouton, 2001:275).

This means that various methods were used to gather information on women's golfer's perceptions of golfing apparel quality. In this regard focus group interviews, a design card sort task and a sentence completion exercise was applied as data gathering instruments and each one dealt with specific objectives set out in the study. The use of multiple methods such as these prevents deficiencies that may occur due to the lack of information that comes through from a source. This allowed the researcher to be confident about the data being collected due to the use of more than one data collection method being used (Cresswell, 2009:216). The study by Curtin and Fossey (2007) indicate that the two purposes of triangulation within qualitative research have been highlighted by Shih (1998) as confirmation and completeness.

Triangulation was used in the data collection stage for the perceptual study on women's golfing apparel to,

- evaluate consistency of findings gathered from different sources such as the focus group interviews, design card sort as well as the sentence completion exercise.
- to see how much information was collected from the different instruments used and to evaluate if something new emerged from the data when exploring the perceptions of women golfing apparel qualities and the influence on the purchase decision.

Ellis, Alexander, Cronin, Dickson, Fielding, Sleney and Thomas (2006) outlined that researchers that advocate the use of multiple methods have often spoken about 'integrating', 'combining' and 'mixing methods' and omit these descriptors with the concept of triangulation. Denzin (1989) described four different types of triangulation:

1. Data triangulation, which entails gathering data through several sampling strategies, to draw data at different times and social situations as well as on a variety of people is gathered.
2. Researcher triangulation, which refers to the use of more than one researcher in the field to gather and interpret data in an attempt to compensate for single researcher bias.
3. Theoretical triangulation, however, points to the use of more than one theoretical position in interpreting data.
4. Methodological triangulation refers to the use of more than one method used to gather data. According to Begley (1996) and Shih (1998), there are two types of methodological triangulation namely, across-method and within-method. Curtin and Fossey (2007) point out that across-method triangulation uses both qualitative and quantitative approaches to investigate the same phenomenon in the study. On the other hand within-triangulation uses two or more different methods from within a particular methodological approach to measure the same phenomenon (Begley, 1996). In fact the within method triangulation was used to gather data for the study on women's golfing apparel whereby different qualitative data were collected.

4.7 PILOT TESTING INSTRUMENTS AND PROCEDURES

Before the main study took place the suggested data instruments such as the focus groups, sorting task and the sentence completion exercise that were to be used were pilot tested to determine whether the questions and procedures for gathering data were clear and if participants had problems in understanding or answering the questions directed to them in any of the data instruments. Through this process the researcher was able to determine if the questions were formulated in the best possible way and if meaningful data will be captured in this way through the questions asked. To also determine if the instruments would in fact generate data to address the various objectives set out in the study. The researcher also had the opportunity to test the duration that the focus group discussions took after all the data gathering instruments were applied.

The pilot study was conducted at the Tshwane University of Technology, Arts Campus at Building 25 in the Fashion Design Department boardroom. Professor Kempen, the research mentor was in attendance to observe the proceedings specifically to see if the researcher was able to instruct the participants how to proceed with each instrument as well as to apply the probing technique. The focus group consisted of six female staff members and postgraduate students of various age groups. The piloted six participants were from Pretoria and they were recruited from the Fashion Design Department who participated purely on a voluntary basis. Refreshments were served to all participants prior to the commencement of the pilot study and also to thank each participant for their time given to the study.

The following procedures were carried out when the pilot group convened:

- A general welcome was extended by the researcher (Soloshna Naidoo) who acted as the facilitator of the interviewing session.
- Each participant introduced themselves to the group.
- The researcher then introduced the study and explained the purpose of the study without influencing the discussions. By doing this the researcher wanted to make sure that participants were not brought together under false pretences and misinformation.
- The researcher then informed participants of the use of the tape recorder and explained that the information by the participants would be confidential and the participants' anonymity would be ensured. Participants' were asked if they objected to the use of the tape recorder. No objections were voiced.
- Rules of the focus group sessions were given in terms of having one person speak at a time so that the researcher would be in a position to capture the thoughts and opinions of a particular participant in a clear and concise manner.
- Each participant was provided with paper and a pen before the commencement of the focus group discussions in order to complete different tasks as well as a pack of 20 sorting cards with designs of women's golfing apparel.

Reflection of the pilot session conducted indicated that the instruments that were chosen for the study addressed the objectives set out in the study. Participants understood the questions posed to them in the group discussions. The only suggestion was that the researcher had to work on effective ways of probing for responses from participants to get rich, valuable data. The researcher had to work on keeping to a suitable duration for the focus group discussions as the pilot session had taken three hours to complete. The findings at the end of the pilot session indicated that no additions had to be made to any of the questions that were formulated. The sequence in which each of the data gathering instruments was presented was also not changed.

4.8 DATA GATHERING OF THE MAIN STUDY

The commencement of focus groups occurred during the months of April and May where a total of five group interviews were held and a total of twenty five women golfers were interviewed. Three sessions of group interviews were first held at the Woodhill Country Club in the east of Pretoria and two group interviews were conducted thereafter at the Silverlakes golf club also in the eastern suburb of Pretoria. Focus groups were held on Friday afternoons/evenings as most of the participants were able to avail themselves. Recordings of each of the five focus groups were done and all tape recordings took place from commencement until the end of the discussions. The duration of the focus group discussions lasted approximately two hours and the number of focus groups was determined when saturation had been reached at the end of the fifth focus group. In fact Cresswell (2007:241) defines data saturation as the point where no information can be added to what has already been told by the participants.

4.9 DATA ANALYSIS

Two different forms of data analysis procedures were followed due to the different data that was gathered through the data instruments applied in the study on women's golfing apparel qualities. The first data analysis procedure that will be discussed is the analysis of qualitative data.

4.9.1 Qualitative data analysis for all qualitative verbal data

According to Cresswell (2009:62), qualitative data analysis requires analytical craftsmanship and the ability to capture the understanding of the data in writing. The true test of being a successful researcher is to analyse qualitative data coherently in order to show a sequence or logic (Henning, *et al*. 2004:101).

Firstly content analysis was done on the qualitative verbal data from the focus groups, the verbal accounts of the sorting task and sentence completion exercise where this was applied. Data from the focus group interviews where verbal responses given by the participant from the focus group interviews, sentence completion and verbal descriptions from the design card sort were transcribed verbatim. Transcribing of focus group interviews involved typing each of the five focus group interviews from the tape recordings. This was done in the format of how the focus group interview process occurred, the questions to participants followed by the response of each of the five participants.

The next step involved reading through all the transcripts to get a sense of the overall meaning of how participants perceive apparel qualities found in women's golfing apparel and how these perceptions influence their purchase decision. It is pertinent that the researcher obtains a clear overview of the content to identify themes by studying the transcripts (Henning, *et al*. 2004:104). In qualitative data the researcher has many options on how to analyse the raw data into final patterns of meaning which is referred to as "content analysis" (Henning *et al.* 2004:102).

Content analysis, which is a tool to reduce, condense and group content (Henning, *et al.* 2004:102) was applied to the verbally transcribed data.

To apply content analysis all transcripts from the focus group interviews made use of open coding to find concepts, categories and themes (Henning, *et al.* 2004:105). Open coding codes are made up as the researcher works through the data and it is important that the researcher understands the content of the data to label the units of meaning correctly (Henning, *et al.* 2004:104). Categories then showed themes that were constructed from the data that was discussed. In fact Cresswell (2009:186) is of the opinion that it is important for qualitative researchers to analyze data and use codes that are not anticipated and codes that address a larger theoretical perspective in the research. In this case codes were developed on the basis of emerging data collected from participants'. Through content analysis consumer's perceptions on apparel quality regarding women's golfing apparel emerged.

4.9.2 Quantitative data analysis of the design card sort

The underlying structure of the quantitative nominal data from the sorting task was investigated by means a statistical analysis technique of cluster analysis and non-metric multi-dimensional scaling. Consequently these two techniques required that the design card sorting data be entered as input to the analysis procedures in the format of a similarity matrix. When the data were transcribed the researcher captured the design card sort by illustrating each participant's design card sorts. Each participant put design cards in piles labelled A, B, C, D, E, etc. The design cards numbered from 1-20 were recorded in each of the selected piles A, B, C, D AND E. All 25 participants' 20 design card sorts were recorded in tables and appear in the addendum.

The Statistical Analysis System (SAS) software package, version 9.2 was used to analyze the data and the cluster analysis and multi-dimensional scaling were conducted with the SAS procedures PROC CLUSTER and PROC MDS. The reason for using the analysis strategy is discussed in more detail in paragraphs 4.9.2.1 to 4.9.2.3.

4.9.2.1 Similarity matrix: prepared for the design card sort data input

For the design card sort data, a similarity matrix can informally be described as an array of entries in a table format that indicates how many participants agree with each pair combination of cards containing women's golf shirt designs that they were requested to sort into groups (Donoghue, 2000). In fact a similarity matrix can be defined as a square matrix with an array of numbers arranged in row and column order, in which the entry in each cell for example (*j*, *k*) is some measure of the similarity (or distance) between the items to which row *j* and column *k* correspond. More especially a similarity matrix also has the property of being symmetrical, in other words the lower diagonal of the matrix is the mirror image of the upper diagonal of the matrix. Similarity can be expressed in a number of ways such as co-occurrence, distance, or correlation. In the present study co-occurrence was used as a measure of similarity. As mentioned previously in the golf shirt design card sort, 25 participants referred to as 'sorters' had to sort 20 golf shirt designs (also referred to as 'variables') into groups which the respondents perceived as meaningful. Each of the design card sorts varied in design quality whereas some golf shirt designs contained textile qualities such as moisture management, ultraviolet protection and eco-friendly textile qualities.

Therefore, the strategy followed in this research to develop a similarity matrix was firstly to calculate a symmetrical 20 x 20 matrix for each individual sorter. For example participants in a table cross-tabulated each variable (golf shirt design) with each of the other variables (golf shirt design). This meant that in each sorter's table (referred to as a matrix), a score of one was assigned to appropriate cells to indicate which variable (golf shirt design) co-occurred with which other variables (golf shirt designs) in each sorter's personal category system. This resulted in 25, 20 x 20 matrices being calculated. The matrices for the individual sorters were then added in a second phase resulting in an overall similarity matrix (or co-occurrence matrix) for the sorting task. This matrix was then used as input data for the cluster analysis and multi-dimensional scaling which are discussed in sections 4.9.2.2 and 4.9.2.3 (Grayston, Clark & Miller, 1995). This principle is further illustrated in Table 4.6a, by indicating the first 5 respondents also known as sorters and 5 variables (golf shirt

designs) of the collected sorting data. The entries, ‘1’, ‘2’ and ‘3’, etc. indicated the groups into which respondents sorted the golf shirt designs.

Table 4.6a Classification of golf shirt designs

	Design 1	Design 2	design 3	Design 4	Design 5
Sorter 1	1	1	1	1	2
Sorter 2	2	2	1	2	2
Sorter 3	1	2	1	2	1
Sorter 4	3	3	1	3	2
Sorter 5	4	4	2	4	2

The five individual co-occurrence (5x5 symmetrical) matrices and the overall similarity matrix (5x5 symmetrical) for the five participants are indicated below in Table 4.6 b.

Table 4.6 b Individual co-occurrences and similarity matrix

	Participant 1					Participant 2					Participant 3				
Design	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
1	1	1	1	1	0	1	1	0	1	1	1	0	1	0	1
2	1	1	1	1	0	1	1	0	1	1	0	1	0	1	0
3	1	1	1	1	0	0	0	1	1	1	1	0	1	0	1
4	1	1	1	1	0	1	1	0	1	0	0	1	0	1	0

5	0	0	0	0	1	1	1	0	1	1	1	0	1	0	1
	Participant 4					**Participant 5**					**Similarity matrix**				
1	1	1	0	1	0	1	1	0	1	0	5	4	2	4	2
2	1	1	0	1	0	1	1	0	1	0	4	5	1	5	1
3	0	0	1	0	0	0	0	1	0	1	2	1	5	1	2
4	1	1	0	1	0	1	1	0	1	0	4	5	1	5	1
5	0	0	0	0	1	0	0	1	0	1	2	1	2	1	5

In the similarity matrix, the golf shirt designs which most often grouped together had the highest score. As indicated in Table 4.6b the similarity matrix illustrates what the co-occurrence score of designs 2 and 4 is, for instance five indicates that these golf shirt designs were very similar and, therefore, grouped together by all five participants.

As a result the similarity matrix was calculated for the entire set of 20 golf shirt designs including the 25 participants and this matrix was also then used as input data for the following, 1) cluster analysis, 2) multi-dimensional scaling, 3) bi-plots and 4) dendogram analysis which are discussed in more detail in section 4.9.2.2 and 4.9.2.3.

4.9.2.2 Cluster analysis

As mentioned in the preceding paragraph 4.9.2.1, the input data for a cluster analysis is a (type of) similarity matrix. This type of similarity matrix used as input in the current study is a co-occurrence matrix. Cluster analysis or clustering is the assignment of a set of variables (golf shirt designs) to subsets in such a way that variables in the same cluster are similar in some unknown way. In other words a combination of ‘unknown’ qualities and at the same time different from variables in

other clusters with regards to these qualities (Stockburger, 1998). Clustering is used in many fields, including machine learning, data mining, pattern recognition and information retrieval to name a few. Furthermore, it is a multivariate method which resembles principal components analysis in the sense that it is also a dimension reduction technique (Young, 1985).

As a matter of fact several clustering techniques exist. For example, a hierarchical statistical analysis algorithm finds successive clusters using previously established clusters. These algorithms usually are either agglomerative "bottom-up" or divisive "top-down". An agglomerative algorithm such as the technique used in the current analysis, begins with each variable (golf shirt design) allocated to a separate cluster and it merges these variables (golf shirt designs) into successively larger clusters. The hierarchy of clusters can be represented graphically in a tree structure called a *dendrogram* which illustrates the similarity structure or ‘closeness structure’ of the similarity matrix. In Chapter 5 which follows, the PROC CLUSTER analysis was used to define the variables (golf shirt designs) within each cluster, show the number of clusters in the structure and to present graphically the structure of clusters. The reasons can then be considered and discussed as to why these particular variables group together. In fact the next part of this discussion looks at multi-dimensional scaling which provides reasons for these particular groupings.

4.9.2.3 Non-metric multi-dimensional scaling (NMDS)

Similar to cluster analysis, the input format of data for multi-dimensional scaling analysis is a similarity matrix. The type of data collected in the golf shirt design sorting task of the current study is classified as nominal data. In instances like these, non-metric multi-dimensional scaling proves to be an appropriate form of the technique to conduct.

Non-metric multi-dimensional scaling can be described as a technique from a set of data analysis techniques that displays the structure of distance-like data (in the case of NMDS, a similarity matrix such as a co-occurrence matrix) as a geometrical picture. NMDS pictures the grouping-structure of variables (golf shirt designs) whose

interrelationship is expressed in a similarity matrix, in one, two, or three, or more dimensional Euclidean space. The space is mostly described as one, two or three dimensional. The graphical display is arranged in such a way that each variable is represented by a point in the multi-dimensional space so that distances between pairs of points have the strongest possible relation to the similarities between the pair of variables in this case the women's golf shirt designs. That is two similar variables (golf shirt designs) are represented using two points that are close together in space and two dissimilar variables are represented by points that are far apart in the space (Young, 1985).

The dimensions associated with the graphical presentation of the similarity matrix are assumed to represent the underlying (unknown) structure of the similarities calculated between the variables. In this case the purpose of the graphical display in NMDS is to explain the structure suggested by the display of clusters in relation to the dimensions of the display, for example the position of and distances between clusters in relation to each dimension of the Euclidean space. All variables found in the golf shirt designs presented in the design card sort had certain intrinsic apparel qualities in common, for example, moisture management textiles, eco-friendly textiles, colours, style and design qualities. Hence each individual variable had varying degrees of these qualities and for each dimension (each axis of the 1, 2, or 3, dimensional space) similar and dissimilar level-combinations of qualities illustrated the closeness and distance between the variable clusters.

A realistic explanation for the spread of clusters over a dimension will further explain the reason or underlying dimension of the similarity structure. In the study on women's golfing apparel qualities the level-combination of qualities within one cluster in relation to the spread of other clusters over a specific dimension could identify the cluster as an eco-friendly and ultraviolet protection subset of designs or the other clusters as less eco-friendly and providing less ultraviolet protection. As a result the underlying dimension associated with this spread of clusters over a dimension could then be labeled as having eco-friendly qualities and ultraviolet protective textile qualities in the golf shirt designs.

Furthermore the current study on the SAS Proc MDS procedure was used to perform several exploratory non-metric multidimensional scaling analysis on the similarity

matrix and finally concluded with a three dimensional model as the most appropriate fit. As a result the final analysis was conducted as row-conditional on the ordinal level with a weighted Euclidean model. In light of these findings the results of the NMDS will be discussed in more detail in Chapter 5.

A similarity matrix can be derived in different ways for example using the Procedure Proc Distance of SAS. In this particular instance, the similarity matrix was used in two SAS procedures mentioned in the previous paragraph and was derived as follows, 2 x 2 frequency tables between the 20 golf shirt designs were calculated to obtain the number of times that the 25 participants grouped any two designs together in any group. The maximum number of groups that any participants used was 6, for example it was labelled from ‘1-6’.

There were six frequency tables that demonstrated how each cell in the similarity matrix was populated. The total of the diagonal of each frequency table which represented the number of times that the design (I and J) were placed in the same groups 1, or 2, or 6 by the participants were entered in the I row-by-J column cell of the similarity matrix. The corresponding colours in the frequency tables and matrix indicates the process. Hence the similarity matrix was then used as input to the SAS procedures which resulted in cluster analysis and multi-dimensional scaling. The next section will discuss how data was analysed for the design card sorting task.

4.9.3 Data analysis methods used for the design card sort

The data analysis from the design card sort was prepared for analysis in the following manner. Firstly the design card sort was best investigated by means of a cluster analysis and multi-dimensional scaling method. Further investigation also indicated that procedures in the Statistical Analysis System (SAS) software package were most suitable to analyse the data. Therefore, these two procedures required that data be entered as a similarity matrix. A similarity matrix can be derived in different ways, for example using the Procedure Proc Distance of SAS.

The multidimensional scaling adopted several exploratory analysis methods. In the final analysis, it was required that three dimensions should be investigated. The data was analyzed as row-conditional at the ordinal level of measurement and the weighted Euclidean model was used.

The rows in the data matrix represent the design cards and the columns represent the participants. To add the data matrix can be described and illustrated as the number indicated in italics is the sort pile number in which the particular design cards was sorted. For example participant 1 put design card 1 and 2 in Pile number A. Whereas participant 2 also put design card 1and 2 in Pile B and so did participant 4. This meant that design card 1 and 2 had something in common for example similar apparel qualities that may have had a particular meaning to participants and represented particular reasons why they have been put together.

In summary of the data analysis it can be concluded that the use of a cluster analysis provided a clear description of the various clusters that underlie the similarity structure of the sorting data and that non-metric multi-dimensional scaling assists in visualising, interpreting and explaining the underlying structure of the similarity structure. It further explains why similarities and dissimilarities exist between some golf shirt designs by scaling the grouping/cluster structure over a few dimensions in a multi-dimensional space and presenting the results visually. The results of the NMDS will be presented in Chapter 5.

4.10 QUALITY OF DATA

4.10.1 Validity

Validity of research is concerned with the appropriateness of the measuring instrument in two ways. On one hand the instrument must fit the outcome of the study and on the other hand the instrument must measure the concepts accurately (Babbie and Mouton, 2001:122; Delport, 2005:160; Bless and Higson-Smith, 2005:130). According to Mouton (1996:109), validity should be considered throughout the entire research process, from conceptualisation to the outcome of the

study. The validity framework (Mouton, 1996:111) categorises validity into two main areas, namely theoretical validity and measurement validity. These areas will subsequently be discussed in terms of the perceptual exploration of apparel qualities for women's golfing apparel.

4.10.1.1 Theoretical validity

Theoretical validity is concerned with the clarity and simplicity of concepts regarding the theoretical framework that forms the basis of the study (Mouton, 1996:111). The concept of apparel quality, how physical and behavioural apparel qualities are perceived and evaluated by consumers are clearly defined from the relevant literature. Apparel quality for women's golfing apparel in particular was measured at two different stages within the purchasing process, firstly the decision-making stage and secondly the post-purchase evaluation stage. This was done whereby focus groups were held with women golfers to discuss how they evaluated apparel qualities at the decision-making stage and at the post-purchase evaluation stage. Focus groups were used to verify and further provide an understanding of how apparel quality for women's golfing apparel was perceived by the target population. Validity of concepts and wording used in the instruments was ensured through the use of focus group interviews.

4.10.1.2 Measurement validity

This refers to the relationship between the theoretical concepts and the measuring instrument (Mouton, 1996:128). Measurement instruments thus need to measure the relevant concepts (Neuman, 2000:167).

- Face Validity is concerned with what the measurement tool appears to measure (Delport, 2005:161). The instruments used to measure the objectives set out in the study for women's golfing apparel were 1) focus

group interviews, 2) a design card sort and 3) a sentence completion exercise.

- Content Validity is concerned with the extent to which the measurement tool covers a range of meanings (Babbie and Mouton, 2001:123). To ensure content validity transcripts from focus group interviews and sentence completion exercises together with the data from the multi-dimensional scaling data was used.

4.10.2 Reliability

According to Cresswell (2009:190), reliability is the consistency of a measurement procedure. Therefore, similar results should be obtained each time through the repetition of a measurement procedure. Incorrect observations, researcher bias and environmental effects can hamper reliability during data collection (Mouton, 1996: 111). The following strategies were implemented to ensure the reliability of the study:

- A pilot testing of the focus group was conducted with staff at the Tshwane University of Technology, Fashion Design Department to test the instruments designed for the study. No changes were made as the instruments used addressed the objectives set out in the study.
- All transcripts were edited to ensure that no mistakes were made during transcription.
- All coding was checked to ensure that it was a true reflection of the data from the transcripts.
- Adequate instructions were given to participants to avoid confusion during the design card sort task and the sentence completion exercise.

The trustworthiness criteria checklist reflected in Table 4.7 below was followed during the methodology of this study. The checklist outlines important strategies that were applied to the qualitative study on the perceptual exploration of women's

golfing apparel qualities and the influence on the purchase decision. Credibility, member checking, collaboration, transferability and conformability formed part of the research strategy.

A pilot testing of all research instruments was performed to see if it addressed the objectives set out in the study. The first task of this analysis was the transcribing of data from focus groups and ensuring that transcripts did not contain obvious mistakes during the transcription of data gathered from the focus group interviews. The researcher used member checking to ensure that participants agreed with the findings and results of the study and the objectives were achieved.

Table 4.7 Example of the trustworthiness checklist used in the study

Strategy	Criteria	Application
Credibility	Field Experience	A pilot testing of instruments was performed with female staff members at TUT. Enough time was spent with participants allowing them to verbalise their perceptions and to ensure the instruments used addressed the objectives set out in the study.
	Reflexivity	Field notes were taken during the focus group discussions and thereafter compared with the transcribed data.
	Triangulation	Data collection through verbatim transcribed interviews from the focus groups, design card sorting task and sentence completion exercise with participants. Concepts and themes were identified and argued by the researcher.
Member Checking	Participant Involvement	Providing findings to participants for them to read, comment on and contribute to the findings.
	Validity	To ensure the data analysis is congruent with participant's experiences.
Collaboration	Engagement	Collaboration between researcher and participants' to ensure that the objectives of the study are met.
Transferability	Selection of Samples	A purposive sampling method was used to recruit women golfers in Pretoria.
Conformability	Conformability Audit	All records and transcripts were kept.

4.11 RESEARCH ETHICS

Ethical issues in social science studies are often concerned with researchers exploring answers to their research undertakings at the expense of individuals of society (Babbie and Mouton, 2001:520). Kvale (2007:109-118) indicates that once the interview schedule has been finalised the next step would be to start the process of ethical approval. The ethical approval for the proposed study was sought from the Ethics Committee of the College of Agricultural and Environmental Science. The next section will indicate the steps taken by the researcher to ensure ethical conduct was undertaken during the research process.

The purpose of the study was carefully explained to all the women golfers who were interested in the study at the respective golf clubs, only then were participants recruited on a strictly voluntary basis. Participants were made aware of the confidential handling of the information and anonymity was ensured as no names would be linked to the data (Yegidis and Weinbach, 1996:34). The researcher then explained to participants that all information that was gathered from the focus group discussions would be valuable to the study and will reflect their personal perceptions pertaining to the current golfing apparel available to women golfing consumers. The researcher also added that the information would assist in the design and marketing of the current women's golfing ranges. Participants were recruited only on a voluntary basis.

The researcher's contact details and email address appeared on the formal invitations that were sent out and participants were in a position to make contact if the need did arise. Participants were constantly made aware as to the nature of the study and the researcher made sure that no deception took place. Each participant signed a consent form indicating they understood the purpose and conditions of the study. The researcher then proceeded to follow the ethical conditions set out in the study and all raw data remained confidential and no transgressions occurred.

Participants were made aware of the fact that all communication during the duration of the discussions was to be tape recorded prior to the focus group session. The researcher also added that the tape recording was only used to capture the data more precisely than any hand written notes that were to be made by the moderator.

Participants were given the reassurance that the information that was to be tape recorded was strictly for research purposes and was to stay confidential. The researcher made field notes during and after the interviewing session so that the most pertinent aspects of each question were captured. The researcher did not make use of an assistant as the focus groups were a manageable size.

4.12 SUMMARY

This chapter discussed the qualitative approach used to explore the perceptions of women's golfing apparel qualities and the influence on the purchase decision. A phenomenological research approach was used in this perceptual study to explore and understand human experiences of participants regarding the perceptions of apparel quality for women's golfing apparel. The study explored physical, behavioural and extrinsic apparel qualities for women's golfing apparel and examined intrinsic, functional and aesthetic apparel qualities. Intrinsic textile qualities such as moisture management, ultraviolet protection and eco-friendly qualities were also explored to understand the participant's thoughts, feelings and experiences regarding these qualities found in women's golfing apparel and how perceptions influenced their purchase decisions.

To achieve the objectives set out in the study a multi-method approach was applied whereby the researcher used different data collection instruments to collect data. In this regard focus group discussions, a design card sort and a sentence completion exercise was used as each instrument addressed specific objectives set out in the study. A convenient sampling strategy was implemented whereby the researcher recruited women golfers from the Woodhill and Silverlakes Golf Clubs for the focus group interviews which provided a suitable data collection environment. On completion of data collection two different data analysis procedures were followed due to different data instruments applied in the study of women's golfing apparel qualities. A qualitative data analysis for the verbal data was applied and a quantitative data analysis was applied to the design card sort data. The triangulation of methods was used in the data collection stage to identify if any new data emerged

from the findings on the perceptual exploration of women's golfing apparel qualities and the influence on the purchase decision.

By following a qualitative research paradigm the objectives set out in the study on exploring the perceptions of participants regarding women's golfing apparel qualities and their purchase decision were achieved as rich data was captured from the data instruments applied to the study.

CHAPTER 5
RESULTS OF THE EMPIRICAL STUDY

This chapter presents the results in accordance with the objectives set out in the study with the inclusion of figures and tables to assist with the interpretation of the results.

5.1 INTRODUCTION

Chapter 4 presented the research design and methodology used to address the objectives of the study on the perceptual exploration of apparel qualities of women's golfing apparel and the influence on the purchase decision. In this chapter findings are discussed in relation to the objectives of the empirical study. An exploratory research design was adopted as this approach allowed the researcher to understand the participants' thoughts, experiences and feelings around women's golfing apparel. This was followed by the use of qualitative data collection methods such as focus group interviews, design card sort and a sentence completion exercise which required various means of data analysis. The first part of this chapter looks at the qualitative analysis of results, interpretation of results and findings.

Firstly the findings of the qualitative data analysis, recaps each of the objectives set out for the study. Moreover, the findings aim to provide interpretations of the participants' perceptions on women's golfing apparel and their purchase decisions. Secondly the results are presented using a diagrammatic figure illustrating each theme followed by important categories that emerged from the results of the data. The researcher then interprets the results based on the theme and each of the categories that have emerged. To support and validate the study findings, a table is used to indicate the participants' quotations on each category.

The second part of the discussion for this chapter is on the analysis of results, interpretation of results and findings of the quantitative data analysis that was applied to the design card sort data. The chapter then concludes by integrating the findings from the two approaches which blend together and complement one another to provide richer and deeper insight into the research questions, aims and objectives set out for the study.

5.2 EXPLORATION AND INTERPRETATION OF THE QUALITATIVE DATA

5.2.1 Background of the sample

The 25 respondents that participated in the focus group interviews were selected purposively on the grounds that they were active golf players at the Woodhill and Silverlakes Golf Clubs in Pretoria and would thus be motivated respondents, with a realistic and honest opinion regarding the study on women's golfing apparel. All participants were female and white with the exception of one participant who was coloured. The study did not look at demographics and no conclusive findings can be made on the age of participants.

5.2.2 Qualitative results addressing the focus groups data and the sentence completion exercise

The study aimed to explore female consumer perceptions of the physical qualities of golfing apparel in terms of 1) intrinsic qualities such as a) moisture management, b) sun protection, c) eco-friendly textiles as well as 2) extrinsic apparel qualities in terms of a) design and b) fit. The first part of the focus group interviews pertained to explore each of the textile qualities that form objective one of the study. To achieve this, participants were asked to express their understanding of moisture management which was the first intrinsic textile quality they had to discuss in relation

to women's golfing apparel. The findings from the focus group interviews are presented below in Figure 5.1.

5.2.2.1 Findings on the participants' understanding of moisture management

The findings in Figure 5.1 indicate that the participant's understanding of moisture management properties was based on a theme of sensory awareness. The theme consisted of four sensory awareness categories, namely, the ability to read, see, hear and a general awareness of information pertaining to moisture management properties found in some women's golfing apparel.

Theme 1: Sensory awareness

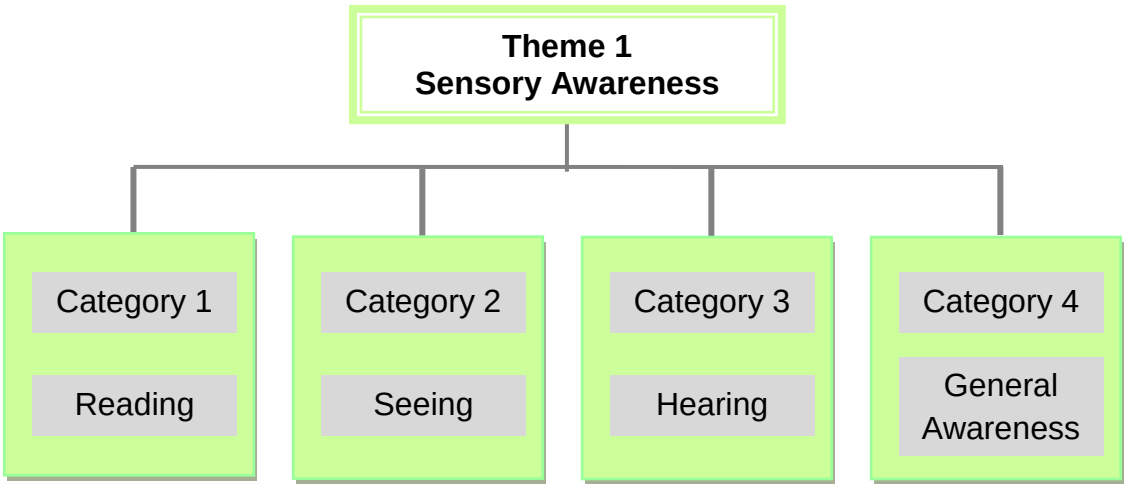


Figure 5.1 Sensory awareness of moisture management properties

From Figure 5.1 it is evident that participants' understanding through reading about the information mainly came from magazines they consulted as suggested in this quote in Table 5.1, "*I read about it in magazines*". On the other hand some participants had seen information concerning moisture management on branded sports clothing advertising the information as pointed out in this quote, "*I have seen*

this property in most branded sports clothing". The findings also indicate that few participants had heard of moisture management "*I have heard of moisture management properties*". This also resulted in an awareness of moisture management qualities in women's golfing apparel as suggested in the following quote "*I am aware of this property*". Karnes (1991:41) supports the views of participants from the study that consumer's awareness on the value of apparel products is influenced mainly by processing information such as garment labels, brand names and national advertising. Although few responses were obtained from the categories (reading, seeing and hearing), it is evident that a sensory awareness does occur among participants when viewing moisture management properties found in women's golfing apparel.

Table 5.1 Sensory awareness of moisture management properties

Categories	Quotes
Reading	" I read about it in magazines"
Seeing	"I have seen this property in most branded sports clothing"
Hearing	"I have heard of moisture management properties"
General Awareness	"I am aware of this property"
	"I am aware that there is moisture management properties"
	"I am aware that it is a popular feature to have in women's golfing apparel"

Theme 2: Functional qualities

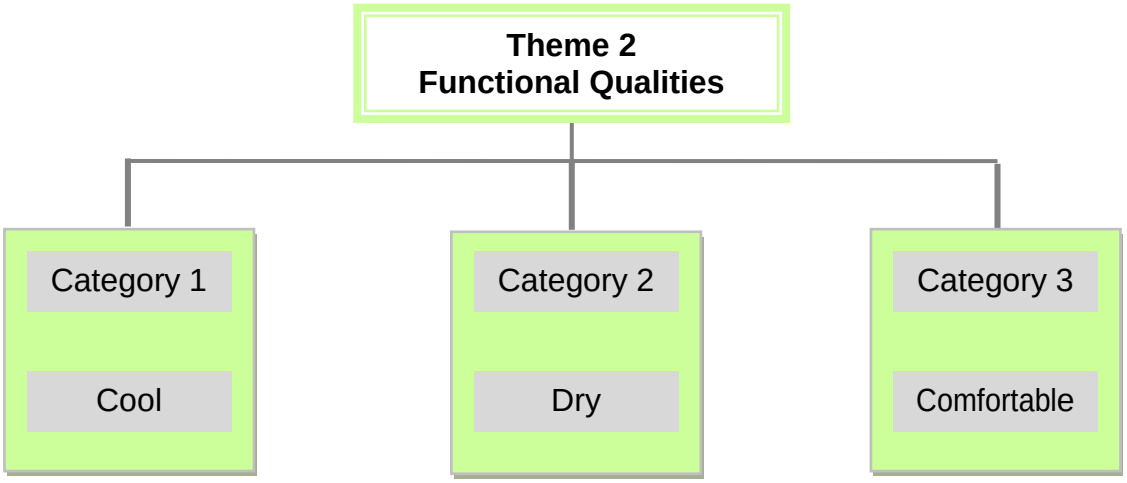


Figure 5.2 Consumer understanding of moisture management properties

The second theme derived from the analysis of the question on consumer understanding of moisture management, was a theme that depicted the functional qualities of moisture management. This theme is derived from three categories pertaining to moisture management functional characteristics such as allowing the garment to be cool, dry and comfortable which was reported by some participants. Participants showed their understanding of what moisture management properties meant to them as suggested in the following quotes in Table 5.2, "*popular with most sportwear because it is supposed to keep you cool during a game*" and provides a level of staying cool and dry during sporting activities such as golf. On the other hand some participants understood moisture management properties enable the absorption of perspiration as indicated in this quote, "*popular with sportwear because it supposed to keep you dry*".

In Table 5.2 participants associated moisture management properties with comfort which was an important quality to consider when purchasing women's golfing apparel as suggested by this quote in Table 5.2, "*I always look for comfort first*". Similar responses regarding comfort achieved through moisture management properties came through from other participants as seen in the quotes below in Table 5.2. In fact Hines and Swinker (2001) suggested that understanding apparel product

qualities will influence how consumers evaluate the overall quality of the apparel product. Therefore, it was important to explore participants' perceptions and understanding of moisture qualities textile qualities found in women's golfing apparel.

Table 5.2 Functional properties of moisture management

Categories	Quotes
Cool	"popular with most sportswear because it is supposed to keep you cool during a game".
	"I am aware of its cooling properties"
	"it has properties that have cooling properties"
	"to keep you cool"
Dry	"popular with sportswear because it supposed to keep you dry"
	"clothing that is supposed to keep you dry"
	"it has properties that have drying qualities"
Comfortable	"excellent that we have textiles available mainly for sport that prevents you from being sweaty and uncomfortable"
	"I always look for comfort first"
	"breathes easily so you are really comfortable"
	"I look for a shirt that looks fresh even after a game of golf"

Theme 3: Stylistic limitations

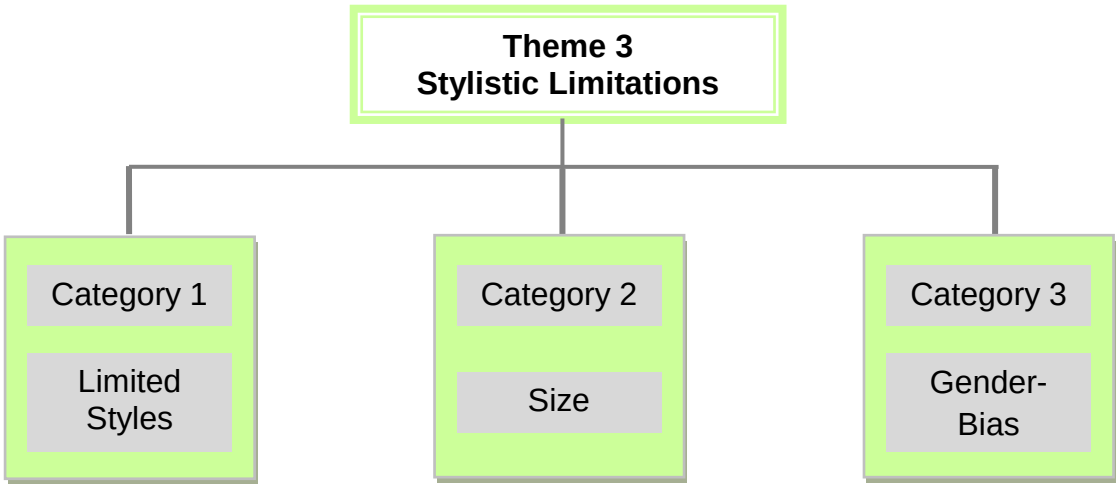


Figure 5.3 Stylistic limitations of women's golfing apparel

The third theme that emerged from the data on moisture management qualities reflected a theme relating to limited stylistic options available in the South African golfing apparel retail market. The theme stylistic limitations related to three categories namely, limited styles, size and gender-bias which reflect the perceptions of participants relating to their personal shopping experiences regarding women's golfing apparel.

In general participants were concerned about the limited stylistic options they were faced with when shopping for golfing apparel like a golf shirt. This was suggested in the following quotes in Table 5.3, "*not a lot of variety offered; limited styles available; don't always find the correct style that suits my taste*". In this instance the participants' frustrations with the limited stylistic options may be related to the fact that the female athlete may use clothing and appearance to carry out her aesthetic role as well as her style preferences and the ready to wear sport apparel available may not meet her sporting requirements (Dickson and Pollock, 2000). In fact one participant highlighted her concerns about not finding sizes in suitable styles which catered to the needs of larger size women golfers at local retail stores, as suggested in the following quote in Table 5.3, "*there is not a lot available to the bigger size women*". Mason *et al.* (2008) added that size and fit of women's apparel must reflect

the true picture of the target market which in this case would apply to the target market for women's golfing apparel as well.

The third category is gender-bias as some participants expressed their concerns by pointing out that male golfers had more style options to choose from and this was indicated by the following quotes, "*more men's shirts with a moisture management property as compared to women's ranges; very masculine style*".

Table 5.3 Stylistic limitations

Categories	Quotes
Limited styles	" not a lot of variety offered"
	"limited styles available"
	"don't always find the correct style that suits my taste"
	"limited styles and I am left with very few options"
Size	"there is not a lot available to the bigger size women"
Gender–bias	"more men's shirts with a moisture management property as compared to women's ranges"
	"moisture management is not found in all women's golf clothing and more in men's golf shirts"

Theme 4: Knowledge acquisition

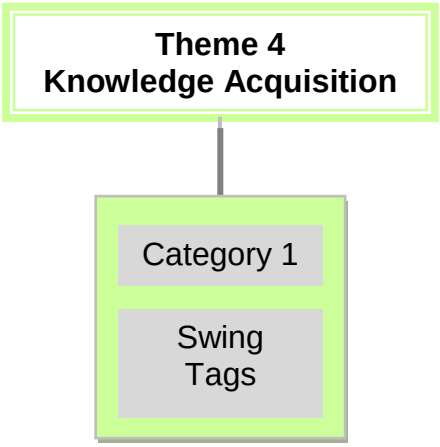


Figure 5.4 Knowledge acquisitions on moisture management properties

The fourth theme is an indication that participants generated an understanding and acquired knowledge of what moisture management was through reading of swing tag information attached to the golfing apparel product. Knowledge acquisition consisted of only one category namely swing tags. Few participants reported that they read swing tags specifically to acquire more knowledge about the performance qualities of the apparel, as well as the benefits of moisture management qualities as suggested in the following quotes in Table 5.4, "*I look at the swing tag information to get more information about performance features the garment may have; reading the swing tag helps me to understand the benefits of moisture management properties; I am curious about what the garment can deliver so I read the garment label*". Shin (2000) is of the opinion that swing tag label information found on garments is an important tool that can be used as a means to deliver critical information to the consumer for example in the case of women's golfing apparel it would be performance textiles like moisture management.

Table 5.4 Knowledge acquisition of moisture management properties

Category	Assessing the apparel product
Swing tags	"I look at the swing tag information to get more information about performance features the garment may have"
	"reading the swing tag helps me to understand the benefits of moisture management properties"
	"I am curious about what the garment can deliver so I read the garment label"

Theme 5: Price and cost sensitivity

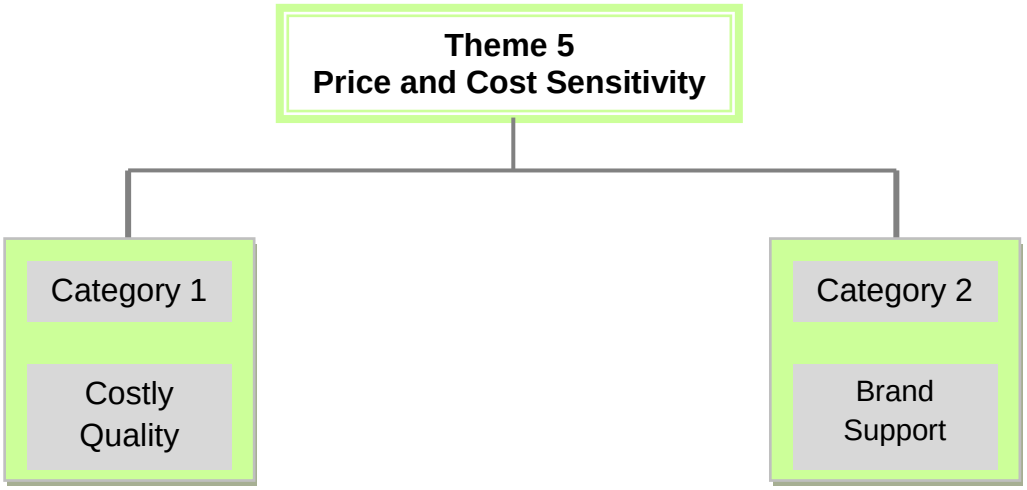


Figure 5.5 Price and cost sensitivity regarding moisture management apparel

When exploring the understanding of moisture management it was apparent that some participants connected price and cost sensitivity to women's golfing apparel containing moisture management qualities. Price and cost sensitivity forms the fifth and final theme that emerged from the data. In this theme two categories act as purchasing considerations for moisture management golfing apparel, namely costly quality and brand support. Participants reported that they found moisture management golfing apparel to be more expensive than the ordinary golf shirt and highlighted that it was not affordable to the average women golfer. Some participants

pointed out that a branded golf shirt cost more than an ordinary golf shirt as suggested in the following quotes in Table 5.5, "*Adidas did cost a bit because I paid R600 for it; purchasing a Puma shirt with moisture management properties was more expensive*". Price was not only representative of the apparel cost of moisture management properties in golfing apparel but it was also considered an extrinsic quality that helped consumers to judge the quality of apparel products and brands in order to determine the anticipated level of satisfaction (Brijball, 2003). Furthermore, Heisey (1990) is of the opinion that consumers believe if they paid a higher price for a particular brand, the quality of the apparel product would offer better quality and would satisfy the needs of the consumer as indicated in the quote in Table 5.5 which reflects a category of brand support as indicated in Table5.5, "*purchasing a Puma shirt with moisture management properties was more expensive."*

Table 5.5 Impact of price and cost sensitivity on consumers purchase decisions

Category	Quotes
Costly quality	"moisture management shirts were more expensive"
	"price was far more expensive than a normal golf shirt"
	"not affordable to the average person like myself"
Brand support	"Adidas did cost a bit because I paid R600 for it"
	"purchasing a Puma shirt with moisture management properties was more expensive".

5.2.2.2 Findings on participants' understanding of ultraviolet protection qualities

As part of the **Objective 1** the second question raised to participants was to discuss their understanding of what ultraviolet protection in women's golfing apparel was.

Four different themes emerged which depicted their understanding of ultraviolet protection qualities. Each theme is indicated using a diagrammatic representation, a discussion and followed by a table highlighting quotes from participants.

The first theme to have emerged from the data was a theme of consumer necessity. This suggested that consumers acknowledged the risks to sun exposure and the need to be protected from the sun by an ultraviolet protection quality and understood the importance of having ultraviolet golfing apparel. The theme is formed out of three different categories namely importance; risks to exposure and need recognition.

Theme 6: Consumer necessity

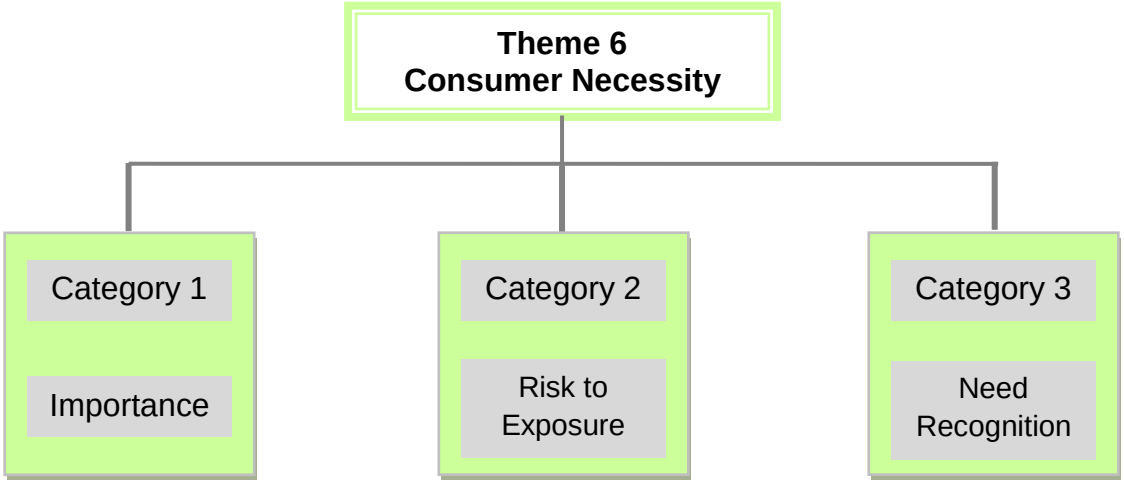


Figure 5.6 Consumer necessity of ultraviolet protection qualities

The first category derived from the theme was a category of importance. The response from most participants is indicated in the following quotes which are reflected in Table 5.6, "*ultraviolet protection is important; important property to have in women's golfing apparel; sun protection is important to me personally; sun protection is important*", which suggests that consumers acknowledge the benefits of wearing golfing apparel that contain ultraviolet protective qualities.

The second category represented the risks associated with harmful sun exposure experienced by women golfers, as these quotes suggest "*sun does burn your skin;*

the risk of being exposed to a lot of sun on the golf course; summer sun is harsh in Pretoria; I burn easily because of my fair complexion". In this regard it is clear that participants have identified the risks associated with exposure to harmful ultraviolet radiation which may lead to sun burn and skin cancer due to continuous sun exposure. In this case it was suggested by participants that exposure to ultraviolet radiation may be due to long hours on the golf course.

The third category, need recognition indicated a demand for ultraviolet textile qualities used in the design and manufacture of women's golfing apparel by participants as such qualities would provide extra protection resulting in the confidence as well as peace of mind and can add more value to the golf shirt. This was expressed in the following quotes shown in Table 5.6, "*the need to be protected from sun burn; the need for prevention against sun exposure; gives us extra protection and confidence*". These responses were supported by Eadie and MacAskill (2007) who indicated that women demonstrated a higher level of understanding regarding the risks associated with ultraviolet radiation like developing skin cancer and this has resulted in a need to adopt protective measures such as the use of ultraviolet protective clothing.

Table 5.6 Consumer necessity of ultraviolet properties for women's golfing apparel

Categories	Quotes
Importance	"ultraviolet protection is important"
	"important property to have in women's golfing apparel"
	"sun protection is important to me personally"
	"sun protection is important"
	"UV protection in clothing is important"
	"sun protection is very important"

Categories	Quotes
	“excellent for the high temperatures”
	“UV protection in women’s golfing apparel, very important”
	“sun protection is very important especially in South Africa”
	“UV protection in sports apparel is essential”
Risk to exposure	“sun does burn your skin”
	“the risk of being exposed to a lot of sun on the golf course”
	“summer sun is harsh in Pretoria”
	“I burn easily because of my fair complexion”
	“does increase the chance of skin cancer”
	“outdoor sport like golf does put us at risk”
Need recognition	“the need to be protected from sun burn”
	“the need for prevention against sun exposure”
	“gives the us extra protection and confidence”
	“adds more value to the golf shirt”
	“sun protection will add quality to women’s golfing clothing”
	“peace of mind to know that I am wearing sun protection”
	“will be beneficial because I burn easily in the sun”
	“sun protective clothing is beneficial to women golfers”

Theme 7: Knowledge acquisition

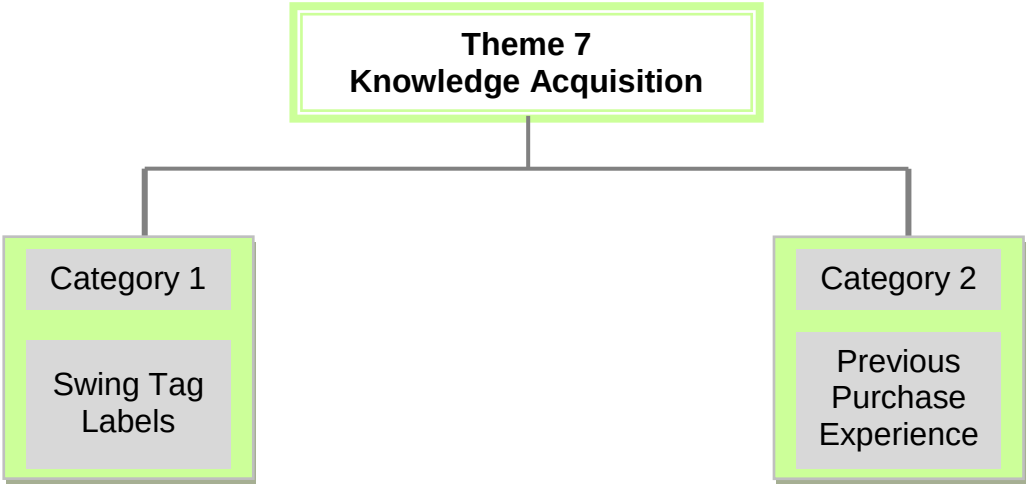


Figure 5.7 Knowledge acquisitions of ultraviolet protection qualities

The second theme that emerged from the data on consumer understanding of ultraviolet protection qualities is knowledge generation. In this instance knowledge is generated from different sources which are firstly through swing tag labels and secondly through previous purchase experiences. These two categories form the information sources participants used to understand what ultraviolet protection qualities meant. Swing tag labels are especially helpful to the golfing apparel consumer as they help the consumer understand what a product containing ultraviolet protective qualities would do (how it will behave). It would also clarify what factor of ultraviolet protection the apparel product contains in other words, how well it might protect the consumer and indicate the qualities of ultraviolet protection the consumer does not know about. This came through in the following quotes indicated in Table 5.7 such as, "*I read swing tags to understand what the fabric does; the swing tag tells me what sun protection factor is provided*". These statements are supported by Shin (2000) who is of the opinion that swing tag labels are easily noticed and provide valuable information like fabric content and care instructions. Knowledge is further generated by participants who had previously purchased golfing apparel which carried an ultraviolet protection quality and, therefore, were familiar with apparel that contain ultraviolet protective qualities as suggested in the

following quotes in Table 5.7, "*I bought a uv shirt from the Pro Shop; I did buy a UV shirt when I was in Thailand"*.

Table 5.7 Knowledge acquisition of ultraviolet protection qualities

Categories	Quotes
Swing Tag Labels	" I read swing tags to understand what the fabric does "
	"the swing tag tells me what sun protection factor is provided"
	"gives me more information about UV qualities that I may not know"
Previous Purchase Experience	"I bought a UV golf shirt from the Pro Shop"
	"I did buy a UV shirt when I was in Thailand"
	" I have purchased a golf shirt with a sun protection factor"

Theme 8: Stylistic concerns

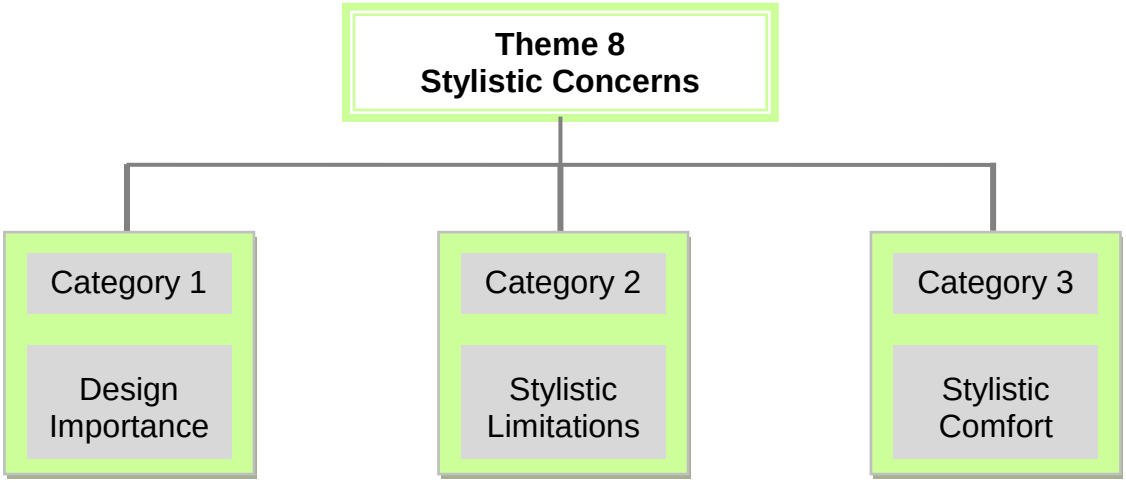


Figure 5.8 Stylistic concerns regarding ultraviolet golfing apparel

Participants were probed as to how they evaluated other apparel qualities if the garment they were interested in had an ultraviolet protection factor. The findings suggested stylistic concerns as a theme which came through strongly. Stylistic concerns revealed several aspects relating to the current style and design of women's golfing apparel. Three different categories emerged from the data.

The first category highlighted showed participants were concerned with the importance of design qualities in women's golfing apparel and this is suggested in the following statements in Table 5.8, "*the design is very important to me; the style and design of the garment is my first priority; if sun protection is added to a good design*". Kadolph (1998:7) stated that design and style of the apparel is an important intrinsic quality that influences the physical comfort of the garment on which consumers may base their purchase decisions.

The second category showed that a large group of participants had concerns about stylistic limitations regarding current golfing apparel available at retail stores which had ultraviolet qualities. This is reflected statements such as "*currently very limited in terms of design and styles with sun protection; not a lot of variety in terms of designs with UV; limited choices when looking for a specific style and length*". North *et al.* (2003) indicated that designers and retailers needed to understand what apparel qualities consumers valued most when making purchase decisions and had to plan their merchandise mix more efficiently.

The third category was stylistic comfort. Some participants thought that comfort was definitely what determined their purchase decision when shopping for golfing apparel with ultraviolet protection qualities and is indicated in the following statements, "*comfort first; would purchase a golf shirt if it were comfortable; would buy if it were comfortable and made me feel good*". According to De Klerk and Tselepsis (2007), the female consumer has specific functional and aesthetic expectations with regards to the fit and comfort of her clothing and argued that fit and comfort are of the most important attributes found in clothing.

Table 5.8 Stylistic concerns of women's golfing apparel with regards to ultraviolet qualities

Categories	Quotes
Design importance	"the design is very important to me"
	"style and design of the garment is my first priority"
	"if sun protection is added to a good design"
	"want the shirt to look impressive"
	"design must be trendy and sporty"
	"protection and good styling"
	"the design of the golf shirt must be appealing and have a collar"
	"if the shirt had a collar"
Stylistic limitations	"currently very limited in terms of design and styles with sun protection"
	"not a variety in terms of designs with uv"
	"limited choices when looking for a specific style and length"
	"not very feminine styles available"
	"designs with sun protection is not trendy"
	"most times not really what I want to buy because of the style"
	"not happy with the clothing at golf shops"
	"don't easily find the garment I want to use for golf"
	"difficult to find suitable styles for my age (50)"
	"limited styles"
	"limited styles at Pro Shop"

Categories	Quotes
	“don’t like what is available in the uv range”
	“limited styles that impact on my choices”
	“don’t buy what’s available”
Stylistic comfort	“comfort first”
	“would purchase a golf shirt if it were comfortable”
	“would buy if it were comfortable and made me feel good”

Theme 9: Price and cost sensitivity

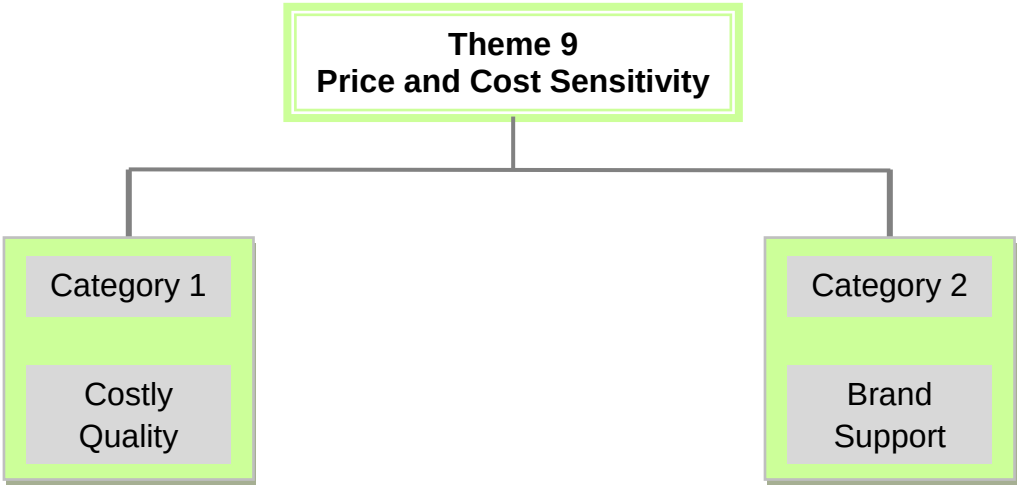


Figure 5.9 Price and cost sensitivity of ultraviolet protective golfing apparel

The third theme that was identified from the data was price and cost sensitivity when exploring participants understanding of ultraviolet protective qualities. The price and cost sensitivity theme is related to two categories that suggest cost quality and brand support which impacts significantly on participants’ understanding of ultraviolet protection. A few participants raised their concerns about an ultraviolet golf shirt

being far more expensive to purchase as opposed to a basic golf shirt as suggested in the following statements in Table 5.9, "*golf shirts with sun protection are more expensive; costs more than a normal golf shirt; more expensive*". Karnes (1991) is of the opinion that consumers often indicated their preference for an apparel product through the price they were willing to pay for instance in this case it would be towards a particular sports brand like Puma or Nike. This is further reflected in the following quotes as some participants bought branded golfing apparel which came with ultraviolet protection qualities which are supported by the following statements in Table 5.9, "*I have bought an Adidas shirt that came with sun protection; I have a Puma shirt that has UV qualities*".

Table 5.9 Influence of price and cost sensitivity on consumers purchase decision

Categories	Quotes
Costly Quality	"golf shirts with sun protection is more expensive"
	"costs more than a normal golf shirt"
	"more expensive"
Brand Support	"I have bought an Adidas shirt that came with sun protection"
	" I have a Puma shirt that has UV qualities"
	"prefer a brand name like Nike that comes with sun protection"
	"will pay more for a branded golf shirt"

5.2.2.3 Findings on eco-friendly textile qualities

As part of the focus group discussions, the last question in Objective 1 was to determine the participants' understanding of women's golfing apparel that had eco-friendly textile qualities.

Theme 10: Consumer awareness

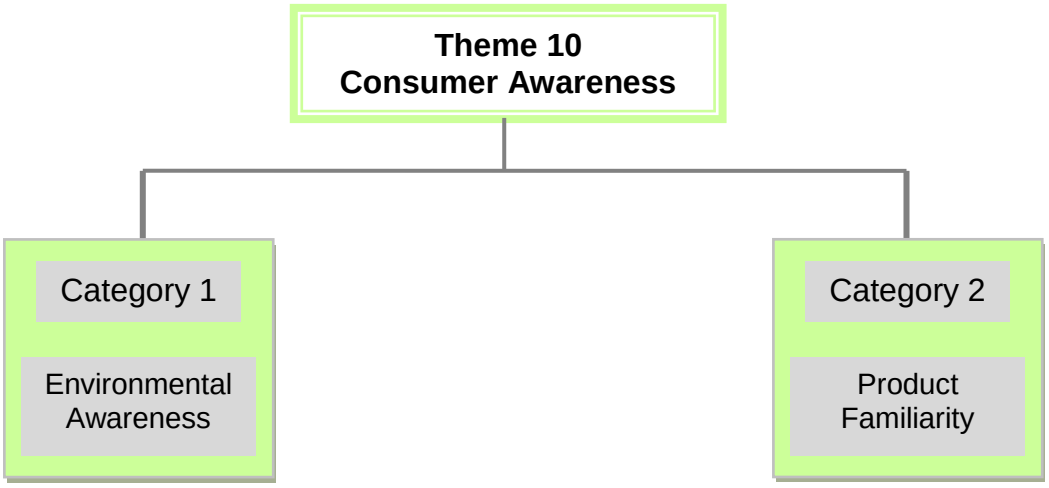


Figure 5.10 Consumer understanding of eco-friendly qualities

The first theme that emerged from the understanding of eco-friendly qualities was a consumer awareness of the term eco-friendly. The consumer awareness theme was created by two categories, an environmental awareness and product familiarity. Participants' discussions about environmental awareness was mainly focused on their concerns for the environment and the growing need for eco-friendly products such as apparel as these quotes suggest, "*there is much awareness concerning eco-friendly products, going green is a new lifestyle trend, more environmental awareness is seen in eco-clothing; as a consumer you are more aware of environmental issues; I support green initiatives*". Similarly Wong and Taylor (2001) have researched the market potential of environmental clothing products in Hong Kong and found a steady increase in awareness among young adults and educated

consumers who realised that their purchase decision impacted on the environment. This consumer awareness is further established by the next category product familiarity where a small number of women consumers had previously purchased or were gifted an eco-friendly apparel product, "*gifted a shirt that had eco-friendly textile qualities; I bought an eco-friendly golf shirt from Woolworths*". Kim and Damhorst (1998) point out that the ecologically conscious consumer is familiar with the positive effect their purchase decision would have on the environment. Both of these categories have assisted the consumer to understand better the concept of eco-friendly qualities or what they assume it might entail as various general environmental messages are projected to the consumer on a daily basis. These messages may in fact be unrelated to apparel but might be applied to apparel by the consumer as well. This is particularly evident in quotes 1-4 provided in Table 5.10.

Table 5.10 Consumer awareness of eco-friendly qualities

Categories	Quotes
Environmental Awareness	"there is so much awareness concerning eco-friendly products"
	"going green is a new lifestyle trend"
	"more environmental awareness is seen in eco- clothing"
	"as a consumer you are more aware of environmental issues "
	"I support green initiatives"
Product Familiarity	"gifted a shirt that has eco-friendly textile qualities"
	"I bought an eco-friendly shirt from Woolworths"

Theme 11: Consumer openness

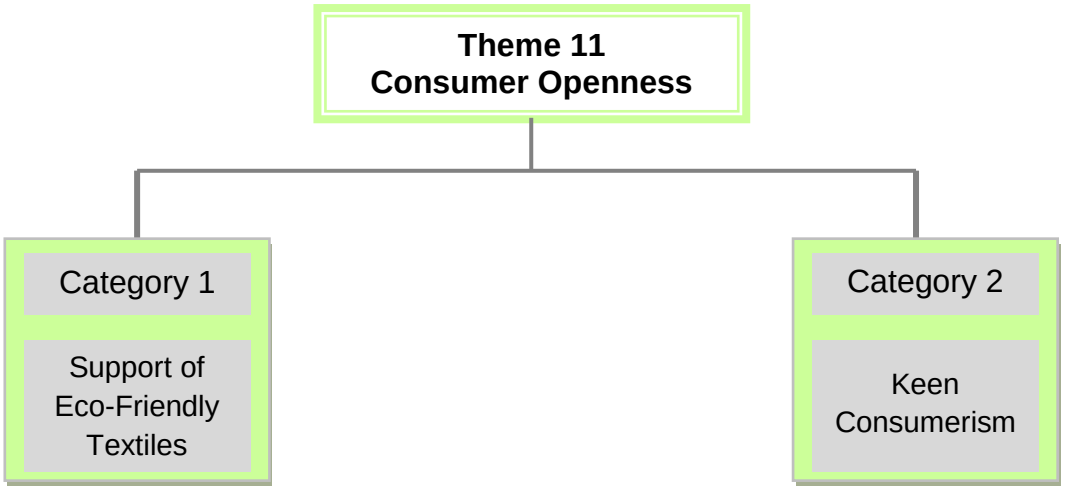


Figure 5.11 Consumer openness of eco- friendly qualities

The second theme which emerged from the data on eco-friendly textiles was a theme that expressed the participants' general consumer openness towards the inclusion of eco-friendly qualities in women's golfing apparel. The first category that was identified under this theme is support of eco-friendly textiles as most participants were in favour of eco-friendly processes towards ensuring a better environment. This is suggested in the following statement in Table 5.11, "*it's good practice for our environment*". In support of these findings Burke (2011:57) pointed out that an increasing number of spinners and manufacturers are providing eco-friendly textiles which involve sourcing materials from organic sources, devising production methods which save energy, using eco-friendly dyes, finishing and laundering. The second category that emerged is keen consumerism and more participants were open to purchasing eco-friendly golf apparel as suggested in the following statement in Table 5.11,"*I would consider buying an eco-friendly golf shirt if it were available*". In support of participants views consumer interest in naturally-made fabrics and eco-friendly apparel consumption has grown significantly (Roarty, 1997; Kim and Damhorst, 1998).

Table 5.11 Consumer openness of eco-friendly qualities for women's golfing apparel

Categories	Quotes
Support of Eco-Friendly Textiles	"it's good practice for our environment"
	"because of environmental concerns like global warming it's nice to have eco-sportswear"
	" the natural processes involved is good for the environment"
	"organic cotton can be used"
	"natural fibres used in the manufacturing process"
	"if there's no harm to the environment"
Keen Consumerism	"I would consider buying an eco-friendly golf shirt if it were available"
	"would be keen on buying an eco-friendly golf shirt"
	" I like the idea of eco-friendly golfing apparel"
	" I would buy , if it was available"
	"yes, I think eco-friendly golfing apparel will be excellent to have"

Theme 12: Intrinsic quality requirements

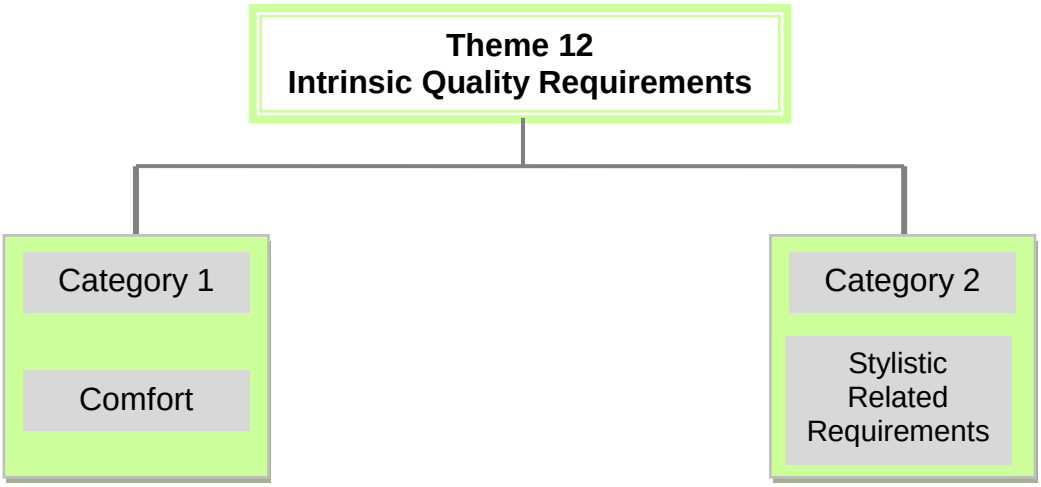


Figure 5.12 Intrinsic quality requirements for eco-friendly qualities

A third theme emerged from the participants' understanding of eco-friendly apparel qualities which points to the participants inclusion of certain intrinsic qualities as part of their understanding of eco-friendly apparel qualities. The intrinsic qualities theme is made up of two categories. The first category that emerged from the data is comfort as some participants were of the opinion that the golf shirt had to be comfortable while playing golf as suggested in the following statements in Table 5. 12, "*the golf shirt must be comfortable; comfortable on the skin; comfort and fit is very important; if the garment is comfortable and also fits well*". In addition Bye and La Bat (2005) are of the opinion that fit is an important quality used by consumers to evaluate the apparel product as this influences the comfort and quality of the apparel product. The second category is stylistic related requirements as the majority of participants were concerned with very specific style and design requirements for women's golf shirts. This is suggested in the following statements "if *the design was appealing, yes I would buy an eco-friendly golf shirt; if the designs came with an interesting collar and pocket detail; contemporary styles; I would look for a collar and interesting detail that appeared on the back of the shirt; eco-friendly fabrics plus good design qualities*". This indicates that participants would consider eco-friendly golfing apparel if it met their style and design requirements. Design elements such

as silhouette, colour, line and texture of the fabric together with proportion, balance and rhythm are important qualities fashion designers needed to keep in mind when designing a visually well presented garment (Burke, 2011).

Table 5.12 Intrinsic qualities for eco-friendly golfing apparel

Categories	Quotes
Comfort	" the golf shirt must be comfortable"
	"comfortable on the skin"
	"comfort and fit is very important"
	"if the garment is comfortable and also fits well"
Stylistic related requirements	"if the design was appealing, yes I would buy an eco-friendly golf shirt"
	"if the designs came with an interesting collar and pocket detail"
	"contemporary styles"
	"I would look for a collar and interesting detail that appeared on the back of the shirt"
	"eco-friendly fabrics plus good design"
	"must have excellent design qualities "
	"must have a collar"
	"designed for golf, like collar, opening and detail"

Theme 13: South African market situation

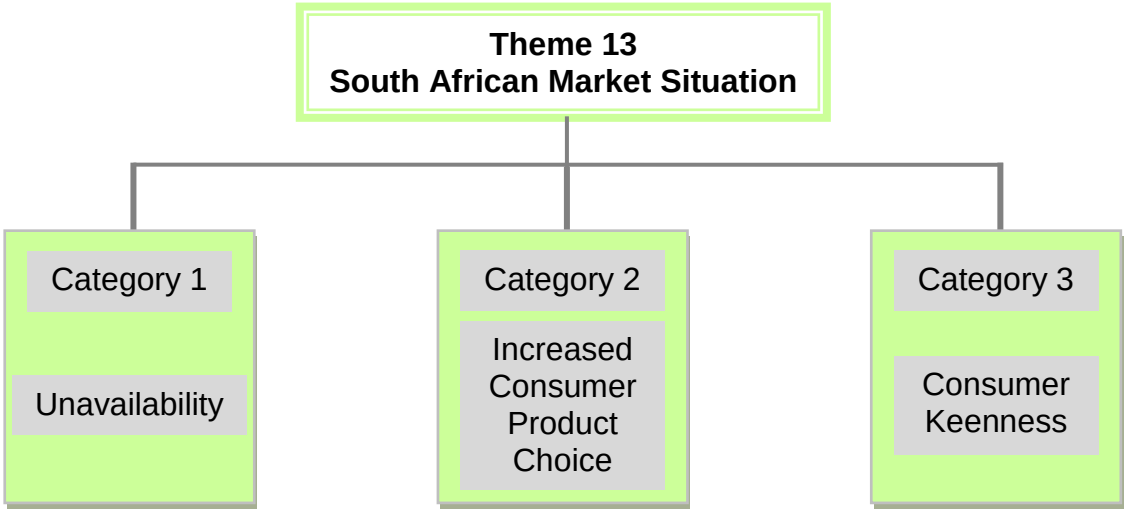


Figure 5.13 South African market situation regarding eco-friendly women's golfing apparel

A particular theme of interest emerged from the data on eco-friendly apparel qualities. The theme depicts the current South African market situation in relation to eco-friendly golfing apparel products. The South African apparel market is characterised by three category situations. Firstly a category emerged that expressed the lack of and unavailability of eco-friendly golfing apparel which explained what the consumer experiences are at present. Participants pointed out that eco-friendly golfing apparel for women was currently not available at any of the golf retail stores in Pretoria. This is suggested in the following quotes indicated in Table 5.13, "*it's a pity that we do not have eco-friendly golfing apparel; not readily available to us; you don't find eco-friendly clothing for women golfers; don't think that eco-friendly golf clothing is available*". This has been highlighted by Fotopoulos and Krystallis (2002) that the lack and supply of eco-friendly apparel products is of more concern than the lack of consumer demand.

The second category is increased consumer product choice. Some participants were of the opinion that if eco-friendly golfing products were available it would create a wider product choice from which the consumer could select the apparel product that best suited their needs as suggested in the following quotes, "*we will have more*

choices available to us; more options to select from; this will allow us more options to choose from".

The third category that emerged is consumer keenness. Most participants' were eager to purchase women's golfing apparel that contained eco-friendly textile qualities. This was suggested in the following quotes, "*for the serious eco-consumer this will be good; excellent quality to have; would buy; I would definitely consider buying; we should have eco-fabrics used in golf clothing; would be popular because of its comfort*". These responses from participants were supported by Atilgan (2007) who indicated that consumers are aware of environmental concerns and are responding favourably to environmental promotions.

Table 5.13 South African market situation on eco-friendly golfing apparel

Categories	Quotes
Unavailability	"it's a pity that we do not have eco-friendly golf clothing"
	"not readily available to us"
	"you don't find eco-friendly clothing for women golfers"
	"don't think that eco-friendly golf clothing is available"
	"not seen women's golfing apparel that has this property"
	"not available"
	"not seen any"
	"I have not seen any golf clothing that carries an eco-friendly label"
	"not available at the moment"
	"no, have not seen any"
Increased Consumer Product Choice	"we will have more choices available to us"
	"more options to select from"

Categories	Quotes
	“this will allow us to have more options to choose from”
Consumer Keenness	“for the serious eco-consumer this will be good”
	“excellent quality to have”
	“would buy”
	“I would definitely consider buying ”
	“we should have eco-fabrics used in golf clothing”
	“would be popular because of its comfort”

5.2.2.4 Findings on the consumer expectations of intrinsic apparel qualities

The purpose of **Objective 4** was to explore consumer expectations of physical and behavioural golfing apparel qualities and to determine if these expectations were met after the purchase of women’s golfing apparel. This objective was explored by asking participants the following question, “*Can you share with us some of the expectations you might have had when you saw that women’s golfing apparel you were interested in had some of the intrinsic product qualities*?” This question was further explored through means of the probing interviewing technique. The discussion to follow will again identify important themes that emerged from the data, categories and provide findings and interpretations of the data.

Theme 14: Consumer's expectation of moisture management

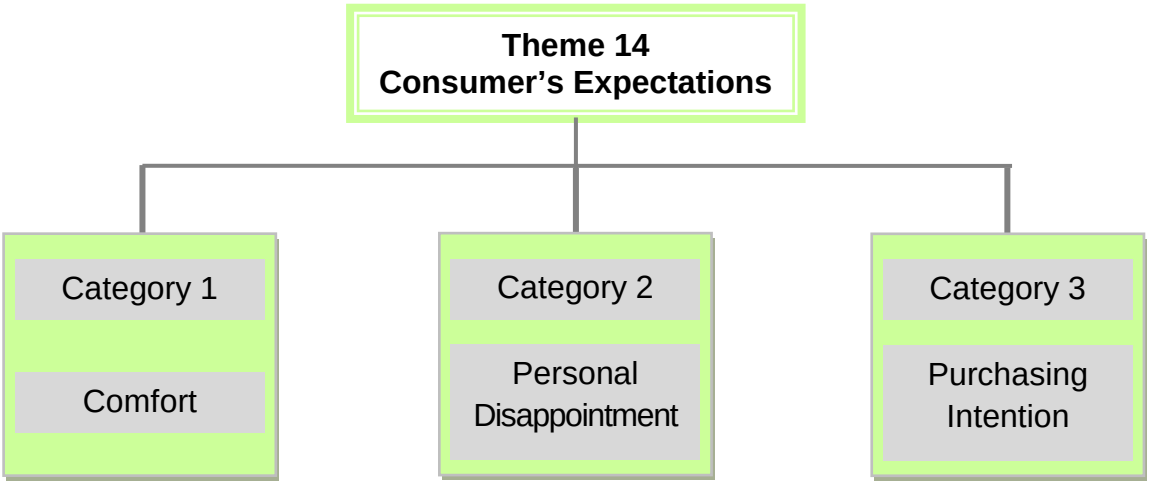


Figure 5.14 Consumer's expectation of moisture management qualities

The consumer expectation theme emerged and was supported by three categories which looked specifically at moisture management qualities found in women's golfing apparel. The first category was comfort associated with moisture management qualities for example for its drying and cooling properties. Some participants were aware of the functions associated with moisture management textiles as suggested in the following quotes in Table 5.14, "*the moisture management property will keep me comfortable; I would be kept dry and also comfortable while playing golf; cool, dry and comfortable, the fabric will keep me dry plus cool, expect the garment to deliver*". Kadolph (1998) stated that comfort in relation to moisture management properties is important in active sportwear as the textile qualities of the apparel affect the transfer of heat from the fabric to the skin. Similarly comfort describes how the textile interacts with the body.

The second category came through as personal disappointment because participants found that some golfing apparel containing moisture management qualities did not have certain qualities that women consumers looked for as suggested in the following quotes in Table 5.14, "*comes in limited styles; does not meet my requirements; very small range to choose from; does not cater for larger women; disappointed with current styles that are available; not suitable for me*". This is not the case in the United Kingdom as Sparks (2007) has pointed out, women's

sportwear has become more fashionable and although active wear is used to play sport, most of the clothing is now fashion orientated.

Some participants expressed their thoughts on what influenced them to purchase a moisture management golf shirt. Purchasing intention emerged as the third category which suggested the following statements in Table 5.14, "*I would buy the garment if the design was appealing; if the garment fitted well I would then buy; if the quality was good I would consider buying*". The principles of design that organise visual elements such as rhythm, proportion, balance and emphasis as described by Fiore and Kimle (1997) are important and apparel designers are needed to capture these design qualities effectively to meet consumers' expectations.

Table 5.14 Expectations of moisture management qualities

Categories	Quotes
Comfort	"the moisture management property will keep me comfortable"
	"I would be kept dry and also comfortable while playing golf"
	"cool, dry and comfortable"
	"the fabric will keep me dry plus cool"
	"would expect the garment to keep me cool"
	"expect the garment to deliver"
Personal Disappointment	"comes in limited styles"
	"does not meet my requirements"
	"very small range to choose from"
	"does not cater for larger women"
	"disappointed with the current styles that are available"
	"not suitable for me"

Categories	Quotes
Purchasing intention	"I would buy the garment if the design was appealing"
	"if the garment fitted well, I would then buy"
	"if the quality was good, I would consider buying"

Theme 15: Consumer expectations of ultraviolet qualities

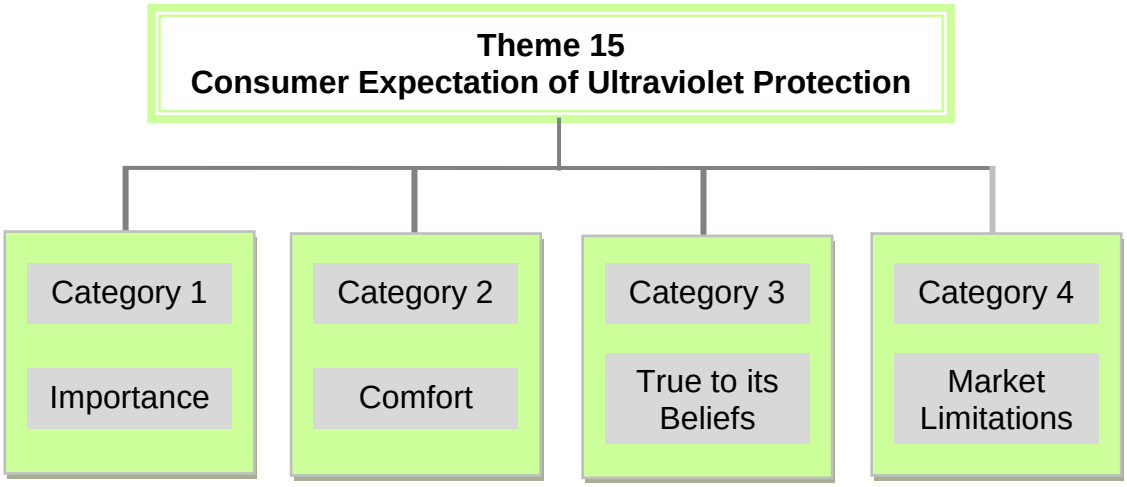


Figure 5.15 Consumer expectations of ultraviolet textiles qualities

The consumer expectations theme regarding ultraviolet protection is made up of four categories. The first category which emerged from the theme is importance of ultraviolet protection. Most participants' discussions were mainly focused on the need and importance of having ultraviolet protection in women's golfing apparel. This is due to concerns regarding global warming and the risks associated with overexposure to sun damage and skin cancer. Participants expected the ultraviolet protection textile qualities found in golfing apparel to provide them with protection from sun damage as suggested in the following quotes in Table 5.15, "*important to have due to climate change; as a lifestyle change this will be a safe practice; important because it provides protection from sun damage; for extra protection from sun damage and the risk of skin cancer*". In support of these findings Song and

Stone (2005) found that consumers understood the risks associated with exposure to ultraviolet radiation and this was also indicated by Gravel (1997) who had expressed that golfers are especially at risk of developing skin cancer due to continuous exposure and long hours in the sun. The second category indicated comfort as an important quality that participants considered when evaluating women's golfing apparel as the following quotation suggests, "*if comfort was guaranteed; comfort first*". In fact comfort is described as having physical and psychological factors and if the apparel product is uncomfortable this will adversely affect consumer satisfaction (Kadolph, 1998). The third category was true to its belief as some participants felt that the garment should deliver what it says it does. For example in this case provide effective sun protection while playing golf as indicated in these quotations "*was getting a garment that will perform; delivers effective sun protection*". In light of these responses the quality of apparel depends largely on how the apparel best serves the consumer in time of need and conforms to consumer standards (Garvin, 1987). The last category is market limitations whereby participants pointed out concerns over limited styles and designs that are currently available to them. This was a matter of great concern as it impacted negatively on their evaluation of the apparel product and their purchase decisions as suggested in the following quotations, "*comes in limited styles and colours; limited designs not suitable to my taste*". Market research in the United Kingdom has shown that active sportwear has evolved with the development of specialist fabrics as well as contemporary design qualities added to sportwear (Sparks, 2007)

Table 5.15 Consumer expectations of ultraviolet textiles qualities

Categories	Quotes
Importance	“important to have due to climate change, as a lifestyle change this will be a safe practice”
	“important because it provides protection from sun damage ”
	“for extra protection from sun damage and the risk of skin cancer”
	“due to long hours in the sun it is important to wear protective clothing”
Comfort	“if comfort was guaranteed”
	”comfort first”
True to its beliefs	“was getting a garment that will perform”
	“delivers effective sun protection”
Market limitations	“comes in limited styles and colours”
	“limited designs, not suitable to my taste”
	“not enough designs to choose from”
	“I don’t find what I am looking for”
	“the golf stores don’t cater for our needs”
	“the golf clothing available do’s not meet my requirements”

Theme 16: Consumer expectations of eco-friendly qualities

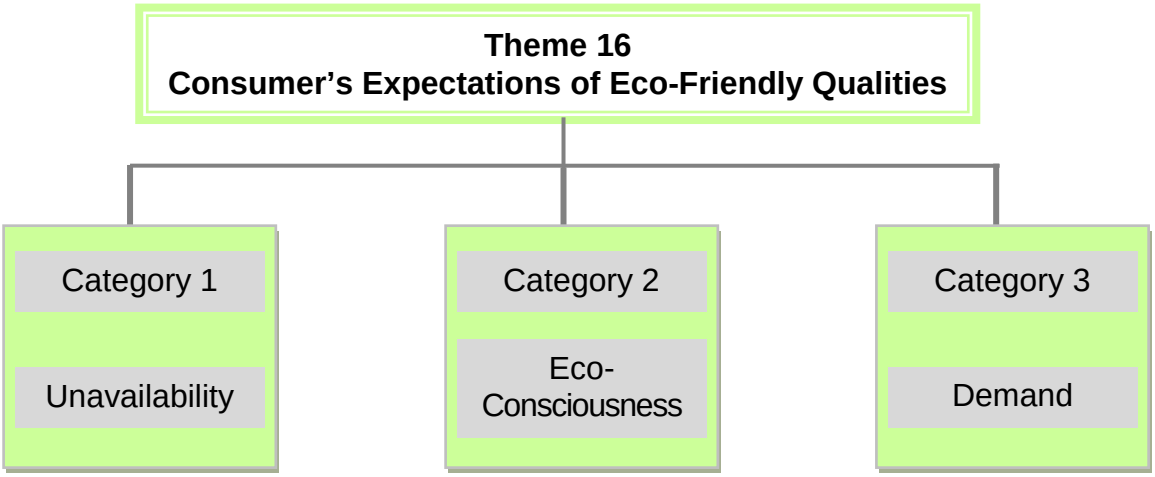


Figure 5.16 Consumer expectations of eco-friendly qualities

The consumer expectations theme is related to three categories that describe participants' experiences of eco-friendly textiles used for women's golfing apparel. The first category that emerged from the data is unavailability as most participants indicated their concerns over the unavailability of eco-friendly women's golfing apparel at local retail stores as suggested in the following statements in Table 5.16, "*not available in golf shops; not in current designs; sadly have not seen eco-golfing apparel; not available, not marketed at Pro Shop*". A similar market study done in Hong Kong showed that a growing number of consumers were not in a position to make eco-friendly apparel purchases due to retailers not supplying eco-friendly apparel to them (Wong and Taylor, 2001). The second category was identified as eco-consciousness as some participants were of the opinion that eco-friendly golfing apparel was a good idea as it will assist with environmental concerns that consumers currently faced and this was expressed in the following quotations, "*important to have in sportswear like golf; a nice idea to help create awareness*". Sports marketers needed to understand the change in consumer behaviour regarding ecological concerns and retailers needed to be in a position to satisfy consumer's needs regarding eco-friendly sport apparel (Kitchin, 2007:73). The third category was identified as demand and more participants were in favour of purchasing eco-friendly golfing apparel only if it met certain requirements which were indicated in the

following quotations, "*if the design I was attracted to had eco-friendly qualities; design together with eco-friendly textiles*". The results from this study did not support the findings of Wong and Taylor (2001) who in their consumer study found that design was not a major priority for eco-consumers but rather brand image, convenience and shop atmosphere which determined their clothing choice and purchase.

Table 5.16 Consumer expectations of eco-friendly qualities

Categories	Quotes
Unavailability	"not available in golf shops"
	"not in current designs"
	"sadly, have not seen eco-golfing apparel"
	"not available"
	"not marketed at Pro Shop"
Eco-consciousness	"important to have in sportswear like golf"
	"a nice idea to help create an awareness"
Demand	"if the design I was attracted to had eco-friendly qualities"
	"design together with eco- friendly textiles"
	"I would definitely consider as a purchase option"
	"yes, I would be more than happy to buy an eco-friendly golf shirt"
	"if it came in a variety of style options suitable for golf, I will buy"
	" I would buy"

5.2.2.5 Findings on the physical and behavioural qualities of women's golfing apparel

Objective 3 was used to determine whether the physical and behavioural apparel qualities also contribute towards golfing apparel purchases. The objective was explored through this question, "*how much do all the qualities golfing apparel have such as moisture management, design, fit and functional apparel qualities contribute towards the decision to purchase these golfing apparel that contain such qualities*?"

Theme 17: The influence of physical qualities on the purchase decision

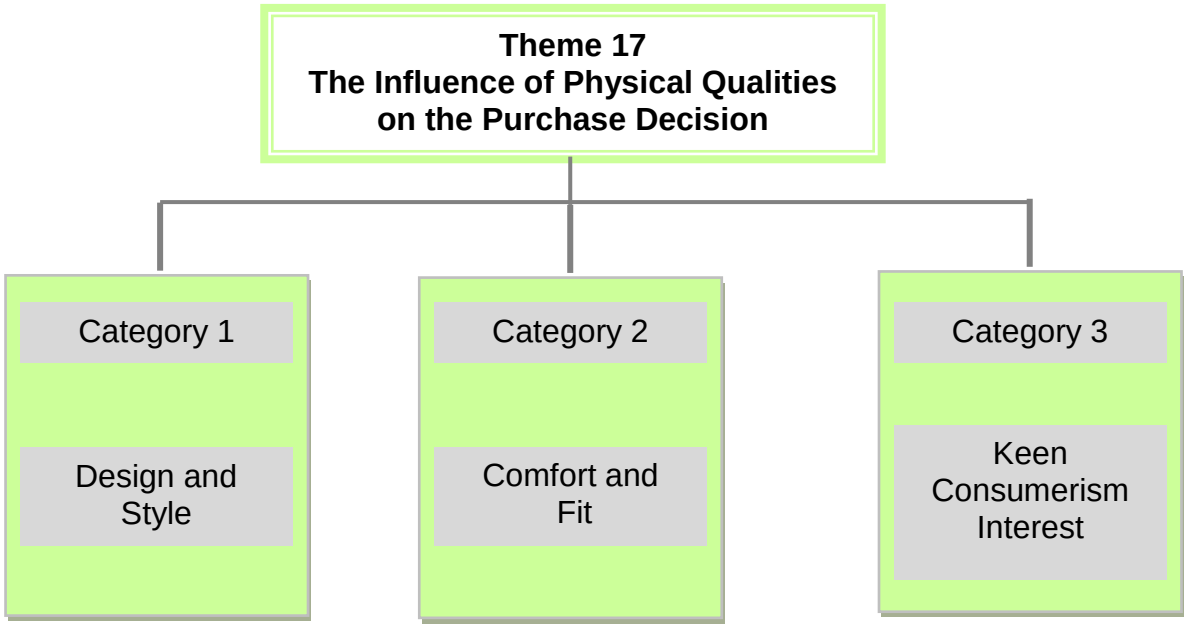


Figure 5.17 The influence of physical qualities on consumer purchase decisions

The theme which emerged from the data is the influence of physical qualities on the purchasing decision of women's golfing apparel. The theme consists of three categories which are described as strong indicators during the purchase decision. The first category that most participants identified is design and style and seen as significant to participants. The design and style qualities attract most participants to

evaluate the garment closely and also play a significant role in their purchase decisions as indicated in the following comments in Table 5.17, "*my first approach is the design; I generally go with the design first; definitely the way it is designed; look for design quality; my first reaction is the style of the design; the design and style is important*". Sparks (2007:383) indicated that a London based retail store, SweatyBetty identified a gap in the retail market for high end contemporary designed women's sportwear as most stores in London were not meeting women's needs regarding sportwear. The second category was comfort and fit that contributed largely to how most participants evaluated golfing apparel. Most participants based their purchase decisions on the comfort the garment provided and the apparel fit as suggested by the following comments, "*comfort definitely; more comfortable because if the shirt has a collar; must be comfortable to wear; it must fit well which will add to the comfort; important that its comfortable for long hours on the golf course*". In support of the participants' views Sparks (2007:383) indicated that women would purchase apparel that provided a feel good factor in terms of its comfort and fit qualities. The third category related to keen consumerism interest regarding textile qualities such as moisture management, ultraviolet protection and eco-friendly textiles. Some participants showed a keen interest in buying a golf shirt with moisture management qualities as suggested in these quotations in Table 5.17, "*for outdoor sport like golf moisture management is good to consider; I would consider moisture management; prefer moisture management as a good performance quality, definitely moisture management because of its cooling properties*". Other participants showed much interest towards ultraviolet protection textile qualities used in contemporary styles as indicated by the following quotations, "*sun protection if it came with a good design; if sun protection came in more styles and sizes; would buy a shirt with a sun protection factor if the style suited me; I burn easily so I would go with sun protection; definitely sun protection*". Discussions with participants also indicated that there was a growing interest to purchase eco-friendly golfing apparel as suggested in the following quotations, "*yes, I would buy an eco-friendly golf shirt; the comfort of eco-fabrics with good design*". From participants responses it was clear that participants were keen to purchase golfing apparel with textile qualities and it was equally important for retailers to understand consumer buying behaviour in order to communicate effectively to consumers in future (Du Preez, 2003).

Table 5.17 The influence of physical qualities on the consumer purchase decisions

Categories	Quotes
Design and Style	"my first approach is the design"
	"I generally go with the design first"
	"definitely the way it is designed"
	"look for design quality"
	"my first reaction is the style of the design"
	"the design and style is important"
	"style of design is my first priority"
Comfort and Fit	"comfort, definitely"
	"more comfortable if shirt has a collar"
	"must be comfortable to wear"
	"it must fit well which will add to the comfort"
	"important that its comfortable for long hours of golf"
	"if the design is comfortable for golf"
	"must fit well and endure long hours on the golf course"
	"comfort and fit first"
Keen Consumerism Interest - Moisture Management	"for outdoor sport like golf, moisture management is good to consider"
	"I would consider moisture management"
	"prefer moisture management as a good performance quality"
	"definitely moisture management because of its cooling properties"

Categories	Quotes
Keen Consumerism interest- Ultraviolet Textiles	"sun protection if it came with a good design"
	"if sun protection came in more styles and sizes"
	"would buy a shirt with a sun protection factor if the style suited me"
	"I burn easily so I would go with sun protection"
	"definitely sun protection"
Keen Consumerism interest- Eco-friendly Textiles	"Yes, I would buy an eco-friendly golf shirt"
	"the comfort of eco-fabrics with good design"
	"I would be keen on buying an eco-friendly golf shirt"
	"yes, I think it will be comfortable"

Theme 18: The influence of behavioural qualities on the consumer purchase decision

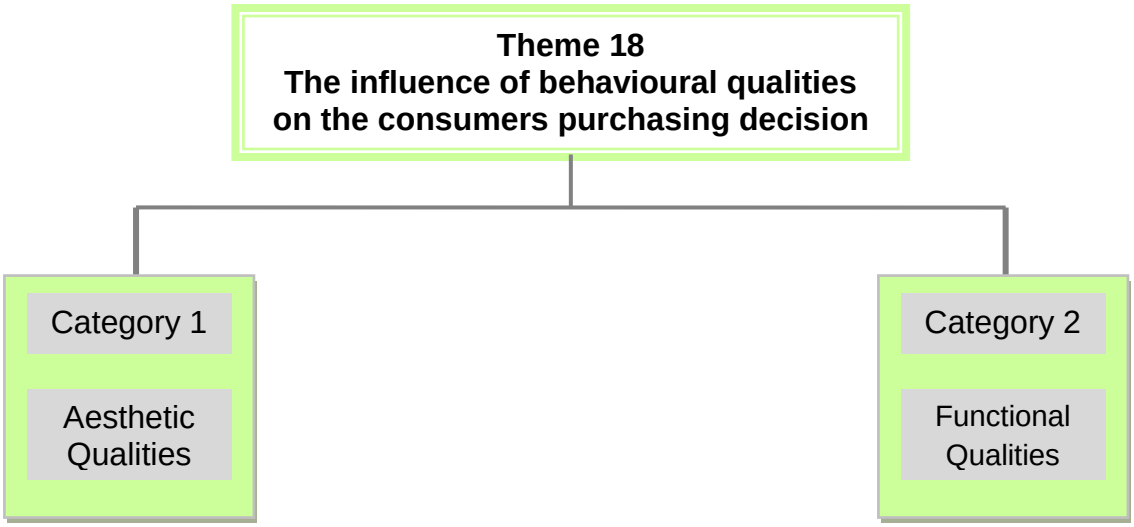


Figure 5.18 The influence of behavioural qualities on consumers purchase decisions

The theme which emerged from the data is the influence of behavioural qualities on the consumers' purchase decision. The theme consisted of two categories namely aesthetic qualities and functional qualities. Most participants indicated strongly that the garment needed to make them look and feel good when they played golf. The majority of the participants relied on aesthetic qualities on an emotional and cognitive level as it evoked certain feelings as suggested in the following quotations in Table 5.18, "*especially the aesthetic appearance; how it made me feel; the appearance of the garment when worn for long hours on the golf course*". Morganosky (1984) found that the aesthetic evaluation was the central evaluation around which other evaluations such as utility were made by apparel consumers. The second category, functional qualities, is how the apparel product performed while in use was another contributing factor to participants purchasing the garment and is indicated in the following quotations in Table 5.18, "*how the fabric reacts to my body; if it delivers in terms of durability and comfort; if the textile qualities perform during golf*". Fabric has been viewed as an important quality and for fabric to provide the desired fit by the apparel manufacturer it has to be selected with consideration for the consumer (Stamper *et al.* 1991).

Table 5.18 The influence of behavioural qualities on consumers purchase decisions

Categories	Quotes
Aesthetic qualities	"especially the aesthetic appearance"
	"how it made me feel"
	"the look and feel of the garment on my skin"
	"the appearance of the garment when worn for long hours on the golf course"
Functional Qualities	"how the fabric reacts to the body"
	"if it delivers in terms of durability and comfort "
	"if the textile qualities performs during golf"

Theme 19: General influence of apparel quality on the purchasing decision of golfing apparel

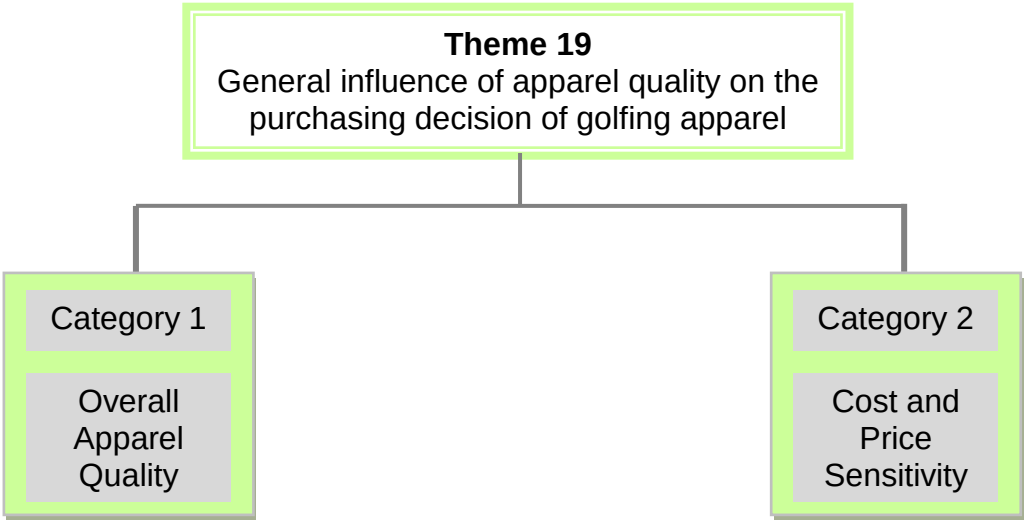


Figure 5.19 Influence of overall apparel quality, cost and price sensitivity on consumer purchase decisions

Two categories guide the purchase decision of women's golfing apparel which are overall apparel quality and cost and price sensitivity. The majority of participants evaluated the overall apparel quality of the apparel on which they later based their purchase decisions on. This included aspects such as good quality and appropriate fabrics from which the product is made as suggested in these quotations in Table 5.19, *"prefer a good quality garment; I look for clothing that will last longer; better quality; overall quality is what I look for like in the design, fabric choice; overall quality is important*". Expectations of quality and how it is viewed may vary as the more educated and sophisticated the consumer, the more specific their expectations of apparel quality (Stamper *et al.* 1991). Some participants judged the quality of golfing apparel by its extrinsic qualities such as price which influenced the decision to purchase as suggested in the following quotations in Table 5.19, *"will buy a brand name like Cutter and Buck and pay more; I use price to determine the quality of the garment; depending on the quality and the brand I would rather pay more for this; I will pay more for the quality*". Consumers' as Brijball (2003) pointed out rely on price

as a reflection of quality or when they see a brand name that they can identify with to determine their purchase decisions.

Table 5.19 The influence of overall apparel quality on consumer purchase decisions

Categories	Quotes
Overall Apparel Quality	"prefer a good quality garment"
	"I look for clothing that will last longer"
	"better quality"
	"overall quality is what I look for like in the design, fabric choice"
	"overall quality is important"
	"if I am satisfied with the quality, yes"
	"the quality of the garment does impact my purchase decision"
Cost and Price Sensitivity	"will buy a brand name like Cutter and Buck and pay more"
	"I use price to determine the quality of the garment"
	"depending on the brand and quality, I would rather pay more for this""
	"I will pay more for the quality"

The second part of **Objective 3** was set to determine whether the expectations that the participants had were actually met after purchasing golfing apparel. A sentence completion exercise was performed by the focus group participants that asked them to complete the following, "*In general the expectations I had of women's golfing apparel that I have bought has....*". Three themes emerged from the data which will be discussed next.

Theme 20: Consumer expectations

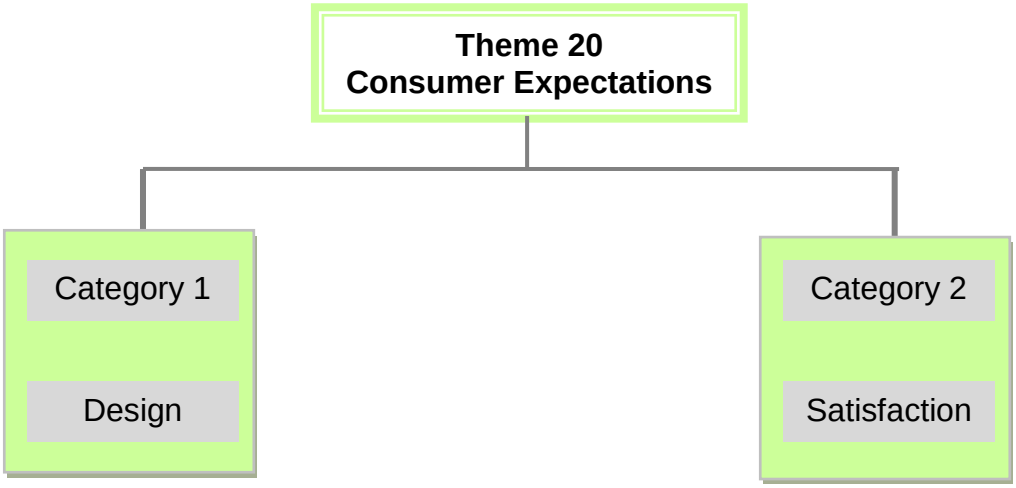


Figure 5.20 Consumers expectations regarding previous purchase experience

The consumer expectations theme consisted of two categories, firstly design and secondly satisfaction regarding women's golfing apparel. Most participants expressed their disappointment with the golfing apparel they had purchased with regard to the design quality limitations. Some of the responses were reflected in the following quotations in Table 5.20, "*designs were basic, very similar to what I purchased previously; the design was similar to what others wore; boring in terms of the quality of design"*. In support of participants' views Rogers and Lutz' (1990) study on quality indicators used by retail buyers in the purchase of women's sportwear showed that design was ranked as the most important by consumers followed by garment construction, brand name and price. However, a few participants pointed out what they were satisfied with the golf shirt they purchased because it had a collar as part of the design and this was indicated the following quotations, "*it had a collar which worked for me, a collar is required for golf, looked good on*".

Table 5.20 Consumer expectations of golfing apparel they had previously purchased

Categories	Quotes
Design	“designs were basic”
	“very similar to what I purchased previously”
	“very basic”
	“boxy, very straight forward design”
	“basic, lacked design quality”
	“the design was too similar to what others wore”
	“boring in terms of the quality of design”
	“outdated, have not worn some of the golf shirts I bought”
	“tired of the design”
Satisfaction	“it had a collar which worked for me”
	“a collar is required for golf”
	“looked good on”
	“the collar and styling of the shirt”
	“my favourite golf shirt because of the detail on the collar and pocket”

Theme 21: Experience with functional textiles

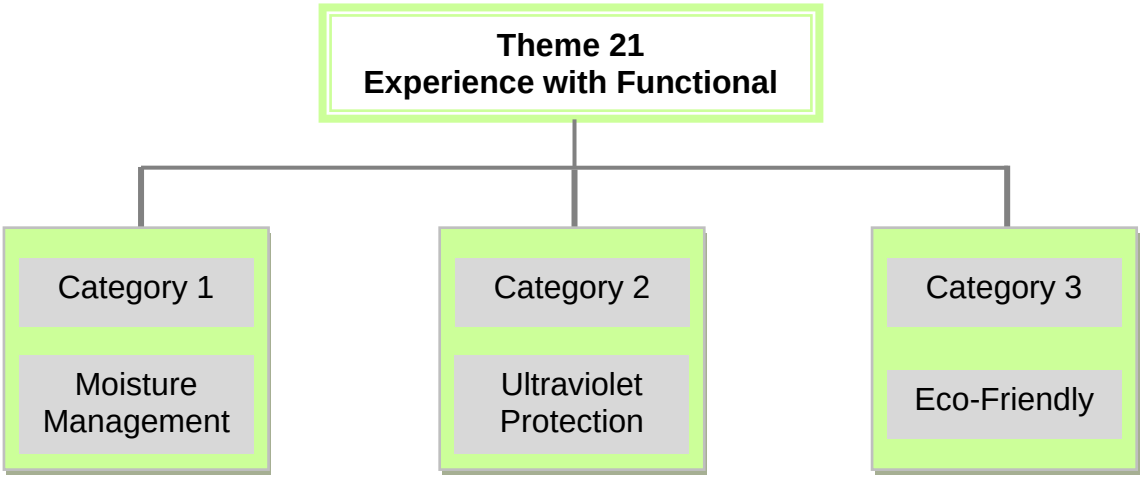


Figure 5.21 Experience with functional textiles

Experience with functional textiles theme is derived from three categories relating to textile qualities such as moisture management, ultraviolet protection and eco-friendly textiles at the post purchase expectation stage. Female golfers who purchased apparel which had moisture management qualities were satisfied that the garment delivered the expected sensory feelings and expectations as suggested in the following quotations, "*comfortable, because of its cool, drying qualities; lived up to its expectation and kept me dry; the fabric was very effective for golf; it does perform and dries up perspiration really fast*".

Discussions with participants who had purchased golfing apparel with ultraviolet protection qualities were satisfied with the idea that that they were protected from harmful radiation. This was mainly because golfers are especially at risk and participants understood the benefits of wearing apparel with ultraviolet protection properties as indicated in these quotations, "*peace of mind knowing that I had a garment on that had sun protection; more quality; effective for golf, needed because I am out in the sun for long hours; added protection from sun damage*". The last category is eco-friendly which saw a small percentage of participants who had actually experienced wearing an eco-friendly garment as indicated in these quotations, "*was an ordinary eco-friendly t-shirt which was very comfortable; was soft and rather comfortable on*".

Table 5.21 Consumers expectations regarding functional textiles at post purchase

Categories	Quotes
Moisture Management	"comfortable, because of its cool, drying qualities"
	"lived up to its expectation and kept me dry"
	"the fabric is very effective for golf"
	"it does perform and dries up perspiration really fast"
	"effective because it keeps me dry and confident"
	"it really absorbs and wicks out moisture"
	"its lightweight and feels really soft"
	"was excellent for golf"
Ultraviolet Protection	"peace of mind knowing that I had a garment on that had sun protection"
	"more quality"
	"effective for golf, because I am out in the sun for long hours"
	"added protection from sun damage"
	"I liked the sun protection factor"
	"most suitable for outdoor sport"
Eco-friendly	"was an ordinary eco-friendly t-shirt which was very comfortable"
	"was soft and rather comfortable on"
	"from an eco-perspective I liked wearing it"
	"was comfortable"
	"enjoyed wearing it because it was natural and very comfortable"

Theme 22: Post-purchase expectations

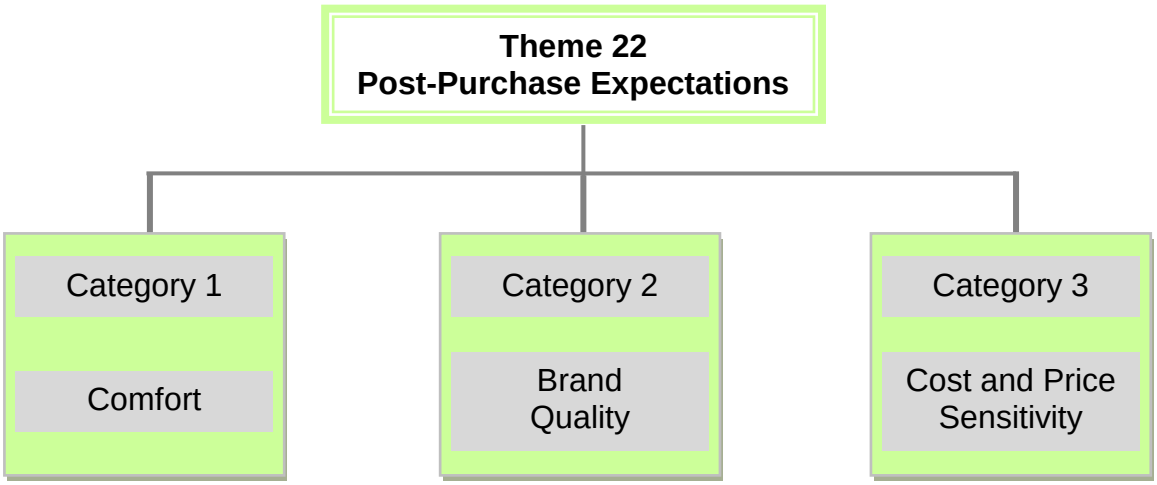


Figure 5.22 Post-purchase expectations

Three categories were derived from the theme post purchase expectations. Comfort was the first category which came through strongly from the responses by participants indicating their expectations of how the garment would perform and the reasons for purchasing the golfing apparel. This was suggested in the following quotations, *"I bought the garment because it fitted well and looked good on me; was very comfortable to wear and had a nice fit; bought the golf shirt mainly because it was comfortable; comfort was definitely what I considered when I bought the golf shirt*". Comfort is often associated with the feel of the fabric on the skin and the way the garment fits especially for active sportwear. More flexibility in the fabric is needed for easy movement (Kadolph, 1998:346). The second category brand quality reflected participants' expectations and perceptions of how the garment would perform due to them purchasing a branded golf shirt. This was suggested in the following quotations, "*it came with moisture management and sun protection which meant better quality; better fabric, better fit and better quality, high performance fabrics used in Nike meant better quality*. Brassington and Pettitt (1997) have stated that the higher the price and prestige image of the apparel product the lower the price sensitivity. The third category was cost and price sensitivity which was considered to be an indication of the kind of apparel quality the garment would

provide especially if it was a branded golf shirt as suggested in these quotations, "*the branded shirt cost me more; paid more for the Adidas shirt because of the fabric quality*".

Table 5.22 Consumers expectations of women's golfing apparel at post purchase stage

Categories	Quotes
Comfort	"I bought the garment because it fitted well and looked good on me"
	"was very comfortable to wear and had a nice fit"
	"bought the golf shirt mainly because it was comfortable"
	"comfort is definitely what I considered when I bought the golf shirt"
	"looked good on because it fitted well and was very comfortable"
	"definitely comfort"
	"the comfort and fit"
Brand Quality	"it came with moisture and sun protection, which meant better quality"
	"better fabric, better fit and better quality"
	"high performance fabrics used in Nike meant better quality"
	"ensures that I am getting more in terms of the fabric and design quality"
	"I have peace of mind knowing that the garment will deliver"
Cost and Price Sensitivity	"the branded shirt cost me more"
	"paid more for the Adidas shirt because of the fabric quality"

To answer the research question implied in this objective the analysis strategy indicated that cluster analysis and non-metric multi-dimensional scaling be performed on the golf shirt designs data. According to the analysis strategy, a similarity matrix calculated from the raw sorting data served as input data for the cluster and NMDS analysis. The raw data collected is presented in Table 5.23 on pg 152.

5.3 THE DESIGN CARD SORT

5.3.1 Quantitative data analysis and interpretation of results

To review, the objective of using the design card sort was to explore participants' perceptions regarding both physical and behavioural apparel qualities found in women's golf shirt designs. The twenty golf shirt designs included apparel qualities such as design, collar details, pockets, varied sleeve lengths, moisture management, ultraviolet protection and eco-friendly textile qualities. Participants were requested to sort the design cards according to their preferences in piles and were later asked to explain each of their design card sorts.

The table below represents the raw data from the design card sorting task. Each row of the table indicated how each respondent sorted the golf shirt designs (columns of the table) into groups. For example respondent 1 grouped designs 1- 4, 6, 9, 12, 14, and 20 into a group, labelled '1', and designs 8 and 11 in a group labelled '4'.

Table 5.23 Representation of data from the design card sort

Respondents/ Sorters	Women's Golf Shirt Design Cards (variables)																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1	1	1	1	2	1	2	4	1	3	4	1	3	1	3	3	3	2	3	1
2	2	2	1	2	2	1	1	1	1	2	1	1	1	1	2	2	2	2	2	1
3	1	2	1	2	1	1	2	1	1	2	1	2	1	1	2	2	1	2	2	1
4	3	3	1	3	2	1	2	1	1	2	1	1	1	2	3	2	2	2	2	1
5	4	4	2	4	2	2	3	1	2	4	1	2	2	3	4	3	3	2	3	1
6	1	2	1	2	1	1	1	1	1	2	1	2	1	1	2	2	2	1	2	1
7	2	2	1	2	1	2	1	1	1	1	1	1	1	2	2	2	2	2	2	1
8	3	3	1	3	2	2	2	1	1	2	2	1	1	1	3	3	3	2	2	1
9	1	1	1	2	2	1	2	1	1	2	2	1	1	1	1	2	2	2	2	1
10	1	3	1	3	2	1	2	1	1	2	2	2	1	1	1	1	2	3	1	1
11	4	4	2	4	3	2	1	1	2	3	2	1	2	1	4	3	3	3	3	1
12	1	3	1	2	2	1	2	1	1	2	2	2	1	1	3	2	1	2	1	1
13	1	1	1	2	2	1	2	1	1	2	2	2	1	2	2	2	2	2	3	2
14	3	3	1	3	3	1	2	1	2	3	2	2	1	1	3	2	2	2	2	1
15	2	2	1	2	2	1	1	1	1	2	2	2	1	1	2	2	2	2	2	1
16	3	3	1	3	2	1	2	1	2	2	3	2	1	1	2	3	2	3	3	1
17	3	3	1	3	2	1	2	1	2	2	2	2	2	1	2	2	2	2	2	1
18	1	1	1	2	1	1	1	1	1	2	1	2	1	1	2	2	2	2	2	1
19	1	3	1	3	2	1	2	1	1	2	1	2	1	1	3	2	2	2	2	1
20	1	2	1	2	2	1	2	1	1	2	2	1	1	2	2	2	2	2	1	1
21	2	2	1	2	2	1	1	1	1	2	1	1	1	2	2	2	2	2	2	1
22	1	2	1	2	1	1	1	1	1	2	1	1	1	1	2	1	2	2	1	1
23	2	3	1	3	2	1	1	1	1	2	1	1	1	1	2	2	3	3	2	1
24	2	2	1	2	1	1	1	1	1	2	1	1	1	1	2	2	2	2	1	1
25	2	3	1	3	2	1	2	1	1	2	2	2	1	1	3	2	2	2	2	1

5.3.2 Calculation of the similarity matrix

The 20x20 similarity matrix presented in Table 5.24 was calculated from the raw data by firstly calculating 25 individual 20x20 binary co-occurrence matrices in which a '1' in the appropriate cell indicated the co-occurrence of any two designs for a particular sorter '0' the non-occurrence of the particular event. The 25 matrices were then

combined to form the overall similarity matrix as discussed in detail in Chapter 4 Section 4.9.2.

Table 5.24 Calculation of the similarity matrix

Variables (Golf Shirt Designs)	Variables (Women's Golf Shirt Designs)																			
	25	16	11	13	10	12	4	10	11	8	8	6	10	11	13	11	9	8	11	10
	16	25	4	21	6	5	3	3	4	10	4	5	3	6	17	10	10	11	7	3
	11	4	25	1	7	23	9	22	22	1	12	12	23	18	2	2	2	2	5	22
	13	21	1	25	8	2	5	0	1	14	6	7	0	5	18	14	13	15	9	2
	10	6	7	8	25	7	17	6	9	18	15	12	8	9	9	14	14	16	13	7
	12	5	23	2	7	25	9	20	20	1	12	10	21	18	3	3	3	4	7	20
	4	3	9	5	17	9	25	10	12	13	17	16	10	12	5	12	11	13	11	11
	10	3	22	0	6	20	10	25	19	1	13	11	21	18	2	2	2	1	5	23
	11	4	22	1	9	20	12	19	25	3	14	15	22	15	4	4	5	4	7	19
	8	10	1	14	18	1	13	1	3	25	10	12	3	4	16	18	18	17	15	2
	8	4	12	6	15	12	17	13	14	10	25	14	13	10	4	10	9	11	9	13
	6	5	12	7	12	10	16	11	15	12	14	25	12	9	8	11	10	10	11	13
	10	3	23	0	8	21	10	21	22	3	13	12	25	16	4	4	4	3	7	20
	11	6	18	5	9	18	12	18	15	4	10	9	16	25	6	8	8	6	8	20
	13	17	2	18	9	3	5	2	4	16	4	8	4	6	25	15	14	11	11	3
	11	10	2	14	14	3	12	2	4	18	10	11	4	8	15	25	19	18	20	3
	9	10	2	13	14	3	11	2	5	18	9	10	4	8	14	19	25	17	16	3
	8	11	2	15	16	4	13	1	4	17	11	10	3	6	11	18	17	25	15	2
	11	7	5	9	13	7	11	5	7	15	9	11	7	8	11	20	16	15	25	5
	10	3	22	2	7	20	11	23	19	2	13	13	20	20	3	3	3	2	5	25

5.3.3 Cluster analysis results and interpretation

Results of the final cluster analysis, as discussed previously in Chapter 4, Section 4.5 is presented in Table 5.23 and Table 5.24 indicates which golf shirt designs when compared pair-wise, 'grouped together most closely'. The minimum distances indicated in the table act as criterion for the pair-wise clustering. Figure 5.23, a tree diagram, derived from Table 5.23 indicates the relationship in terms of minimum distances between the pair-wise clusters and the three clusters. The fourth cluster is a single golf shirt design that is distinct from the other classifications that were eventually identified as groups (CL4, CL7 and CL10) in the analysis.

This agrees with the groups used in the multidimensional scaling in the next section, Section 5.3.5. The clustering can also be derived from the configuration matrix in the multidimensional scaling analysis, as indicated in colour in Table 5.27.

Table 5.25 Cluster analysis results for the picture sorting task

Cluster analysis history						Description of clusters		
NCL	Clusters Joined		Freq	Min Dist	Tie		Shirt Designs	Cluster name
19	OB8	OB20	2	5.2915		Cluster 1		
18	OB3	OB6	2	6.4807		1	OB8	CL7
17	OB9	OB13	2	6.7823		2	OB20	CL7
16	CL18	CL17	4	6.9282		3	OB3	CL7
15	CL16	CL19	6	7		4	OB6	CL7
14	OB16	OB17	2	9.9499		5	OB9	CL7
13	OB10	CL14	3	12.61		6	OB13	CL7
12	OB2	OB4	2	12.884		7	OB14	CL7
11	CL13	OB18	4	12.923		Cluster 2		
10	CL12	OB15	3	13.379		8	OB16	CL4
9	CL11	OB19	5	13.638		9	OB17	CL4
8	OB7	OB11	2	15.1		10	OB10	CL4
7	CL15	OB14	7	16.248		11	OB18	CL4
6	CL8	OB12	3	16.31		12	OB19	CL4
5	OB5	CL6	4	18.193		13	OB7	CL4

Cluster analysis history						Description of clusters		
NCL	Clusters Joined	Freq	Min Dist	Tie		Shirt Designs	Cluster name	
4	CL5	CL9	9	20.809		14	OB11	CL4
3	CL10	CL4	12	22.539		15	OB12	CL4
2	OB1	CL3	13	25.02		16	OB5	CL4
1	CL2	CL7	20	27.875		Cluster 3		
An 'OB'-prefix indicates a shirt design, and a 'CL'-prefix denotes a cluster						17	OB2	CL10
						18	OB4	CL10
						19	OB15	CL10
						Cluster 4		
						20	OB1	OB1
Root-Mean-Square Total-Sample Standard Deviation = 6.734221								

Four distinct clusters, labelled (CL7, CL4, CL10 and OB1) were identified in the clustering process. The clustering history according to the minimum distance principle is graphically displayed in the dendogram presented in Figure 5.23, which results in the identification of the various clusters. The first cluster, labelled CL7, includes shirt designs 3 ,6, 8, 9,13 and 14, the second cluster labelled CL4, includes shirt designs 5, 7, 10, -12, 16, -19 the third cluster, labelled CL10 includes shirt designs 2, 4, 15, and shirt design 1 was identified as distinct from the other clusters, thus a cluster in its own.

The underlying structure of the clusters and the reasons why the shirt designs group into the different clusters is because of the property levels-combinations as explained in Chapter 4. Section 4.9.2.3 is further explained in Section 5.3.5.1 on the NMDS analysis results.

5.3.4 Dendogram of cluster analysis and interpretation

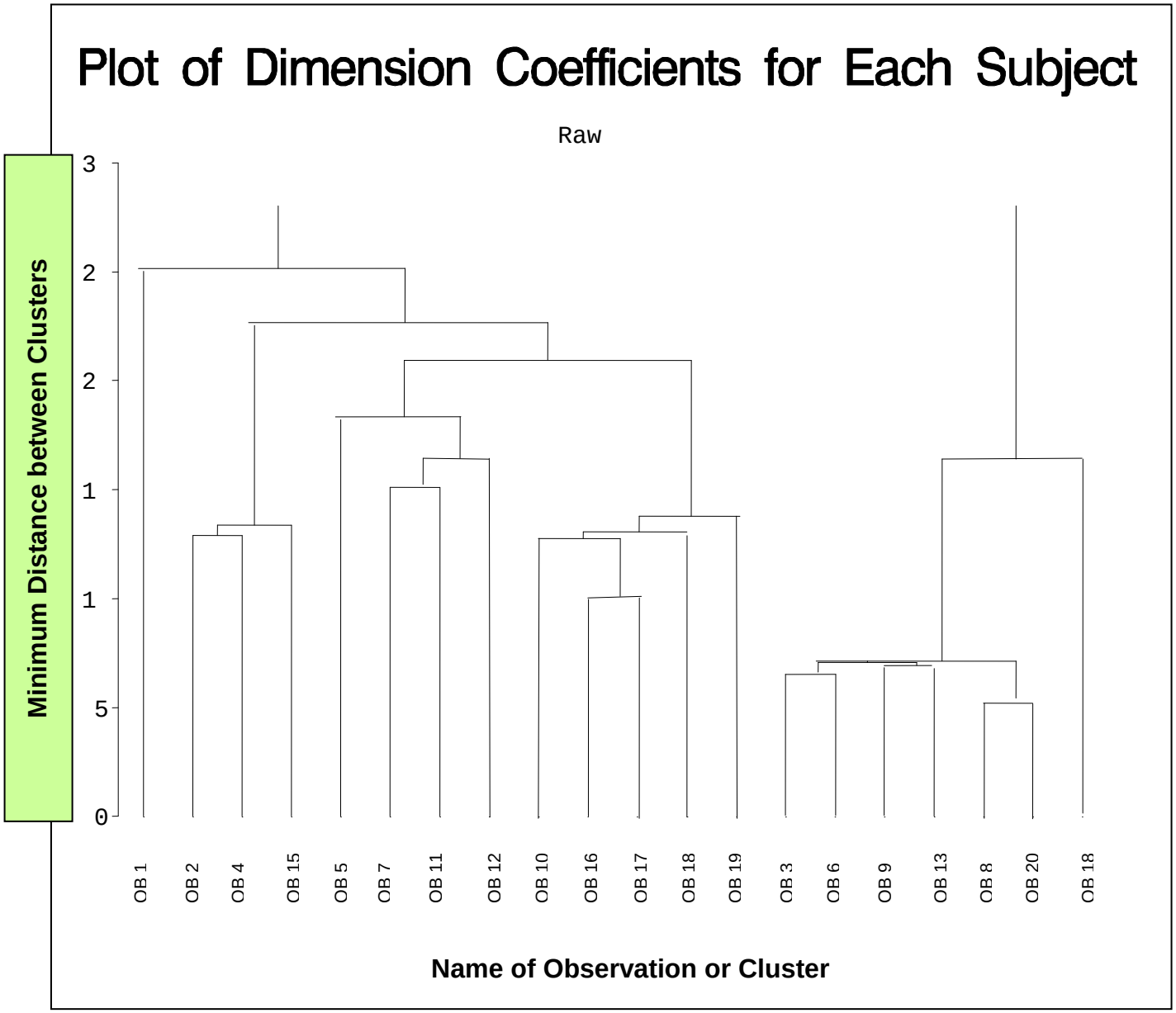


Figure 5.23 Tree Diagram

5.3.5 Non-metric dimensional scaling results and interpretation

5.3.5.1 Results of non-metric multi-dimensional scaling

As mentioned in Chapter 4, Section 4.9.2.3 several exploratory NMDS analysis were conducted and the analysis concluded with three dimensions (three groups/or clusters) as the best model that effectively described the variation in the data. The data was analyzed as row-conditional, at the ordinal level of measurement and the weighted Euclidean model was used. The output indicated that the iterative multidimensional scaling process converged in Table 5.26. The *Badness of fit criterion* reported in the third column of Table 5.27 is less than 0.1 at the final iteration (step 11). A badness-of-fit criterion less than 0.1 was regarded as sufficient indication that the data fitted the model.

Table 5.26 Non Metric weighted MDS, analysis history

Iteration	Type	Badness of-Fit Criterion	Change in Criterion	Convergence Measures	
				Monotone	Gradient
0	Initial	0.1050	.	.	.
1	Monotone	0.0623	0.0427	0.0719	0.4142
2	Gau-New	0.0562	0.006086	.	.
3	Monotone	0.0532	0.002985	0.0159	0.2922
4	Gau-New	0.0525	0.000692	.	.
5	Monotone	0.0473	0.005232	0.0191	0.1689
6	Gau-New	0.0470	0.000296	.	.
7	Monotone	0.0452	0.001855	0.0104	0.1334
8	Gau-New	0.0449	0.000285	.	.
9	Monotone	0.0438	0.001079	0.008175	0.1091
10	Gau-New	0.0435	0.000295	.	0.0234
11	Gau-New	0.0435	0.0000161	.	0.008382
Convergence criteria are satisfied					

Table 5.27 Configuration Matrix (MDS coefficients)

Shirt Design	Dimension 1	Dimension 2	Dimension 3
1	-0.12	1.80	-0.44
2	-0.94	1.81	1.36
3	1.28	0.44	0.55
4	-1.26	1.17	0.82
5	-0.45	-1.32	-0.39
6	1.19	0.66	0.07
7	0.13	-1.82	0.23
8	1.39	0.19	0.14
9	1.08	-0.02	0.99
10	-1.15	-0.76	0.44
11	0.41	-1.47	0.12
12	0.14	-0.72	2.15
13	1.22	0.10	-0.11
14	0.98	0.37	-1.31
15	-1.16	1.33	0.12
16	-1.04	-0.33	-1.40
17	-1.12	-0.40	-0.95
18	-1.17	-0.86	-0.35
19	-0.69	-0.38	-2.45
20	1.29	0.19	0.41

Figure 5.24 represents the plot of the overall fit presented below and, furthermore, verifies the model. The plot indicates that the fit is a good fit: the plot of the transformed values against the calculated distances from the model presents itself

as a straight line. This means that “if a model fits perfectly all points lie on a diagonal line from the lower left to the upper right”, which is the case in this study.

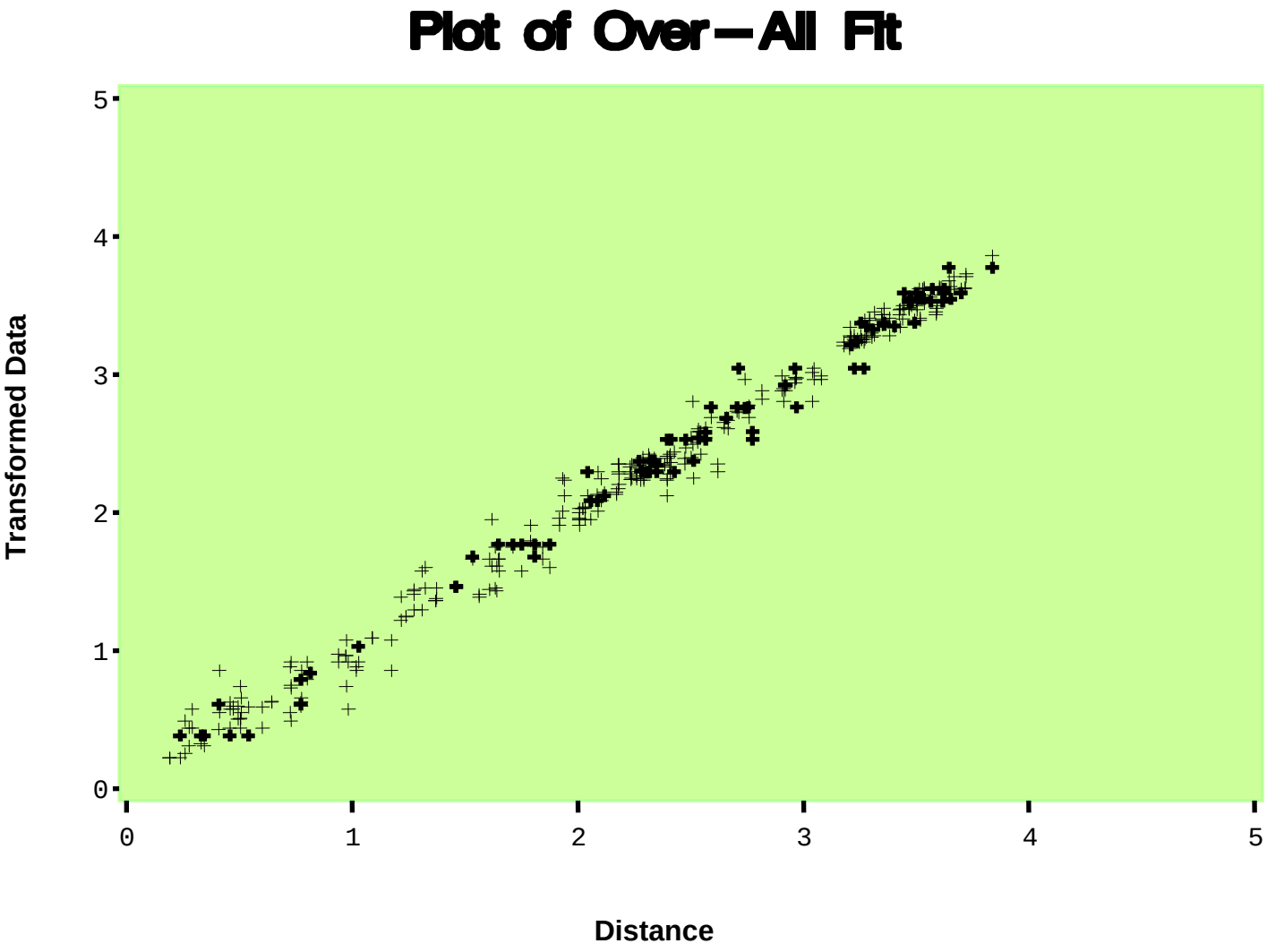


Figure 5.24 Deduction regarding the fit of the model

5.3.6 Bi-plots and interpretation

The scatter plots indicated in Figures 5.25a on pg 162 and 5.25b on pg 163 indicate how the groups that were identified in the multidimensional scaling analysis as distinctive groups and more distinctly defined in the cluster analysis as described in Section 5.3.5 and differ from one another if compared against the three MDS dimensions. It was also mentioned in Chapter 4, Section 4.9.2.1 that the dimensions of MDS explain the underlying structure of the similarity matrix if interpreted in terms of the spread of the clusters in any of the two-dimensional spaces of the three dimensions and in terms of the properties levels or combinations of the variables within each group.

In Figures 5.25a and b the MDS dimension coefficients of dimensions 1 and 2 and dimensions 1 and 3 are plotted against each other for each golf shirt design. Especially Figure 5.25a is informative and interpretable in terms of the design and textile qualities found in the golf shirt designs. Dimension 1 seems to indicate that the Clusters CL10 and CL4 differ with respect to design quality level combinations from CL7. Dimension 2 on the other hand distinguishes design groups CL10 and CL7 as being different to CL14 with regards to its design and textile quality level combinations for the golf shirt designs.

If the golf shirt design qualities are compared to the different groups, clusters CL10 and CL4 differ from CL7 on the first dimension with regards to certain design qualities found in the golf shirt designs. CL7 golf shirt designs had collars included in each of the designs which gained popularity amongst the women golfers because golfers were required to wear a golf shirt that had a collar detail. This is reflected in the following quotation which came through from a participant's response regarding design 8, "*the collar works well for golf*". CL7 also indicated that most participants regarded design and style as a strong indicator when selecting golf shirts and are suggested in these statements, "*like design detail, very trendy, contemporary*" which indicated that women golfers considered design qualities to be a priority when selecting a golf shirt. The golf shirt designs were also more contemporary or fashionable for consumers to relate to. Designs also had sun protection, moisture

management and eco-friendly textile qualities which participants also considered important to have for women's golfing apparel and are highlighted in these statements, "*has all the textile qualities, like the moisture management, comfortable, I like the organic cotton used in the design*". CL10 on the other hand comprised of designs 2, 4, 15 and 1 which had very basic qualities to the designs and were viewed by most participants as "*outdated, boring, not fashionable*" and were not seen as a potential purchase when shopping for women's golfing apparel.

On the second dimension CL4 and shirt design 1 is different from the other two clusters CL10 and CL7. This could be attributed to the fact that CL4 is different from other designs on this dimension mainly due to the physical qualities of the golf shirt. Designs 5, 7, and 10 in CL4 had raised neckline details and had intrinsic qualities such as sun protection, moisture management as well as eco-friendly textiles used in some of the designs. Participant's responses varied because they felt that the high neckline detail was not suitable to play golf in and they would have preferred having a collar detail added to the design as indicated in these quotations, *"maybe if it had a collar, needs collar, neckline looks uncomfortable*". However, they did like the textile qualities added to the golf shirt designs and pointed this out in the following statements, "*too high neck but the rest of the design works, nice design but again with a collar*". This indicated that participants looked mainly at the styling of the golf shirt with specific needs in mind. Designs 16 and 19 represented golf shirts with neckline details as opposed to a collar detail. Designs again showed that textile qualities such as moisture management, sun protection and eco-friendly textiles were also part of the design. Participants were not in favour of the neckline detail but they liked the textile qualities added to the design as found in these statements, "*textiles yes but the design needs a collar, neckline no, need a collar, no crossover*". The responses again showed that participants felt strongly about certain style qualities and collars were a recurring quality that influenced their purchase decisions when shopping for women's golfing apparel.

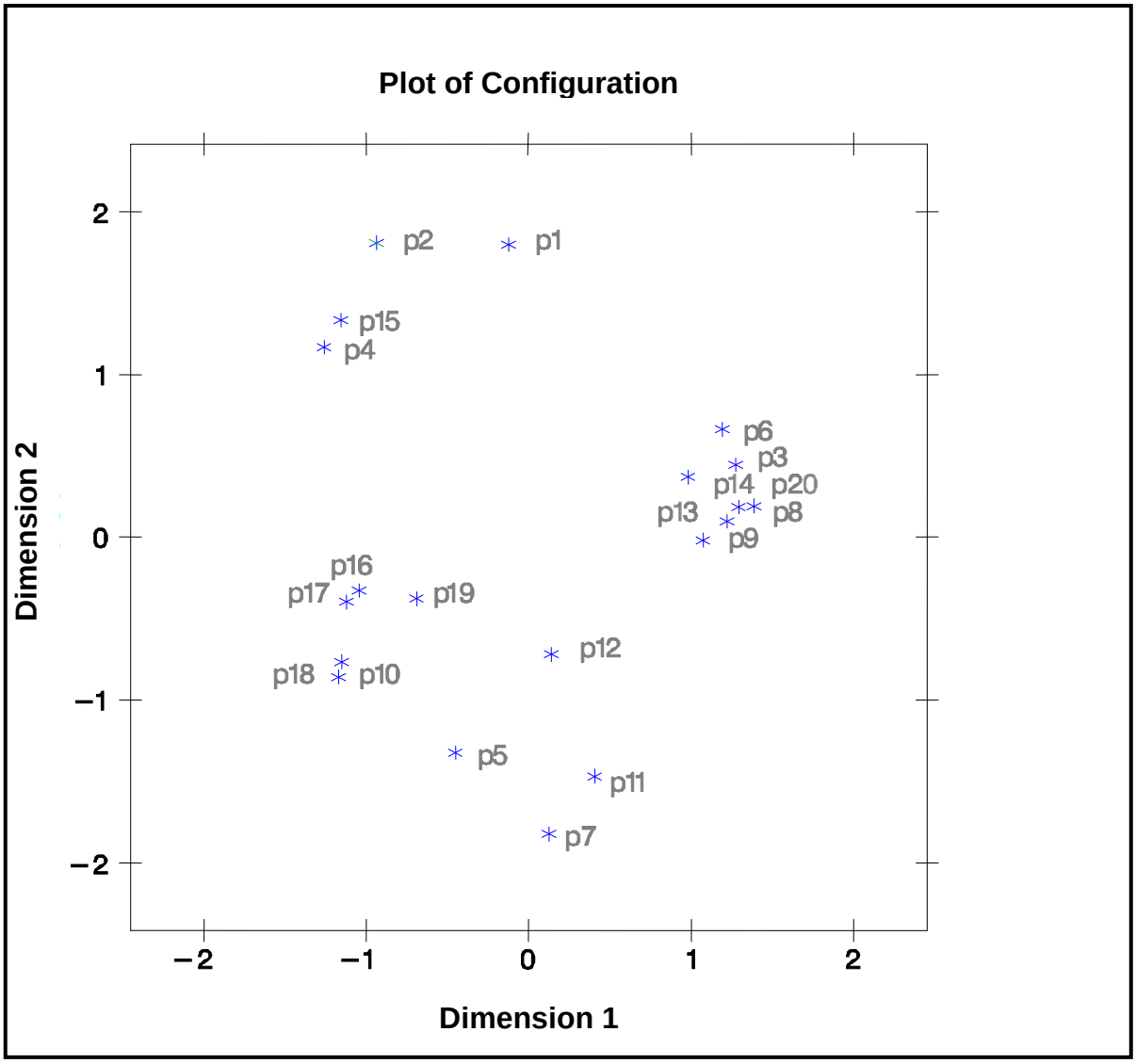


Figure 5.25a Plot of configuration

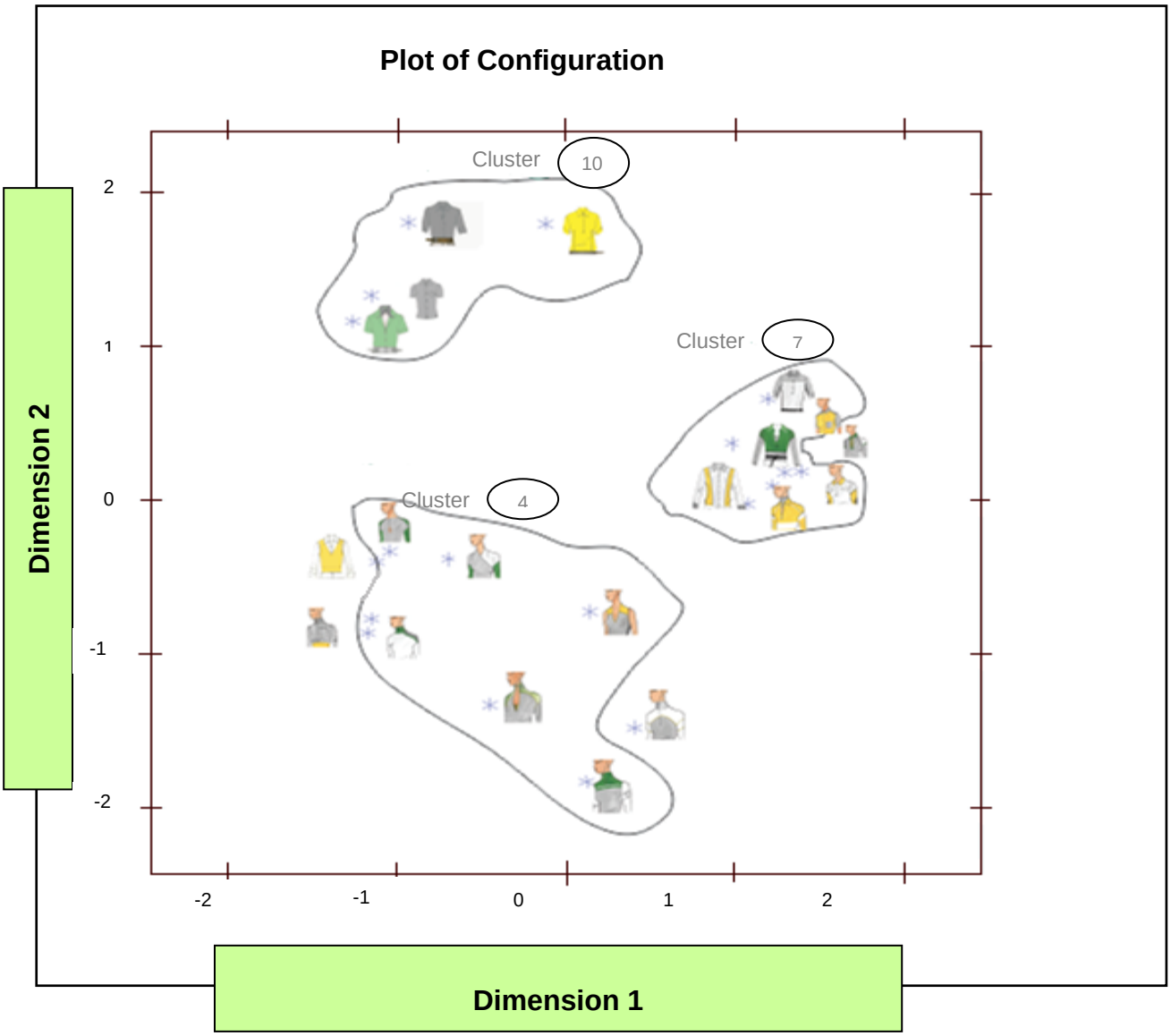


Figure 5.25b Plot of configuration

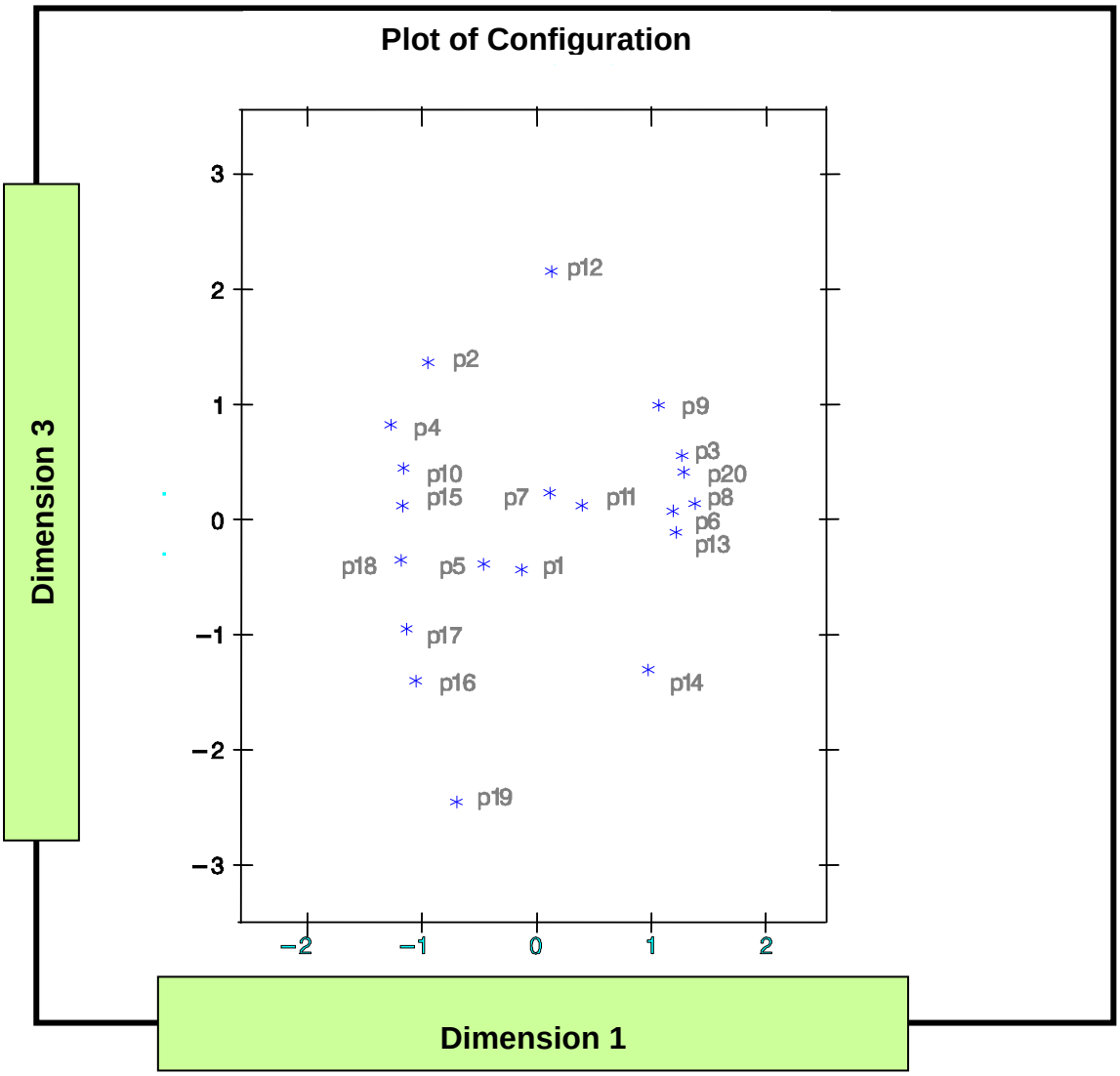


Figure 5.25c Plot of configuration

5.3.7 Summary of results, interpretation and extent to which research questions have been answered

Research Objective 1, sub-objective 1.1 and Objective 2 of the study as listed in Chapter 4 aimed to understand female consumers' perceptions of the physical qualities of golfing apparel. This was determined in terms of exploring the perceptions of intrinsic apparel qualities such as moisture management, sun protection, eco-friendly textile qualities, fibre content, colour and design qualities. Sub-objective 1.1 was aimed to explore consumer perceptions of intrinsic textile

qualities such as moisture management, ultraviolet protection and eco-friendly textiles in terms of style and design for women's golfing apparel. Objective 2 was aimed to determine consumer perceptions of behavioural qualities regarding women's golfing apparel in terms of its functional and aesthetic qualities.

Prior to the commencement of the focus groups, 20 designs for women's golf shirts were illustrated on sorting cards. The 20 designs were put together specifically with women golfers in mind. No prior knowledge concerning the dress code of golfers was taken into consideration when designs were simulated. Textile qualities found in the designs included two nano-textiles, moisture management and ultraviolet protection as well as naturally produced eco-friendly textile qualities together with design and style qualities like collars, necklines, openings, sleeves lengths, yokes, pockets, etc. As part of the study participants were required to participate in the sorting task. Each of the participants was given a pack of sorting cards containing designs of women's golf shirts and each card was numbered from 1-20. Each of the participants was then requested to stack the cards in a pile that had something in common to them and they were also allowed to make as many piles as they desired. Participants were also requested to explain what each pile of the cards signified to them.

The analysis results indicated that distinctive groups could be formed of the 20 shirt designs. The results found in Table 5.2.5 indicated golf shirt designs which grouped most closely together and similar findings were shown in Figure 5.2.5a which illustrated the multidimensional scaling analysis results. It can be seen that cluster CL7 which included golf shirt designs 3, 6, 8, 9, 13, 14 and 20 were plotted closely together. The dress code of women golfers came through as an underlying dimension, as most participants indicated that they had specific needs in terms of what they were required to wear on the golf course. One of their dress code requirements was a collar feature which was common in all of these golf shirt designs. This was further validated by the participants' responses to the following designs and was suggested in the following statements, "*it has a collar for golf, like the peter-pan collar, like the collar*". From the results it was evident that participants deemed certain design and textile qualities as important. For instance some of the responses that came through indicated that participants were satisfied with the

designs found in CL7 as indicated in the following statements, "*nice design, like the design, this I would wear"*. With regards to their selection of golf shirts participants pointed out they were drawn to the first intrinsic apparel quality, design qualities and only then did they consider other intrinsic qualities that the garment offered as mentioned in the following statements, "*design first, looks attractive, like the design features*". Other intrinsic apparel qualities for example moisture management, sun protection as well eco-friendly textile qualities participants indicated they considered and were interested in only if the style and design of the golf shirt was appealing, and this was true in the case of CL7 as all designs carried one of these textile qualities. Another underlying dimension to participants selecting these designs was based on the behavioural qualities of the garment in terms of its functional and aesthetic qualities. Participants were of the opinion that designs 3, 6, 8, 9, 13, 14 and 20 looked comfortable in terms of the design and fit as well as the functional qualities for example moisture management provided in Design 3 as highlighted in these statements, "*looks comfortable, nice moisture management detail*". When looking at the aesthetic qualities found in cluster CL7, most participants added that Design 9 was for instance "*very trendy*" and similar responses were heard about the other six designs. The findings from the multidimensional scaling analysis validated that design qualities were important and it was these physical qualities which played a role in participants selecting designs in cluster CL7.

Figure 5.25b results showed that cluster CL4 golf shirt designs differed from CL7 with regard to certain design and textile qualities. CL4 golf shirt designs consisted of designs 5, 7, 10, 12, 16, 19 and each of the designs had a textile quality like moisture management, ultraviolet protection and eco-friendly added to the design. The difference that was found by all participants was that each of the designs did not have a collar which was part of the dress code to play at the respective Golf Clubs. This was evident with the responses taken from most participants which are indicated in these statements, "*maybe with a collar, no collar but like the rest of the design, needs a collar*". Participants focused on the design qualities of the golf shirts found in CL 4 and added that the raised necklines in designs 10, 7 and 5 were too high and the golf shirts looked uncomfortable to play golf in and are highlighted in the following statements, "*too high neckline, does not look comfortable, the high neckline looks restrictive and uncomfortable*". A few participants were not in favour of the

cross-over design (19) as it looked uncomfortable and is indicated in this quote, "*does not allow for easy movement*". The results from the findings showed that most participants were concerned with design qualities which addressed their specific needs and only then did they consider the textile qualities that came with the design as suggested in the following quotation, "*moisture management detail is nice but the neckline looks uncomfortable*". The results from the findings also indicated that behavioural qualities which are part of the functional and aesthetic qualities played a role in how participants selected these six designs.

The results and findings from cluster CL10 showed designs 2, 4, 15 and 1 were grouped closely together. The results validated the findings that participants were not satisfied with the design quality in particular and this was reflected in the following quotations, "*too simple, too basic and old fashion, very masculine, outdated, don't like*". This also indicated that due to the poor design quality of the designs participants did not select them as a golf shirt they would consider buying. Based on the results it can be concluded that participants were drawn first to the design of the golf shirts and also its aesthetic qualities in terms of style, silhouette and appearance.

5.4 SUMMARY

The aim of the research was to conduct a perceptual exploration of women's golfing apparel qualities and how this influenced the purchase decision. The study explored how physical and behavioural apparel qualities for women's golfing apparel were evaluated by participants looking at intrinsic, extrinsic, functional and aesthetic apparel qualities. More especially textiles with moisture management, ultraviolet protection and eco-friendly qualities were also explored.

In light of the objectives set out for the study a qualitative research methodology was applied. A triangulation of methods was used to see how much information could be captured from the different methods used and to see if something new emerged from the data regarding the perceptual exploration of women's golfing apparel qualities and its influence on the purchase decision. Firstly focus group interviews were used

followed by a design card sort and lastly a sentence completion exercise was applied. The focus group interviews and the sentence completion exercise used a qualitative approach when analysing the data whereas the design card sort used a quantitative approach to analyse the data.

Through these methods direct evidence regarding similarities and differences concerning participant's opinions and experiences emerged regarding physical and behavioural apparel qualities. Certain conclusions can be drawn from the results of the empirical study which gives rich insight into and understanding of how participants perceive apparel quality in women's golf apparel and how it has influenced their purchase decisions. The results from both the qualitative and quantitative analysis conclude that participants evaluate both physical and behavioural apparel qualities. The majority of participants purchasing women's golfing apparel were mainly guided by the comfort and fit of the apparel and emphasized strongly that design and style of the garment were also important. A further conclusion was textile qualities such as moisture management, ultraviolet protection and eco-friendly apparel qualities which participants highlighted as important to have in women's golfing apparel but was not what they based their purchase decisions on.

The next chapter will provide a more in-depth discussion on the conclusion of the study and its contribution to theory.

CHAPTER 6
CONCLUSION OF THE STUDY

This chapter presents the discussion and implications of the findings, as well as further research possibilities regarding women's golfing apparel quality and presents a new conceptual model on the perceptions of women's golfing apparel quality.

6.1 INTRODUCTION

This chapter aims to provide concluding remarks regarding the study on the consumer perceptual exploration of women's golfing apparel qualities and the influence on the purchase decision. Consumers act and react on the basis of their perceptions (Schiffman and Kanuk, 2010:172) and this may influence consumer purchase decisions. Therefore, it was important to explore how women golfers perceived physical, behavioural and extrinsic apparel qualities found in women's golfing apparel. The discussion will firstly present some relevant conclusions for the study based on the research objectives set out in the study and secondly evaluate the research methodologies applied to execute the study. Moreover this chapter will also present a schematic conceptual framework for the perceptions of women's golfing apparel quality and its influence on consumer purchase decisions. The discussion will highlight the implications and recommendations of the study on women's golfing apparel followed by the limitations and suggestions for future research.

6.2 SUMMARY OF THE STUDY

The conclusions are based according to the set objectives of the study. As the number of women golfers grows in South Africa, it was necessary to explore how

consumers perceive women's golfing apparel qualities and how this has impacted on their purchase decisions. With golf being a demanding sport there has been an increasing interest for performance enhanced active sportwear. One can conclude from the results of the study that most participants had some knowledge or experience regarding functional textiles like moisture management and ultraviolet protection whereby participants demonstrated a keen interest on purchasing such golfing apparel. The majority of participants indicated that moisture management and ultraviolet protection were found in sport brands such as Puma and Nike and were more expensive to purchase on a regular basis. Moreover participants who had purchased sport brands like Puma and Nike were satisfied with the overall performance and indicated that they preferred purchasing golfing apparel that was of a higher quality. The majority of participants were fashion conscious and were guided more by style and design qualities when purchasing women's golfing apparel and indicated their dissatisfaction with the limited styles available at local golf retail stores in Gauteng.

With regards to behavioural functional qualities majority of participants pointed out that comfort and fit for women's golfing apparel were important qualities which influenced their purchase decisions. Most participants' evaluated comfort by assessing other apparel qualities such as style, textile quality, construction and finishes with regards to women's golfing apparel. Another important conclusion is that participants evaluated women's golfing apparel by its aesthetic qualities, in other words if the golfing apparel provided a feel good factor. The sensory aspect of aesthetics refers to the intrinsic apparel qualities that are experienced by the use of one or more senses such as colour and physical lines of the golfing apparel.

6.2.1 Consumer's perceptions of physical qualities for women's golfing apparel (Objective 1)

Conclusions regarding the exploration of consumer perception's of physical apparel qualities for women's golfing apparel. The physical apparel qualities explored were intrinsic textile qualities namely 1) moisture management, 2) ultraviolet protection, 3)

eco-friendly qualities 4) design and 5) construction regarding women's golfing apparel.

As with the interpretation of results concerning Objective 1, the conclusion of the results from the study will be discussed simultaneously to avoid repetition. Certain conclusions can be drawn from the results which explored consumer perceptions regarding intrinsic textile qualities such as moisture management, ultraviolet protection and eco-friendly qualities.

Firstly when looking at the intrinsic textile qualities one can conclude from the results that women golfers understand properties associated with moisture management and ultraviolet protection textiles and its efficacy for women's golfing apparel. In other words moisture management and ultraviolet protective textiles provided both comfort and protection during sporting activities, in this case golf. This understanding is mainly due to an awareness created by reading magazines, swing tag information, advertising and personal experience with performance textiles used in golfing apparel. A further conclusion was a growing interest by participants towards having moisture management and ultraviolet protection in women's golfing apparel. However, participants did not rely only on intrinsic textile qualities when making purchase decisions regarding women's golfing apparel. The overall conclusion showed that participants relied more on other intrinsic qualities such as style and the design of women's golf shirts.

With regards to eco-friendly textile qualities, there was a growing interest from participants concerning the environment and creating awareness through the marketing of eco-friendly apparel. A conclusion can be made that women's eco-friendly golfing apparel will give consumers more product alternatives at the evaluation stage. Another reason is golf retail stores like Golfers Club and the Pro Shop do not market women's eco-friendly golfing apparel and, therefore, this option is not been made available to women golfers.

A further conclusion with regards to design qualities for women's golfing pointed to majority of participants being dissatisfied with the golfing apparel marketed to them. Participants concerns relating to design qualities stemmed from having specific style expectations which were not met and limited style options to choose from. For example a golf shirt must have a collar detail which was a pre-requisite for playing

golf. Because golf is a social sport and is played amongst women it is important for women golfers to look and feel good in the golfing apparel they purchase. One can conclude from the results that women golfers demonstrate a strong fashion involvement and are guided by style and design of the golfing apparel to meet their individual sporting preferences. This was demonstrated in the design card sort whereby the results indicated that more contemporary style of women's golf shirts were selected as their first preference.

6.2.2 Objective 2

Conclusions regarding the exploration of behavioural apparel qualities for women's golfing apparel in terms of functional and aesthetic apparel qualities.

The physical apparel qualities are known to influence the behavioural apparel qualities (De Klerk and Lubbe, 2006). Certain conclusions can be drawn from the results regarding behavioural qualities for women's golfing apparel which were made up of two parts namely, functional and aesthetic apparel qualities. Most participants in the study indicated that they relied more heavily on functional qualities such as comfort, durability and fit when evaluating women's golfing apparel. It became clear that participants had sufficient knowledge concerning the physical apparel qualities. In this case participants had some understanding and knowledge concerning moisture management and ultraviolet protective textile qualities used in the design of women's golfing apparel. Participants were also aware that the intrinsic textile qualities influenced behavioural qualities within women's golfing apparel in terms of comfort, durability and fit. Comfort firstly because golf is an active sport which is played for long hours and requires one to stay dry and cool and secondly, the fit of the apparel for easy arm movement and flexibility of the sport. A few participants pointed out that they experienced problems with the fit of women's golfing apparel as the current styles did not cater for big or larger size women.

With regards to the functional textile qualities some participants had previous purchase experiences and were satisfied with having a moisture management quality and an ultraviolet protection quality. Participants were pleased that the

garment lived up to their expectations during a game of golf as the garment kept them cool during the game. Another behavioural apparel quality which participants evaluated at the purchase decision stage is durability of the golfing apparel looking at the garment construction as participants indicated that they wanted value for their money.

From the findings one can conclude from the participant's point of view that quality of women's golfing apparel does not only concern the functional behavioural qualities but also the behavioural aesthetic qualities when evaluating women's golfing apparel. According to De Klerk and Lubbe (2004), a relationship exists between aesthetics and the way consumers clothe their bodies to be appreciated by themselves and also by others. In the case of women golfers aesthetic qualities play an important role in the decision-making process that it sometimes overshadows other apparel qualities during the evaluation stage.

In general women golfers saw themselves as fashion conscious and were looking for apparel that looked feminine, attractive and worked well with their body shape. Participants pointed out that they were firstly drawn to the aesthetics of the garment which can also be described as the beauty of the apparel product. What the garment looked like on them, how the garment made them feel and how the garment was viewed by others was very important to them when purchasing women's golfing apparel. Participants' were also of the opinion that golf being a social sport they were in constant interaction with other female golfers and wanted to look their best on the golf course, therefore, it was important to select appropriate and attractive golfing apparel. One can conclude from the results when exploring aesthetic apparel qualities for women golfing apparel that participants were dissatisfied with the limited range of style options available at the Pro Shop and Golfers Club retail stores.

6.2.3 Objective 3

Conclusions regarding how physical and behavioural apparel qualities influenced the purchasing decisions of women's golfing apparel consumers.

Marketers who understand why consumers purchase or do not purchase apparel will succeed in communicating with consumers once they understand consumers buying behaviour. Therefore, this exploratory study investigated the importance of physical and behavioural apparel qualities when female consumers' evaluated women's golfing apparel at the purchase stage. To summarise physical apparel qualities consist of intrinsic qualities such as design, colour, fibre, moisture management, ultraviolet protection and eco-friendly textile qualities. Whereas behavioural apparel qualities include functional qualities such as durability, comfort and fit of the apparel product and lastly aesthetic qualities include design and appearance of the garment.

The overall conclusion indicated that participants were first guided by comfort and fit of the golfing apparel product at the evaluation stage of the decision making process. Comfort is associated with how the garment fits on the body looking at the shape and size of the individual. The construction and workmanship of the garment is a contributing factor and also how the textile used in the design feels on the skin from a sensory level. Participants perceived comfort as a key factor which they considered when purchasing women's golf apparel. The reason being golf is an active sport which is played for long hours on the golf course and golfers need to be comfortable.

A further conclusion highlighted that participants evaluated other apparel qualities when shopping for women's golfing apparel. In this case the physical intrinsic apparel qualities were explored and design dominated the discussion on the physical qualities of women's golfing apparel. The majority of participants used design and style qualities as strong indicators when selecting women's golfing apparel. The attractiveness of the golfing apparel was important and had to be appealing to participants on an emotional and cognitive level. One can conclude that women golfers have discerning design preferences but they all have the same desire, to look and feel good in the golfing apparel they purchase.

In retrospect the majority of participant's indicated their dissatisfaction with the design and style of women's golfing apparel being marketed at local retail stores. Some of the reasons that attributed to their dissatisfaction were expressed by participants in the study as limited styles options due to smaller range of

merchandise being marketed. Furthermore, participants pointed out that dissatisfaction often led to them not purchasing women's golfing apparel.

Some conclusions drawn from the results on intrinsic textile qualities such as moisture management and ultraviolet protection found that participants perceived these qualities as important to have in women's golfing apparel. The reasons from participants indicated that they perceived these textiles to add quality to women's golfing apparel by providing comfort through moisture absorption properties and personal protection from ultraviolet radiation. Some participants purchased branded golfing apparel such as Nike and Puma and were of the opinions that these brands were of a superior quality as they had a moisture management and ultraviolet protection quality.

6.2.4 Objective 4

Conclusions regarding the exploration of consumer expectations of physical and behavioural golfing apparel qualities and to determine the extent to which these expectations were met at the post- purchase stage.

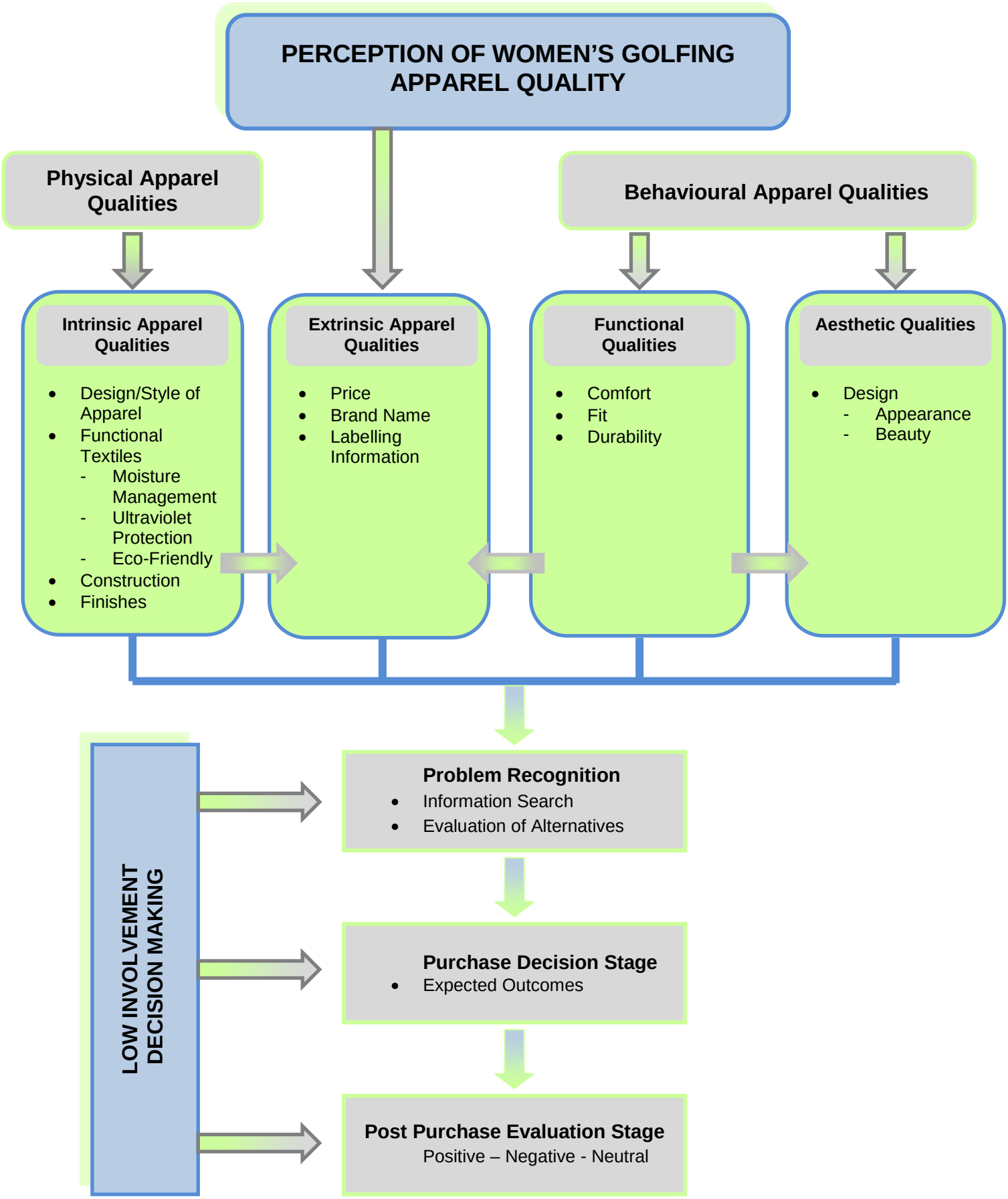
The post purchase response is the reaction of the consumer after the product has been in use. Consumer reactions are known to be positive, negative or neutral (Du Plessis and Rousseau, 2007). Negative responses to an apparel product can be harmful to retailers as negative feedback is spread much faster among a consumer group, in this case women golfers. The following conclusions can be made with regards to participants' expectations of physical apparel qualities found in women's golfing apparel at the post-purchase stage. Participants who had purchased sport brands like Puma, Nike and local brands like Cutter & Buck were satisfied with the overall performance of the garment. Most of these sport brands used specialist textiles, in this case moisture management and ultraviolet protection textiles were used for sporting efficacy. In fact performance textiles are known to provide functional qualities such as comfort and sun protection. As a result participants were satisfied that the garment was able to perform well in hot climatic conditions during a game of golf and lived up to their expectations. When looking at eco-friendly textile

qualities fewer participants experienced wearing an eco-friendly t-shirt and were satisfied with the comfort of the tactile experience. One of the main reasons that a minority of participants had post-purchase experiences with eco-friendly golfing apparel was the unavailability of eco-friendly textile qualities used in the design of women's golfing apparel.

With regards to design qualities one can conclude that the majority of participants were not completely satisfied with the style qualities found in women's golfing apparel they had purchased. This may be attributed to the limited style options marketed at golf retail stores which left them with few product alternatives to choose from. Some of the reasons for participants' dissatisfaction with design qualities stemmed from finding styles that were more masculine and boring. Most participants indicated that they preferred purchasing women's golfing apparel that is unique, sporty and trendy.

When evaluating behavioural golfing apparel qualities at the post purchase stage one can conclude from the discussion with participants that comfort was rated the most important quality before and after purchase. Intrinsic apparel qualities such as design, textiles, construction and finishes are known to influence functional behavioural qualities which are comfort and durability (Brown and Rice, 1998). Some participants indicated that they were guided by fit and by the sensory feel of the textile used in the design in order to determine comfort of golf apparel. One of the reasons for consumers to evaluate the performance of apparel at the post-purchase stage is to determine their satisfaction or dissatisfaction with their purchase. Satisfaction with a particular sport brand in this case may mean a repeat purchase.

6.3 THE NEW CONCEPTUAL MODEL ON PERCEPTIONS ON WOMEN'S GOLFING APPAREL QUALITY



6.3.1 Contribution to theory (Objective 5)

Figure 6.1 is a schematic representation of the conceptual framework perceptions of women's golfing apparel quality. De Klerk and Lubbe's (2004) model on apparel quality and Abraham-Murali and Litttrell's (1995) model on perceptions of apparel quality were studied and served as a point of departure for developing this conceptual model on perceptions of women's golfing apparel quality. This model was developed specifically on how participants perceived apparel qualities regarding women's golfing apparel and how these perceptions influenced their purchase decisions. The specific contributions of the study will now be discussed.

The purpose of developing a conceptual model is to assist researchers to identify possible variables that influence purchasing decisions regarding apparel quality in this case women's golfing apparel. The conceptual model will also contribute to theory building when exploring consumer perceptions of apparel quality and its influence on consumer purchase decisions. No retailer would be able to influence purchase decisions without an understanding of how consumer perceptions on apparel quality impact shopping behaviour. As the number of women who participate in golf increases, there is a growing demand for active sportwear, but the availability of women's golfing apparel in particular may not meet the diverse needs of women golfers. The following discussion will provide a clear interpretation of a new conceptual model on the perception of women's golfing apparel quality. This would provide sport retailers that market women's golfing apparel in South Africa with a holistic view of how women golfers perceive apparel quality regarding women's golfing apparel and how this led to a low involvement purchase decision process.

Perceptions of women's golfing apparel quality were largely influenced by physical and behavioural apparel qualities. Firstly physical apparel qualities are intrinsic qualities found in women's golfing apparel which include design, moisture management, ultraviolet protection, eco-friendly textile qualities, construction and finishes. Secondly, behavioural apparel qualities included functional qualities such as comfort, fit and durability. Aesthetic apparel qualities included design, appearance and beauty which forms part of the behavioural apparel qualities. Extrinsic apparel qualities consisted of price, brand name and labelling information.

Participants evaluated intrinsic, extrinsic, functional and aesthetic qualities for women's golfing apparel at the pre-purchase stage whereby they evaluated the apparel product against other product alternatives. The Engel *et al.* (1978) low consumer behaviour model was used to support the consumer decision-making process with regards to female consumers purchasing women's golfing apparel. The level of consumer involvement with a product has been described by Schiffman and Kanuk (2010:229) as the degree of personal relevance that the product holds for the consumer. Firstly high-involvement consumers require more problem solving and information processing before they decide on purchasing the product more so when purchasing expensive products such as diamond jewellery. On the other hand low-involvement purchases are seen as not so important to the consumer because they hold less relevance and perceived risk (Schiffman and Kanuk, 2010:229). Based on this knowledge and theory from Engel *et al*. (1978) low consumer behaviour model one can conclude that women golfers are low-involvement consumers. There are far less product alternatives to choose from with regards to women's golfing apparel and, therefore, less information processing that occurs at the purchasing decision stage. The consumer is either satisfied or dissatisfied with the choice of women's golfing apparel she has selected to purchase.

6.4 IMPLICATIONS AND RECOMMENDATIONS

From the findings it is evident that two conclusions be made on how participants perceive apparel qualities in women's golfing apparel. Participants evaluated women's golfing apparel at the evaluation stage and again at the post-purchase evaluation stage. In fact from a consumer's point of view the quality of women's golfing apparel quality does not only concern physical intrinsic apparel qualities but also explores behavioural apparel qualities.

From a theoretical viewpoint apparel products are seen first as having physical intrinsic qualities such as design, textiles, construction and finishes and secondly behavioural apparel qualities include functional and aesthetic qualities (De Klerk and Lubbe, 2004). The physical intrinsic qualities are known to influence behavioural

qualities in terms of what the apparel can achieve. In the case of women's golfing apparel intrinsic textile qualities like moisture management will influence functional qualities such as comfort and durability. The reason for this is that moisture management qualities are known to keep the wearer cool and dry and are appropriate for active sportwear. Participants indicated that functional qualities such as comfort and fit influenced their purchase decisions regarding women's golfing apparel. This suggests that intrinsic textile qualities such as moisture management and ultraviolet protection used in women's golfing apparel does impact on the overall performance of women's golfing apparel.

One can conclude from this study that participants perceived aesthetic qualities in women's golfing apparel as important during the evaluation stage. The sensory beauty and appeal that the golfing apparel brought about was of major concern. Although the conclusions made in this study cannot be generalised to the broad population certain recommendations can be made.

6.5 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Because apparel is a multidimensional concept (Kaiser, 1998:30) the study was exploratory in nature whereby a qualitative research paradigm was used. One of the limitations of the study was the relatively small sample size. Recruiting participants in-store was difficult to target, therefore, a sample was taken from the Silverlakes and Woodhill Golf Clubs. It should be noted that there are certain limitations to this research that will also provide a basis for further research. Findings in this study can be used to direct future quantitative studies with a larger sample size that would ensure better representation. The sample used in this study was unintentionally but predominately white female golfers but future studies can exhibit a more representative demographic profile. Future research may include age groups as consumer perceptions with regards to physical and behavioural apparel qualities may differ based on age.

Another limitation is that participants only evaluated women's golf shirts during the design card sort and other golfing apparel can be included such as pants, dresses and skirts. Exploring perceptions of women's golfing apparel qualities and the influence on the consumers purchase decisions may require more research in order for sport retailers like Golfers Club and the Pro Shop to make strategic marketing decisions.

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ADDENDUM 1

TRANSCRIPTION OF THE FOCUS GROUP

A. PART 1 - FOCUS GROUP INTERVIEWS

FOCUS GROUP 1

1. *What is your understanding of golfing apparel for women that has moisture management properties?*

P1 - " I look for style first, I rather sweat than have to buy a garment that does not look good and I do understand that the property is suppose to keep you dry during your sport but it's not the first thing that draws me to the garment".

P2 - "I also look for style first and if the garment does have a moisture management property then I would consider buying the garment as an added feature".

P3 -"It would be good if the garment I was attracted to had this feature it would be a plus and also if the price was suitable".

P4 - "I am aware of this property in sports clothing, but it is not so readily available to women golfer's currently when I look for golf clothing. There is also not a lot available for the bigger size women and I personally don't think we are catered for at most sports shops".

P5 - "I think that sun protective textiles should be incorporated into fashionably styled garments that would make us feel and look good on the golf course. There really is not a lot of variety offered to our sport and it is also important to keep in mind that we do have certain pre-requisites pertaining to the dress code".

2. *What is your understanding of golfing apparel for women that has uv protection properties?*

P1-"I think that ultraviolet protection is important to have if you are on the golf course but I don't always find this property available to the style of garment I want to buy, if it is an added feature that comes with the garment, then that is a plus I will definitely buy the garment, I do think it is an important property to have in women's golf clothing".

P2 -"I also feel the same, uv protection is important, but I use enough sunscreen because I don't easily find the garments that I can wear to play golf that looks good ,and that is comfortable and will provide sun protection, if there were I would definitely buy it, and also the price is important".

P3- "I personally feel that if sun protection is added to a good design and is affordable and readily available to us that's looking for golf clothing then that would be nice, the clothing currently is very limited in terms of the styling, the fabrics used, we don't have a good selection to choose from, but sun protection is important to me personally".

P4-"the styling of the garment is my first priority and the comfort, the added sun protection is not that important to me when I shop for golf clothing".

P5 - "I would much prefer the moisture management property first and if the garment had a sun protection factor then that would be a good especially since we are exposed to a lot of sun on the golf course, the design is also very important to me, and since I am older (50) I find it difficult to find suitable clothing for my age-group".

3. *What is your understanding of golfing apparel for women that has eco-friendly properties?*

P1- "I have been gifted a garment that has eco-friendly properties and I found it to be rather comfortable, it's a pity that we do not have eco-friendly golf clothing available to us because I would personally consider buying it, and also if the price was affordable."

P2 - "I would rather have the sun protection, and moisture management properties as opposed to the eco-friendly textiles, it's not a major determining factor when I am looking for golf clothing."

P3 - "I agree with what she has just said, if designers used eco-friendly textiles for women's golfing apparel that would be nice, then we have more choices available to us, but at the moment we are forced to buy from other shops such as Jeep and Mr Price Sport because we don't find what we need at The Pro-Shops and Golfer's Club."

P4-"if eco-friendly golf clothing was available to us, yes I would buy it."

P5 - "From an environmental perspective, yes I would buy eco-friendly sports clothing for golf and also for the comfort, my only concern is the design features like the collar, openings also the label details."

4. *"Can you share with us some of the expectations you might have had when you saw that the women's golfing apparel product you were interested in had some of the intrinsic product qualities?"*

P1- "the most I have found is moisture management in the garment on its own, when I did buy and this was an Adidas garment, and I did pay more obviously because of the brand, but the garment did keep me dry and comfortable on the golf course. My only concern is that there is hardly enough designs available for us, as compared to the men's golf range of clothing available. Sadly I have not found eco-friendly golf clothing or I would buy the garment knowing how comfortable it feels."

P2 - "there really is not a lot available to us here in South Africa in terms of these textile qualities like sun protection, moisture management and eco-friendly qualities, my first approach to a garment, is the comfort and styling and I definitely will consider buying a garment if these textile qualities were incorporated together with interesting design features."

P3 - "I have seen uv protective sportswear but the merchandise is rather limited and some of the detail and styling does not meet my requirements to play golf, so

I end up buying a garment that I think I will look great in and most importantly that's comfortable to wear. It would be nice to have a wider range of clothing that meets our requirements. To be on the golf course you have to wear a sports shirt with a collar and some of the shirts that have moisture management or sun protection properties do not meet my requirements or I would consider buying the garment."

P4 - "I find that the sun protective and moisture management clothing like 'Coolmax' is available generally in a sports brands like Nike or Puma and I do buy a garment rarely, only because it is far too expensive to purchase frequently, but I do prefer having the added protection that the garment offers especially when you are on the golf course. And another thing is that you don't want to have sweaty armholes when you are playing golf."

P5 - "I am older and don't always find these textile properties in the clothing that I am attracted or I would buy them, I feel that sun protection, moisture management and eco-friendly are important to have in the clothing that we wear to the golf course but they just not available to us in the styles and colours that we want."

5. Sorting Task

[**P1**]

GROUP A	GROUP B	GROUP C	GROUP D
1 - organic cotton	**5** - collar too high	**13** - not with buttons	**8**
2 - sun protection	**7** - collar too high	**10** - neckline too high	**11**
3 - design, moisture/m	**18** - elasticated waistband no	**19** - cross over no	
4 - organic cotton		**15** - no detail	
6 - adjustable sleeve		**16** - key hole neckline - no	
9 - design nice		**17** - no with cuffs	
12 - moisture/m			
14 – design with attached sleeves			
20 - sleeve length with moisture/ m			

[P2]

GROUP A	GROUP B	GROUP C	GROUP D
3 - like collar and m/m detail	**1** – basic		
6 - adjustable sleeves-like	**2** - very boxy		
12 - nice needs collar	**4** - same, boxy		
13 - organic cotton	**5** - high neckline does not work for golf		
14 - nice but leave belt out	**15** – basic		
20 - like design	**16** - neckline not suitable		
8 - design nice and moisture detail	**17** - not with cuffs		
9 - design, looks comfortable	**18** - no elastic		
7 - nice but collar instead	**19** - cross over not for golf		
11 - nice design but too high neckline	**10**		

[P3]

GROUP A	GROUP B	GROUP C	GROUP D
1 - logo detail nice and organic cotton for comfort I like	**2** – outdated		
3 - moisture/m and design, nice	**4** – outdated		
5 - design nice but with a collar	**7** - high neckline		
6 - moisture and adjustable sleeves nice	**10** - high neckline		
8 - design with moisture/m, nice	**12** - not sleeveless		
9 – contemporary	**15** - too simple		
13 - uv and long sleeves, nice	**16** - needs collar		
14 - nice but leave out the belt	**18** - not for my body shape		
20 - very nice design	**19 -** no cross over		
17 - nice but no cuffs			
11 - collar rather			

[P4]

GROUP A	GROUP B	GROUP C	GROUP D
11 - uv-yes	**14** - nice without belt	**15** - not fashionable	
8 - moisture/m yes	**18** - with rather a collar	**2** - don't like	
20 - nice design details, moisture/m and uv	**7** - collar too high	**1** - don't like	
6 - moisture/m and adjustable sleeves-nice	**5** - collar too high	**4** - don't like	
9 - like design	**19** - cross over		
13 - organic cotton-like	**17** - no cuffs		
12 - nice for summer	**16** - with rather a collar		
3 - nice details	**10** - collar too high		

[P5]

GROUP A	GROUP B	GROUP C	GROUP D
11 - like uv8-design	**3** - my 2nd choice, like moisture/m and design details like the pocket	**14** – design, uv & organic cotton – nice, don't like belt detail - have wide hips	**1** - too simple
8 - nice design but with a collar	**9** - like design	**7** - collar rather	**4** - too basic and old fashion
20 - like design, uv & moisture/m	**13** - organic cotton-yes	**19** - cross over-no	**15** - too basic again
	12 - moisture/m yes	**17** - shirt no, cuffs no	**2** - very masculine
	5	**16** - needs collar	**10**
	6		**11**

6 *"If you consider all the qualities golfing apparel has such as moisture management, design, fit and functional apparel qualities that we have discussed or that you have mentioned how do these qualities contribute towards your decision to purchase these types of golfing apparel?"*

P1- I think that if these all these textile qualities (sun protection, moisture management and eco-friendly) were incorporated into the clothing that meets my requirements, for instance the fabric, colour, length and style, maybe pocket details, sleeve length as well as the collar then yes if all these qualities are combined I would consider buying the garment.

P2 - To me the quality of the garment is very, very important, I would rather pay more to get the quality that I need, and if these textile qualities are included then I would be eager to purchase the garment, but also the fit and design must be appealing, I find that most of the designs at the moment are boring and monotonous, it would be nice to look fashionable on the golf course because it ends up being a social event as well, and the ladies meet for tea or coffee afterwards so you want your clothes to look fresh after playing golf.

P3- To me quality, comfort and price are really what I look for and it would be wonderful if the designs were more appealing, I would definitely consider sun

protection and moisture management just as long as the clothing was not over priced. It's always difficult finding the correct length of the golf shirt, some of the ones I have is far too short and when you are lifting your arms during playing it tends to pull upwards which is really not nice. So definitely the way the garment fits and is styled also is a plus.

P4- I would definitely buy clothing that has all three qualities in them as long as the design is trendy and the fabric is of a good quality, also pants we can never find a good pair of pants to play golf in, I hope that they are able to design some for us. I prefer designs that are more classic and don't age easily and that is easy to wear.

P5- Even though I am older I also want to look good on the golf course, so the design that works for my body type is very important when I am looking for clothing, the design, styling, the type of collar as well the colour. If the textile qualities you mentioned are part of the design then yes I would consider buying the clothing. I sometimes end up buying a shirt from the men's range because I cannot find what I am looking for.

7. *"I am going to ask you to think for a minute about the women's golfing apparel items you have bought in South Africa that contain some of the golfing apparel qualities we have spoken about. Now I would like you to complete the following sentence for me. In general the expectations I had of women's golfing apparel that I have bought has....."*

P1-" I have found that the moisture management property is quite effective, it was a golf shirt and it did keep me dry and cool so it was rather effective but the styles of golf clothing I purchase is rather basic in terms of its fashion, it hardly ever changes so we are forced to buy what is available."

P2 - "the golf clothing that I buy is rather basic, it does not any of textile properties like sun protection and moisture management like you have just mentioned, and that is because I don't find it in the style or dress code which I prefer."

P3 - “Its ordinary I would hardly call it fashionable, it would be nice to have the comfort of moisture management and sun protection added because I am exposed to a lot of sun and burn easily and also you do start sweating because of the long walks on the greens.”

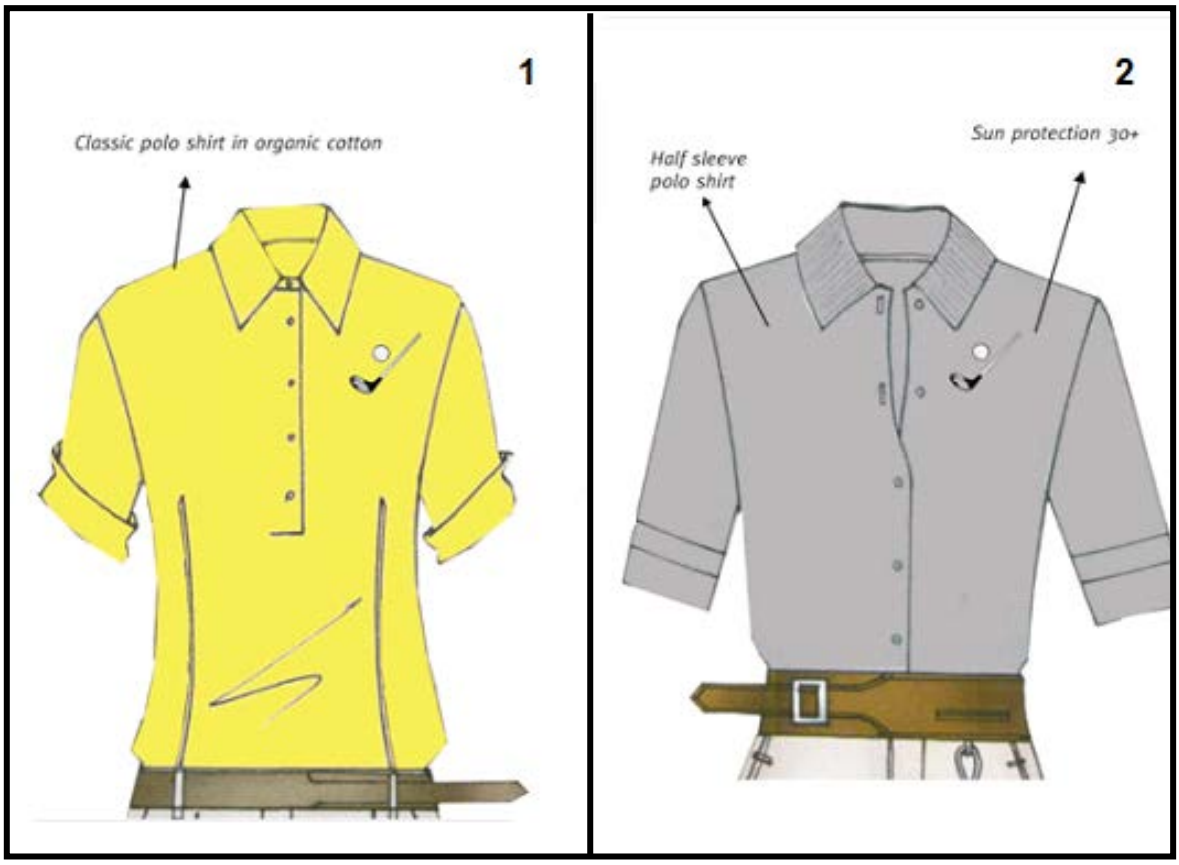
P4- “the Coolmax or moisture management in the golf shirt for instance does work, I find that the popular sports brand that I buy occasionally is of a very good quality and it delivers results when you are playing golf. The fabrics that they use are very comfortable and are easy to play with.”

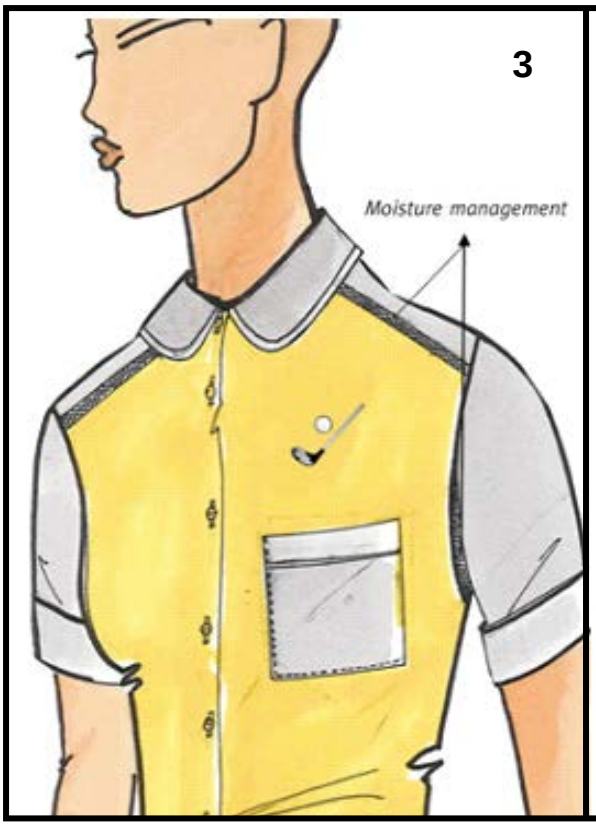
P5- “I do not find golf clothing that suits my body type so the clothing that I do buy really does not do anything for me on the golf course looking at the cut and fall of the garment. And the golf pants I have bought are rather uncomfortable.”

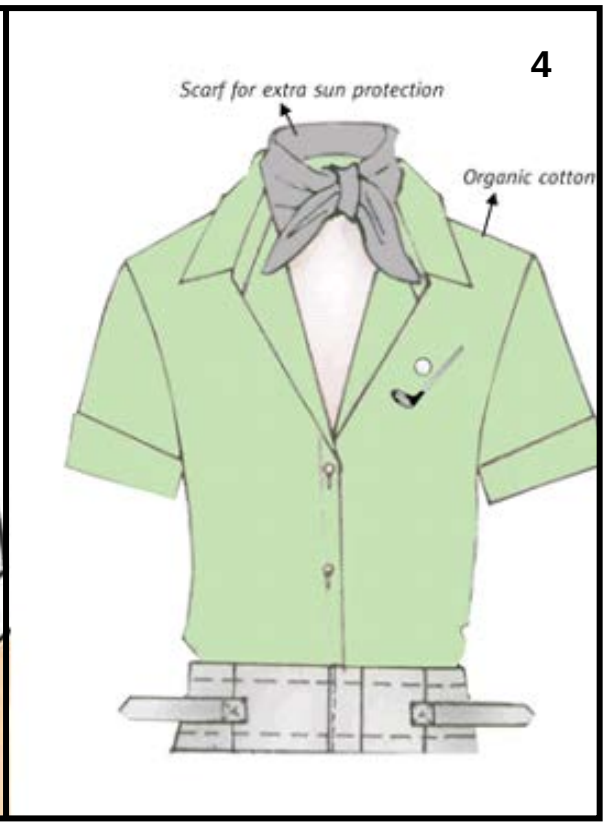
ADDENDUM 2

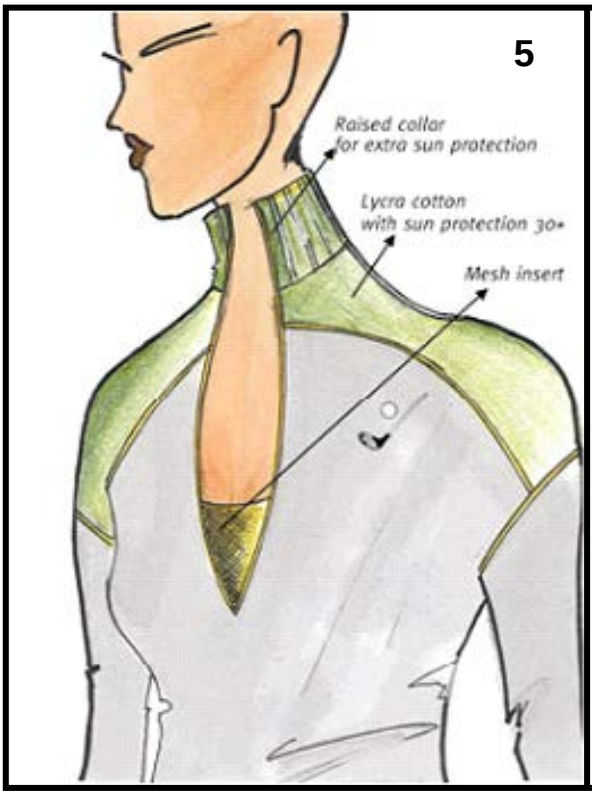
IMAGES OF WOMEN'S GOLF SHIRT DESIGNS

B. PART 2 - PHOTO SORTING TASK

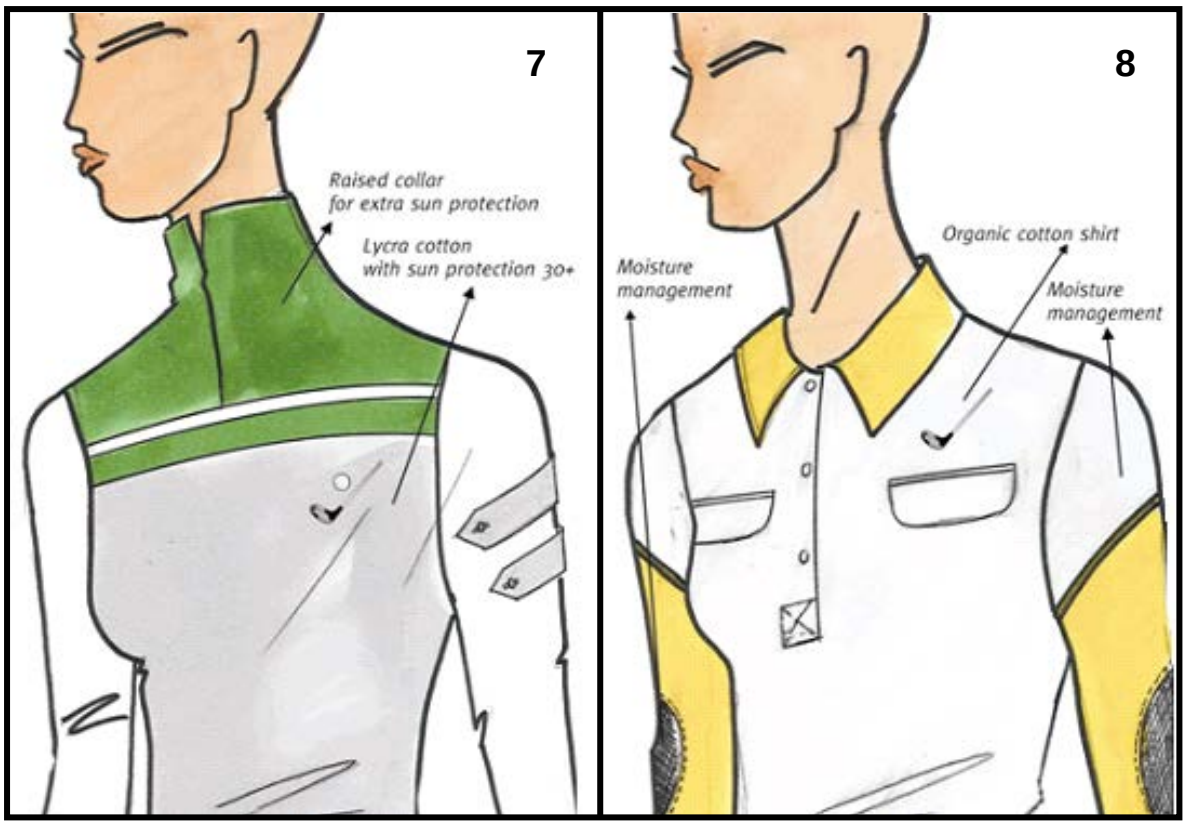


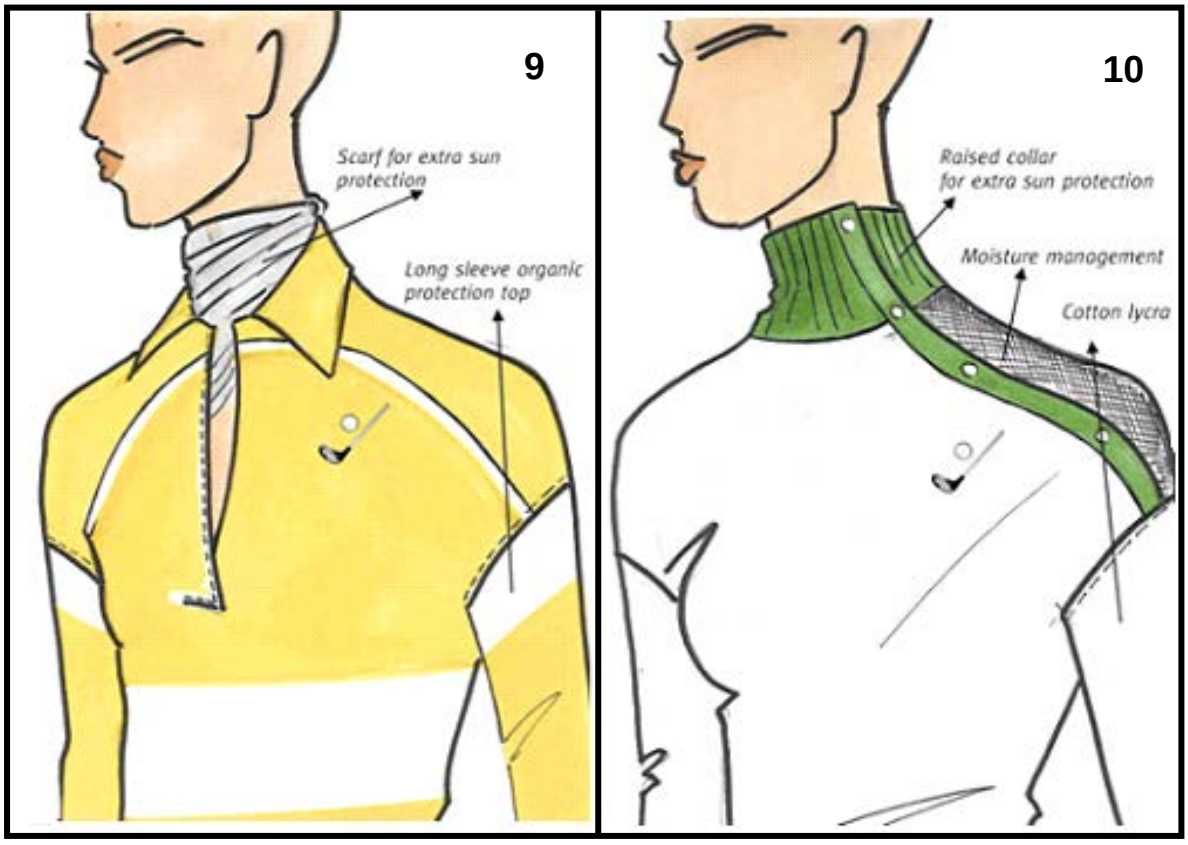

3
Moisture management

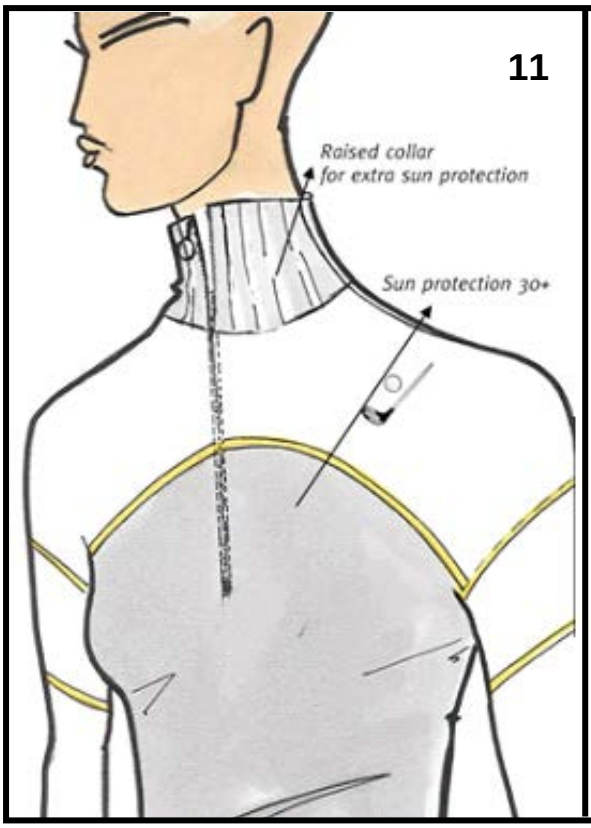

4
Scarf for extra sun protection
Organic cotton

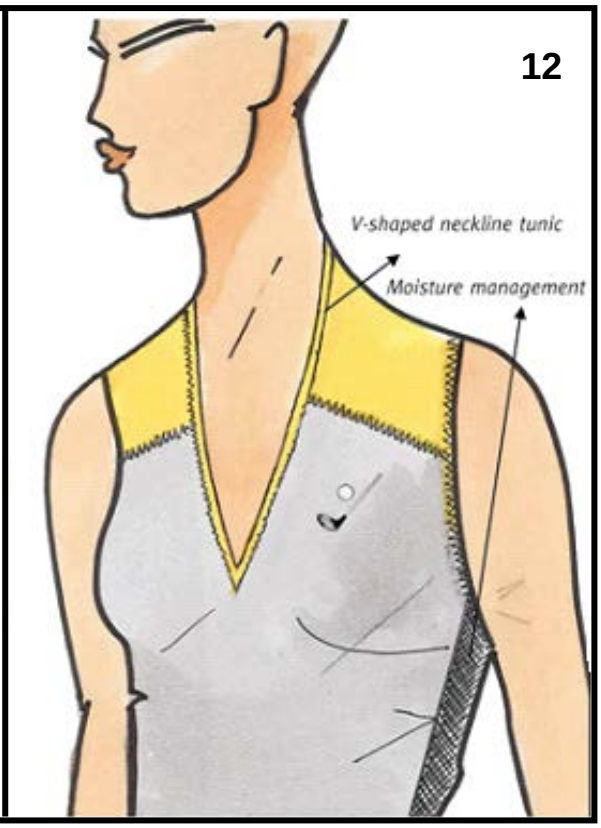

5
Raised collar
for extra sun protection
Lycra cotton
with sun protection 30+
Mesh insert


6
Organic cotton
Sun protection 30+
Moisture
management
Adjustable
sleeve


7
Raised collar
for extra sun protection
Lycra cotton
with sun protection 30+
8
Organic cotton shirt
Moisture
management
Moisture
management


9
Scarf for extra sun
protection
Long sleeve organic
protection top
10
Raised collar
for extra sun protection
Moisture management
Cotton lycra

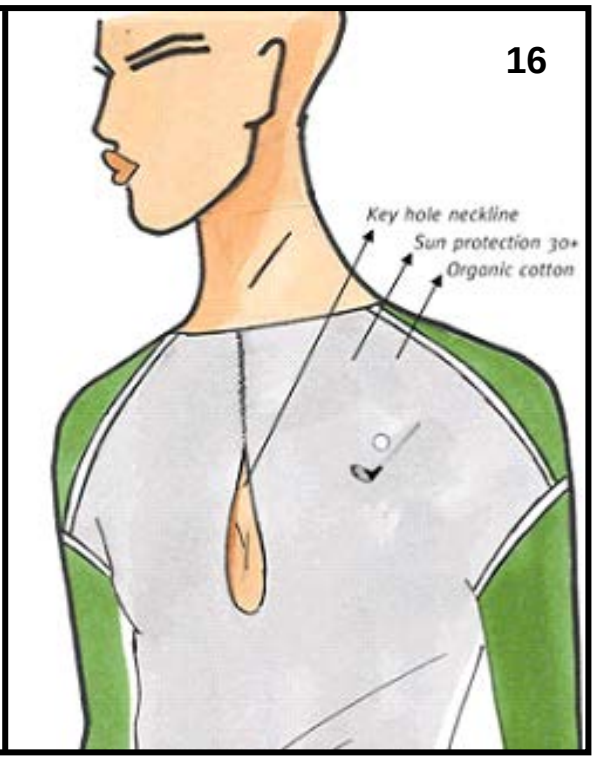

11
Raised collar
for extra sun protection
Sun protection 30+


12
V-shaped neckline tunic
Moisture management

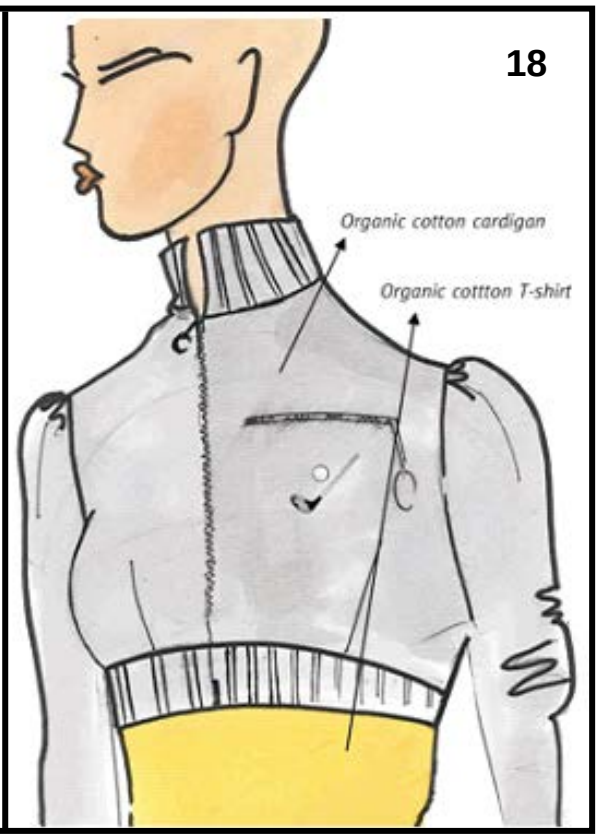

13
Organic cotton
Long sleeve
sun protection
30+

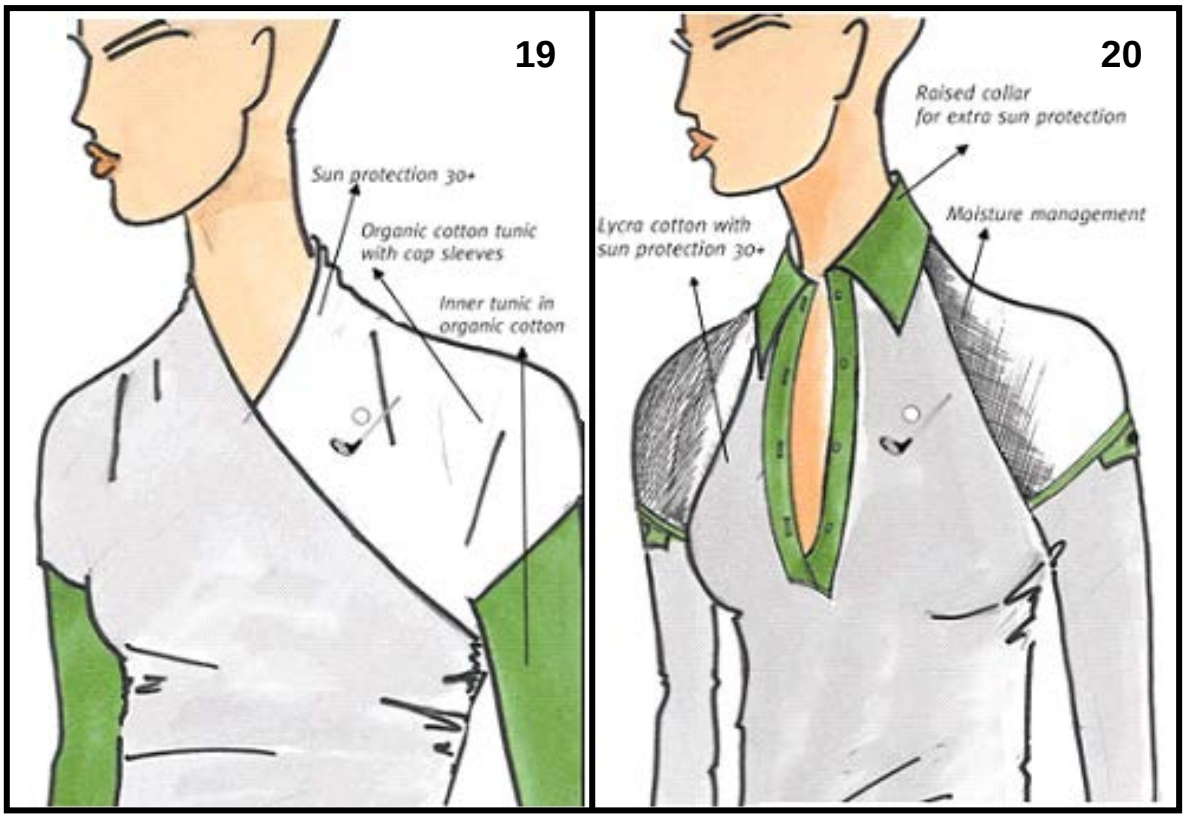

Organic cotton
Inner tunic
sun protection 30+
14


15


16
Key hole neckline
Sun protection 30+
Organic cotton


17


18
Organic cotton cardigan
Organic cottton T-shirt


19
Sun protection 30+
Organic cotton tunic
with cap sleeves
Inner tunic in
organic cotton
20
Raised collar
for extra sun protection
Lycra cotton with
sun protection 30+
Moisture management

ADDENDUM 3

PRO SHOP LETTER TO RETAIL STORE MANAGERS

UNISA university of south africa

Date: 03 September 2009

To: The Manager
Mr G. Scoop
Pro Shop
Menlo Park
Pretoria

Dear Sir,

I am currently pursuing a Masters Degree in Consumer Science, specific to clothing and textile through UNISA. The core focus of my study to understand the consumer's perception towards critical textile qualities, like moisture management, sun protection and eco-friendly properties aimed at women's golfing apparel in particular. This research would assist the sporting industry in understanding what the consumer needs are and in order for this research to be done I need to interview consumers in store and then invite them to a focus group discussion at a later date.

I would like to ask for your permission to interview consumers at your store in Menlyn. Consumers will not be pressured into participating; it will be done on a voluntary basis. The results of my findings can then be disclosed to Golfers Club for their marketing purposes.

The success of this research can only be made possible by your organisation, I would like to thank you for your time and I await your response.

Kind regards
Soloshna Naidoo
Lecturer: Tshwane University of Technology
Mobile: 082 818 7645
Office: 012 -3820682
e-mail: naidooSA@tut.ac.za

ADDENDUM 4

PARTICIPANT'S CONSENT FORM

CONSENT FORM

TITLE OF RESEARCH PROJECT

The Perceptual Exploration of Apparel Qualities for Women's Golfing Apparel: A Conceptual Model

Dear Mr/Mrs/Miss/Ms _____ Date...../...../2009

NATURE AND PURPOSE OF THE STUDY

The purpose of this research project is to explore consumer understanding of apparel qualities such as moisture management, sun protection, eco-friendly textiles and the perception of design and fit of ladies golfing apparel and how these qualities influence golfing apparel purchases as well as the expectations that consumers might have of the above mentioned apparel qualities. The study makes use of focus group interviews to gather this information from consumers who have been observed in-store reading golfing apparel labels.

RESEARCH PROCESS

1 The study requires your participation in a focus group interview to discuss ladies golfing apparel qualities and purchasing behaviour.

2 The focus group is led by a facilitator.

3 The focus group environment offers you the opportunity to express your opinion on the subject of ladies golfing apparel qualities and purchasing behaviour.

4 There are no right or wrong answers.

5 You do not need to prepare anything in advance.

6 All participants will be given the opportunity to express an opinion, or agree or disagree with the opinion of other focus group members. The group may debate the opinions of individual members of the group.

NOTIFICATION THAT THE FOCUS GROUP INTERVIEW WILL BE TAPE RECORDED

Your attention is drawn to the fact that the focus group interview will be tape recorded to ensure that valuable information elicited during the interview is captured and the context of the information can be reviewed in detail. Following the focus group interview, the recorded material will be transcribed. You may peruse the transcription of the recording of the focus group interview in which you participated at any time.

CONFIDENTIALITY

The opinions of the focus group are viewed as strictly confidential, and only members of the research team will have access to the information. No data published in dissertations and journals will contain any information by means of which focus group members may be identified. Your anonymity is therefore ensured.

WITHDRAWAL CLAUSE

I understand that I may withdraw from the focus group at any time. I therefore participate voluntarily until such time as I request otherwise.

POTENTIAL BENEFITS OF THE STUDY

In light of the growing women's' golfing market it has become apparent that apparel quality should also be researched in this market as nothing has been noted within the South African marketing context and even less in the international market. This information will be useful to retailers and manufacturers of ladies golfing apparel as there is a need to understand the way these qualities are used in the purchase of golfing apparel. This study may in future give rise to more specific retailing strategies and better consumer information where these apparel qualities are concerned. At the conclusion of the focus group interviews, participants will be compensated for their contribution.

INFORMATION

If I have any questions concerning the study, I may contact the supervisor, Dr Elizabeth Kempen, at the Department of Life and Consumer Sciences, Florida campus, Unisa, tel: 011 471 2241.

CONSENT

I, the undersigned, …….. (full name) have read the above information relating to the project and have also heard the verbal version, and declare that I understand it. I have been afforded the opportunity to discuss relevant aspects of the project with the project leader, and hereby declare that I agree voluntarily to participate in the project.

I indemnify the university and any employee or student of the university against any liability that I may incur during the course of the project.

I further undertake to make no claim against the university in respect of damages to my person or reputation that may be incurred as a result of the project/trial or through the fault of other participants, unless resulting from negligence on the part of the university, its employees or students.

I have received a signed copy of this consent form.

Signature of participant: .....

Signed at …… on ……

WITNESSES

1 .....

2 .....

ADDENDUM 5

REQUEST FOR ETHICAL CLEARANCE

UNISA university of south africa

Dr Antje Higgo
Chair: Ethics Review Committee, CAES

Tel: (011) 471 2984
Fax: (086) 642 7379
abartkow@unisa.ac.za

10.11.2009

To: **Ms S Naidoo**
Tshwane University of Technology
(012) 382 6082
naidoosa@tut.ac.za

CC: **Dr EL Kempen**
Department of Life and Consumer Sciences
CAES
kempeel@unisa.ac.za

Dear Ms Naidoo,

Request for Ethical approval / Research project (MSc) involving humans, animals other living organisms or gmo's as submitted 1 September 2009

Your application for ethical clearance in respect of above mentioned study has been received and was considered by the CAES Research Review Committee.

The committee is pleased to inform you that ethical clearnce has been granted for this study as set out in your application for ethical clearance as well as in the documents attached to your application.

Please be advised that the committee needs to be informed should your sampling method, interviews ir other data sampling tools be adjusted after your pilot trial. In this case, a new application for the amendments needs to be submitted.

We trust that sampling and processing of the relevant data will be undertaken in a manner that is respectful of the rights and integrity of participants, as stipulated in the UNISA Research Ethics policy.

Congratulations on an interesting and relevant study. We would like to wish you well in this research undertaking.

Kind regards

Dr A Higgo

ADDENDUM 6

EDITOR'S REPORT

This is to certify that the language editing of this dissertation by Ms S Naidoo was done by Prof L A Greyvenstein.

Prof L A Greyvenstein was a member of the South African Translators Institute, membership number: 1001691. She completed her primary, secondary and tertiary education, including a doctoral thesis, in English. She has done the English language editing of many proposals, dissertations, theses and scientific articles.

Leslev Ann Greyvenstein (Prof)
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Flamwood
Klerksdorp
2572
Tel: 018 468 7335 / 082 9744 505