

# Development of a guide for the visual assessment of the quality of clothing textile products

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## OPSOMMING

Internet verbruikers van kleding-tekstielprodukte het nie die voordeel om die produkte te hanteer of aan te pas nie. Dit beperk hul oordeel oor sekere eienskappe van die produk. Dit kan weer 'n invloed hê op die keuses wat hulle maak, op hul verwagtinge van die produk en uiteindelik hul tevredenheid met die produk wat aangekoop is.

Tot dusver is baie min navorsing wat konsentreer op die spesifieke probleme wat deur Internet kledingverbruikers ondervind word, gedoen. Wanneer kledingitems aangekoop word, is waargenome kwaliteit 'n belangrike faktor wat keuses en besluitneming beïnvloed. 'n Gids om kwaliteit visueel te beoordeel behoort dus van waarde te wees, veral vir die verbruiker wat sy/ haar aankope op die Internet doen.

Die doel van hierdie artikel is om die konsepte verwant aan verbruikersbesluit-neming en koopgedrag in oënskou te neem, soos dit in bestaande modelle gebruik word. Die waarde van 'n gids vir die beoordeling van kwaliteit word ook aangedui. Die stappe wat gebruik is om die konseptuele raamwerk te ontwikkel en die verskillende fases vir die voorgestelde navorsing oor die ontwikkeling en evaluering van 'n gids vir die beoordeling van kwaliteit word bespreek.

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## INTRODUCTION

Globally consumers are becoming increasingly demanding in what they look for in textile products and increasingly discerning in what they find acceptable (Kadolph, 1998: 12). Due to the ever-growing global market, a wider variety of products have become available from different sources. One of these is the relatively new experience of purchasing clothing textile products online. Understanding what creates a satisfying customer experience becomes crucial as more so-called e-retailers promise their customers that online buying experiences will be satisfying. In spite of this, very few studies have been done to examine what factors make consumers satisfied with their e-retailing experiences (Szymanski & Hise, 2000).

An extremely competitive marketplace has been created by the exponential increases in online shopping and the number of retailers selling online. To make e-retailing sites more competitive, research in the field of cognitive computing is increasing. Cognitive computing is an emerging field of inquiry that draws on principles of behavioural, cognitive, computer, and related sciences for insights into consumer shopping behaviour (Szymanski & Hise, 2000). Although cognitive computing has the potential for providing critical insights into e-retailing, the field is still in its infancy. An aspect that has not yet received much attention is e-satisfaction. Although consumer satisfaction has been researched and well documented in the classical context, very little systematic research into the determinants of e-satisfaction has been conducted. The findings of research that focuses on the problems of online purchases of textile products could, however, add value to strategies designed to augment e-satisfaction and guarantee that e-customers will be satisfied (Szymanski & Hise, 2000). Research in this area could also supply insights into the development of a guide for evaluating quality visually, which could assist consumers when making decisions concerning the online purchase of clothing textile products. In this respect, a cognitive approach could be used effectively as it relates to consumer behaviour (Baron & Byrne, 1997).

As research on the online clothing consumer's purchasing behaviour is still in its infancy, very little is known about the unique problems encountered by the online consumer of clothing textile products. This is especially true for the South African online consumer. These consumers do not have the advantage of actually seeing and handling the products, consequently their judgement of certain characteristics is limited and this could influence their choices, expectations and eventually satisfaction with online products. Although

research regarding the female Internet user's clothing behaviour and her decision to purchase online is starting to increase, the focus has been on the acceptability, use or preference of the Internet for clothing purchases (Dancausse & Cassill, 2000; Jackson, *et al*, 2000; Manikowske & Bastow-Shoop, 2000). A limited amount of research has been done on consumers who have purchased apparel by mail order (catalogue shoppers) where aspects such as perceived risks, shopping orientations, demographics, motivations, information sources and personal characteristics have been investigated (Shim & Drake, 1990; Kwon, *et al*, 1991; Shim & Kotsiopoulos, 1992; Jasper & Ouelette, 1994). One would probably also be able to relate these aspects to the online consumer of clothing products.

Forsythe and Chun (2000) explored the gender differences in online behaviour and Lee and Johnson (2000) as well as Shen (2000) have looked into the difference between Internet clothing purchasers, browsers and non-purchasers concerning various aspects. General research topics regarding the online consumer included a social cognitive analysis of the virtual community (Granitz & Ward, 1996), studies of consumers' behaviours, attitudes and demographic characteristics (Fischer, *et al*, 1996; Tambyah, 1996; Forsythe & Shi, 2000; Kwon & Fairhurst, 2000; Watchravesringkan & Shim, 2000) as well as consumers' perceptions of the World Wide Web (Geissler & Zinkhan, 1998). Other interesting research on consumer satisfaction, consumer freedoms, identities and experiences has also been conducted and adds insight to online consumer behaviour (Sen, *et al*, 1998; Shih, 1998; Venkatesh, 1998; Burton, 2002). Very few research articles could be traced that were specifically aimed at the problems that the online clothing consumer encounters regarding the disadvantages of not being able to actually see, touch/ handle or try on the garment before making the decision to buy. Research has been done on aspects like colour quality and reproducibility of texture, pattern, drape and the like (Beck, 2002; Ehmann, 2000:). Also, very little is known about the online consumer's decision-making, expectations and use of this new medium. It is important to investigate online purchasing behaviour, perceptions, expectations and satisfaction from the consumer's viewpoint (Zeithaml, 1988; Goldsmith & McGregor, 2000).

In view of the need for more focused research in terms of the behaviour of online consumers, as well as the limitations of the Internet to supply the online consumer with clear visual images, the value of a guide for evaluating quality visually, that can aid the online consumer of clothing textile products in the decision-making process, is evident. This could also help to fulfil online consumers' expectations and ensure greater satisfaction with online purchases. Research is therefore suggested for determining what intrinsic cues related to clothing textile products are used when consumers purchase clothing. These cues will be used to develop a guide for assessing quality visually.

The purposes of this article are firstly to provide a brief review of the literature where concepts related to decision-making and buying behaviour, as used in existing models, will be discussed. Secondly, the value of and aspects pertaining to a guide that can be used to assess quality visually will be pointed out. Thirdly, the compilation of a conceptual framework for proposed research on the development and evaluation of a guide will be discussed and lastly the main stages of the proposed research will be mentioned.

## LITERATURE REVIEW

### Consumer behaviour

Consumer behaviour can be defined as the thoughts, feelings, and activities (thus behaviour patterns) of consumers and the influences on them, which precede, determine and follow exchanges in the acquisition of need-satisfying products, ideas and services. (Du Plessis & Rousseau, 1990:11; Churchill & Peter, 1998: 142). This definition covers the consumer buying process as well as the forces that shape it. These forces include internal forces such as needs, past experiences, personality, learning and attitudes (Shiffman & Kanuk, 1991: 203; Shim & Kotsiopoulos, 1991; Bradley, 1995: 269; Bazerman, 2001) as well as external forces that include social, marketing, and situational influences (Churchill & Peter, 1998: 148).

For relatively expensive products and services, purchase decisions are the result of a detailed process that may include an extensive information search, brand comparisons and evaluations, and other activities. Other purchase decisions are more incidental and may result from little more than seeing a product prominently displayed at a discount price in a store. (Du Plessis & Rousseau, 1990:11; Churchill & Peter, 1998: 142).

In the case of clothing textile products various studies point out that the intrinsic properties such as the physical features of fabrics which include fibres, fabrics and finishes, rather than the extrinsic properties such as price, brand name, packaging and hangtag information, shape a consumer's perception of product quality, which has a pronounced effect on the eventual decision-making and buying behaviour (Zeithaml, 1988; Fiore & Damhorst, 1992)

### Concepts relevant to the consumer buying process

To get an insight into the social, psychological and business forces that influence purchasing behaviour, researchers have gone back to the behavioural sciences, particularly social psychology, to understand the complexities of consumer choice. Behavioural constructs such as personality, attitude and lifestyle, social-class culture, and the social situation can all contribute to a better understanding of the consumer and the choices that she/he makes (Foxall and Goldsmith, 1994: 24; Belch & Belch, 1998: 103).

Because of the inherent complexity in understanding consumer behaviour, models of the buying process have been constructed by various authors (Sproles and Burns, 1994: 75-76; Belch & Belch, 1998: 103; Churchill & Peter, 1998: 142) These models indicate the stages through which a consumer passes from becoming aware of a need for a product or service to the actual purchase of the product, and the eventual evaluation of the success of the purchase to determine if the product, or similar products, will be purchased again in the future. The social and psychological forces that shape the potential buyer's actions at each stage of the process are also evident in the models. The principal aims of these models are to predict future behaviour, based on the measurement of relevant variables, and the explanation of this behaviour in terms of theoretically relevant constructs (Lennon & Davis, 1989; Foxall & Goldsmith, 1994: 25; Sproles and Burns, 1994: 75-76). These concepts also help one understand the basic processes that might occur when consumers are confronted with fashion textiles at the point of sale (Sproles and Burns, 1994: 77).

The buying process begins with a recognised awareness or need for a specific product. A fashion product may be bought to impress someone else or to be part of a group (internal stimuli), or a clothing item could be bought for a specific occasion (external stimuli). When a need has been perceived, the inner drive to fulfil it is called *motivation*. What drives (motivates) the consumer to buy is an important aspect to consider when developing a quality assessment guide for the online consumer of clothing textile products. (Shiffman & Kanuk, 1991: 203; Bradley, 1995: 269; Churchill & Peter, 1998: 143; Bazerman, 2001; Shim, *et al*, 2001; Parsons, 2002; Schoenbachler & Gordon, 2002). Apart from fulfilling the basic need for protection, clothing has a strong social value and this should also be incorporated in an online quality assessment guide (Parsons, 2002).

When a need has been perceived and identified, the consumer may look for information about how to satisfy the need. The search for purchase information is regarded as a significant element of consumer behaviour. Information incorporated into a quality assessment guide could supply product information so that the consumer using the guide becomes more aware of basic product characteristics both through the written word, as well as the visual image of the product provided in the guide. In this way the consumer's perception of the product and its characteristics can be guided during this stage of information gathering. The focus now shifts to consumer cognition – in other words, the activities involved in perceiving the product and its characteristics, thinking about them, reflecting on the desirability of the product and its properties and, in general, understanding what the product is about (Foxall & Goldsmith, 1994: 49; Churchill & Peter, 1998: 145; Gershoff, *et al*, 2001).

Information about different clothing textile products can be obtained from different sources. Internal sources (prior purchase experiences and memory), group sources (family and friends), marketing sources

(eye catching web-page with easily accessed information or the possibility interactivity for obtaining more specified information), public sources (rating of a quality guide by a trusted and reliable independent organisation), or experiential sources (touching, feeling, smelling, hearing, trying on) can be utilised. The latter, excluding sight, is not available to the online consumer. It is therefore important that the information and visuals used in a quality evaluation guide for online consumers of clothing textile products are relevant, precise and of high visual quality to compensate for the lack of handling, smelling, seeing and trying on.

By evaluating alternatives, consumers try to identify which purchase will deliver the greatest value. This in turn means that benefits that are considered important are weighed against expected costs (Churchill & Peter, 1998: 146). Each person interprets physical and social stimuli differently to accommodate themselves within their overall view of themselves and the things they buy (Foxall & Goldsmith, 1994: 50; Bradley, 1995: 279 – 280; Churchill & Peter, 1998: 146;). Once they have purchased a product, especially an expensive one or one with high social value (ie clothing), they evaluate their purchase and decide if they are satisfied. They may also experience cognitive dissonance, or second thoughts about their choice. Post-purchase evaluation is the stage at which consumers determine whether they received value; if they conclude they did (are satisfied), they may repeat the purchase. A guide for assessing quality visually should also address this aspect. Developers of websites have suggested that an interactive site, where consumers can be reassured after having made a purchase, should be considered. One way to achieve this is to create a chat room where customers can share good as well as bad experiences or to use interactive features that supply extra information or make recommendations concerning a purchase (Ross, 2000; Xia & Sudharsen, 2002).

The consumer buying process includes different types of decision making which ranges from routine to limited to extensive decision-making. Consumers are most likely to use extensive decision-making when the product is important, the price is high, the product is complex or unfamiliar, and there are many brands to compare (Churchill & Peter, 1998: 148). Once again a guide for assessing quality visually could expedite the process of decision-making for online consumers of clothing textile products. Interactive features that form part of the guide, for instance intelligent agents that make purchase recommendations could assist the online consumer when weighing different purchase possibilities (Xia & Sudharsen, 2002).

#### **THE RELEVANCE OF A QUALITY EVALUATION GUIDE FOR THE CONSUMER OF CLOTHING TEXTILE PRODUCTS**

##### **A quality evaluation guide for clothing textile products**

As decisions concerning the purchase of clothing are, more often than not, made at the point of sale, a quality assessment guide could help the consumer when considering alternatives prior to actually making a decision. To be able to develop a guide for assessing quality visually, it is important to know what aspects consumers define as quality when purchasing clothing textile products.

During the 1980's a lot of research pertaining to quality was done. There were also many debates amongst researchers as to what quality constitutes and how it should be measured (Zeithaml, 1988; Teas, 1993). It is, however, clear that there are different views of quality, which are interpreted differently by marketers and consumers. Marketers are inclined to view quality in terms of performance, workmanship and serviceability standards, and according to Zeithaml (1988) are of the opinion that this is how their customers also perceive quality. Consumers, on the other hand, also included sensory and emotional/ expressive aspects when describing what they perceive as quality in clothing textile products (Zeithaml, 1988; Fiore & Damhorst, 1992; Abraham-Murali & Littrel, 1995; Hines and O'Neal, 1995).

Other authors categorise quality as product-based quality (referring to specific product attributes) and manufacturing-based quality, which involves conformance to manufacturing specifications and standards (also referred to as actual quality). To others these categories are the same as perceived and actual quality (Zeithaml, 1988). Other aspects related to the consumer's perception of quality include product familiarity, prior experience with a specific product or brand, product price, the consumer's level of education as well as personal values (Abraham-Murali & Littrell, 1995; Hines & O'Neal, 1995).

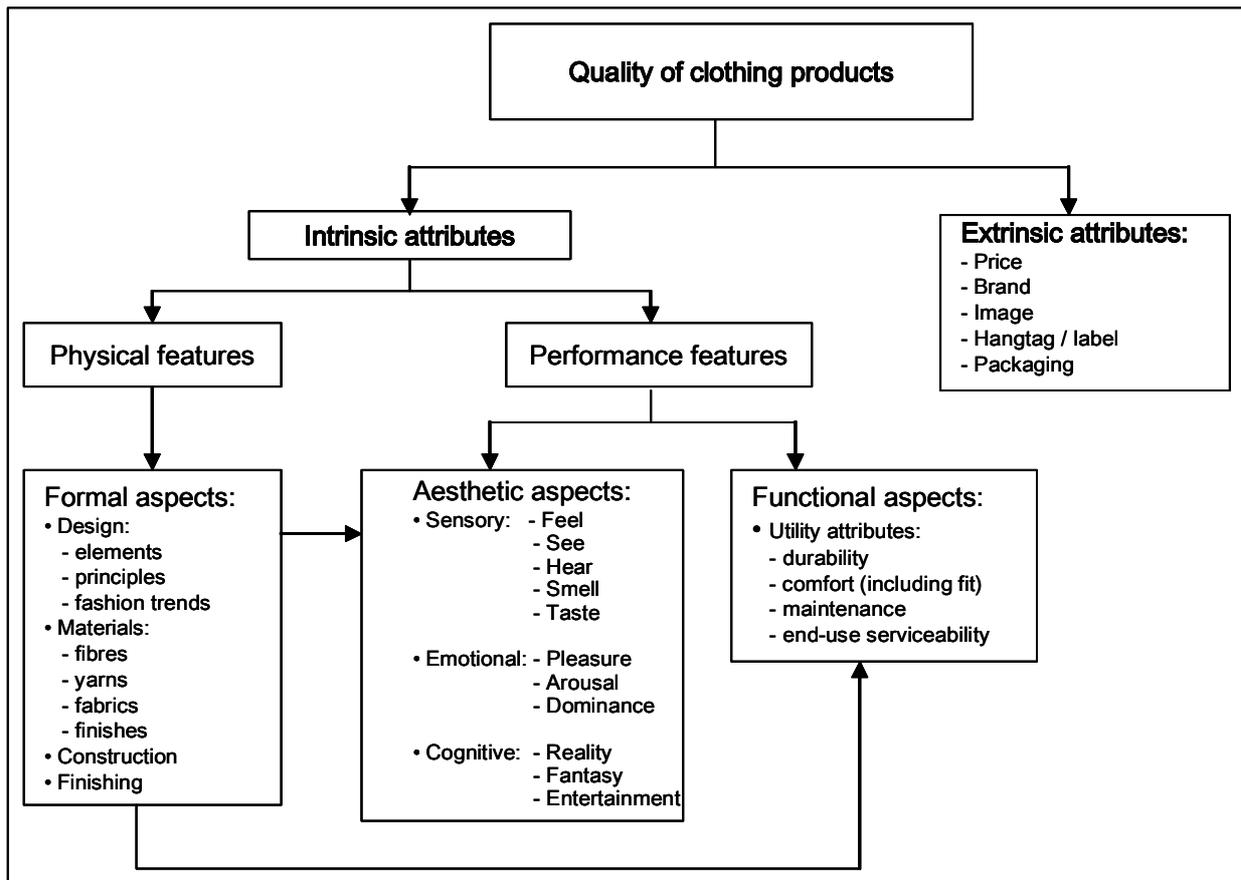
All these aspects would have to be considered when developing a guide for consumers to assess quality visually. To induce consumers to use this guide, their attention would have to be attracted by an eye-catching packaging. This would mean that images of contemporary fashions (and accessories) with wording that captures interest and induces the buyer (browser) to access the guide would have to be considered. Another important aspect would be to use high quality images so that the consumer can form a clear idea of the products. As one of the problems an online clothing consumer has, is that she/he cannot fit the garment, an attempt will have to be made to enable her/him to choose a scanned image of the textile in different clothing products. In order to give a clear idea of how the products on offer would look when tried on, fabric drape would have to be indicated as well as different printed patterns and colour ways. By doing this, the lack of a sensory experience could be addressed. To accomplish all the above, an interactive click on/ remove function would have to be built into the guide. Concise descriptive information pertinent to the product as well as the use of so-called intelligent agents, that supply more product information, could assist the consumer in deciding when confronted with various products.

A guide that provides all these features could also add to the fun aspect of online buying and could serve as a reassurance when purchasing an article that the consumer cannot touch, feel or try on. This, in the end, could lessen the risk of dissatisfaction with online clothing purchases. Permission to link the quality assessment guide to retailers' web sites will also have to be obtained.

#### **DEVELOPMENT OF A CONCEPTUAL FRAMEWORK FOR RESEARCH ON THE DEVELOPMENT AND EVALUATION OF A GUIDE FOR THE VISUAL ASSESSMENT OF THE QUALITY OF CLOTHING TEXTILE PRODUCTS**

When developing the conceptual framework, the first step was to compile a diagram, representing the concept of clothing quality, to indicate what cues consumers use when assessing quality (FIGURE 1). For this study quality is defined as the extent to which the clothing textile product satisfies the consumer's expectations and includes both the physical and the performance features of the product. Brown and Rice (1998: 38), describe physical features of a garment as its tangible form and composition. The physical features include the design (garment plan), all the materials and other components used to produce the garment, the construction (stitches and seams used) and any wet processing used to finish the garment. All these physical features form part of the intrinsic attributes, which cannot be altered without changing the product itself. Performance features also form part of the intrinsic attributes and determine what standards the product can meet and how this benefits the consumer. Attractiveness is described as aesthetic performance, which usually satisfies the emotional needs of a consumer and includes the design elements, design principles as well as the current fashion trends. Functional performance on the other hand, refers to the product's utility and durability. Brown and Rice (1998: 39) describe utility as the usefulness of the product and how well it conforms to end-use standards. Features representing utility include garment fit, comfort, ease of maintenance and appropriate functioning for the intended end-use. Durability is seen as serviceability or the ability of a product to retain its structure and appearance after wear and care. A garment's durability is determined by the abrasion resistance, tear resistance, seam strength, dimensional stability (shrink resistance) and colour-fastness.

From the point of view of the consumer, extrinsic attributes, such as brand name, price, hangtag information and packaging also play an important role when comparing alternatives. Only certain intrinsic quality attributes, regarding the physical features of textiles and their related functional (performance) aspects were, however, included in this framework, as they seem to have the greatest impact on garment selection at the point of sale (Eckman, *et al*, 1990; Abraham-Murali & Littrell, 1995).



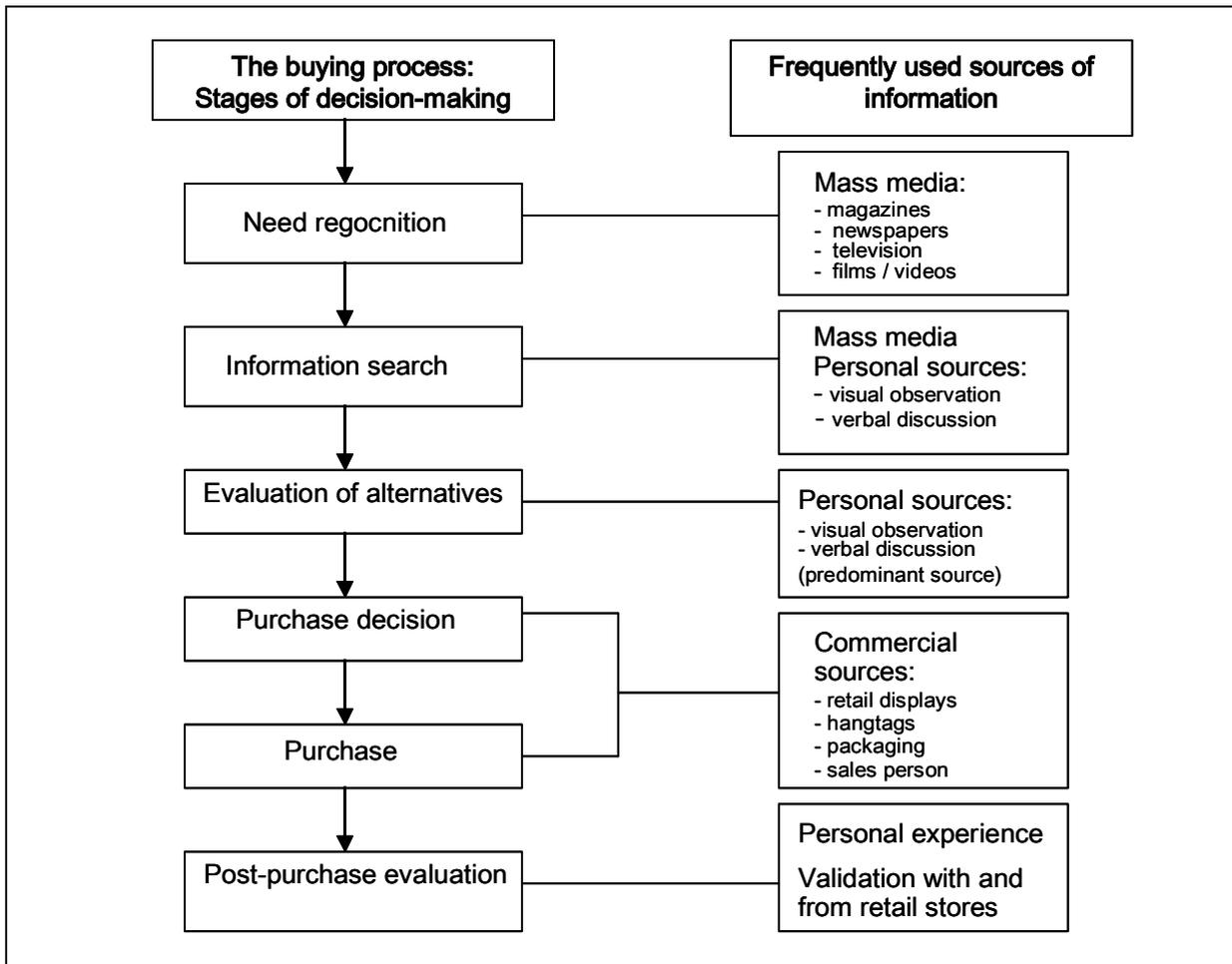
**FIGURE 1: THE DIMENSIONS OF CLOTHING PRODUCT QUALITY**  
(Brown & Rice, 1998: 38-39; Fiore & Damhorst, 1992)

From the review of literature it is clear that the intrinsic attributes can be used to determine the physical and performance features, or so-called quality of the textile. It is not clear how South African consumers experience and assess the quality of textile products. In this framework both the physical and performance features will be included. As the framework focuses on the assessment of the quality of textiles, only the so-called formal aspects (fibres, yarns, structures and finishes) will be used to represent the physical features of textile quality. Likewise, only the functional aspects of the performance features (ie durability, comfort, maintenance and end-use serviceability) will be included (see Figure 3)

The second step in the development of the conceptual framework, was to use existing models of consumer buying and decision making as presented in Sproles and Burns (1994:75-76), Belch and Belch (1998:103) and Churchill and Peter (1998:142) as point of departure. These models explain the buying process as one consisting of consecutive steps. The simplified diagram used in the conceptual framework was based on these models. According to Sproles and Burns (1994: 267) clothing consumers use different sources of information at different stages of decision-making. During the awareness stage (need recognition) mass media (magazines, newspapers, television) are the most

important sources. When actively seeking information (interest stage) both mass media and personal sources (visual observation and verbal discussion) are used. During the third stage, when alternatives are being weighed, personal sources seem to dominate, but commercial sources and mass media are also consulted. In addition to these sources, the online consumer is also confronted with information that appears on the screen when surfing the web. At the trial stage where the decision to buy is about to be made, commercial sources (displays, hangtags and packaging) are important. Personal satisfaction is the most important in post-purchase evaluation.

In the case of the online consumer the problem is to access and evaluate the information provided concerning the products offered. Here the main concern is to address pre-purchase expectations by making it possible for these consumers to make valid judgements concerning quality. Although post-purchase evaluation of the product remains important, one of the aims of developing and evaluating a guide for the visual assessment of quality is to overcome the shortcomings of online purchasing. A guide that aids in judging quality visually when seeking information and weighing alternatives prior to purchasing could, therefore, induce the consumer to consider both perceived quality aspects as well as the more concrete quality



**Figure 2: SOURCES OF INFORMATION USED DURING DECISION-MAKING**  
 (Sproles and Burns, 1994: 267; Belch & Belch, 1998: 103 ; Churchill & Peter, 1998: 146)

aspects, which many times are only evaluated by the consumer during use and care of the clothing textile product. If satisfaction could be enhanced by the use of the guide, this in turn would induce the consumer to use the guide when gathering information for future purchases. This could also have a positive effect on the post-purchase evaluation of products purchased on line.

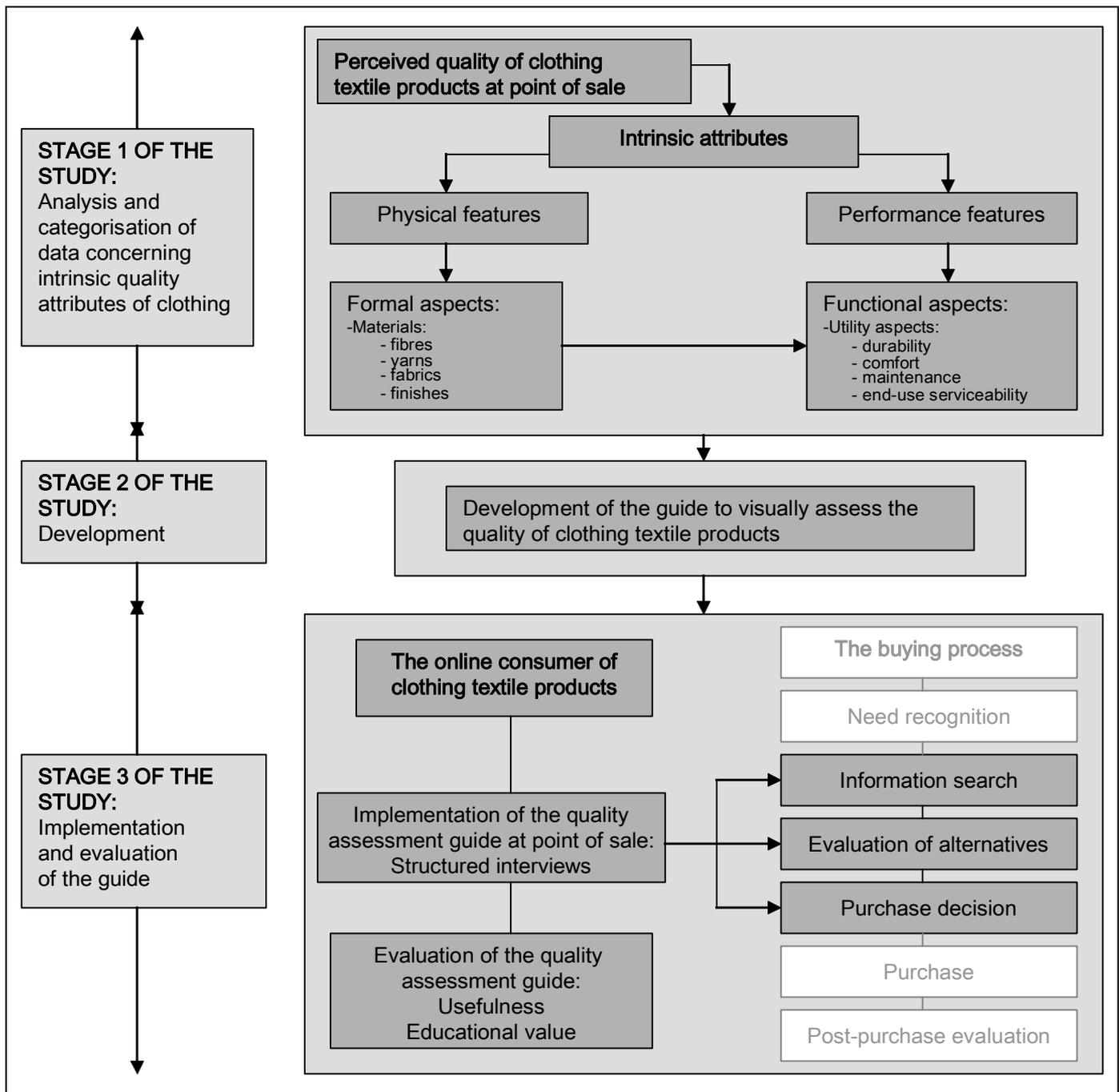
The two diagrams (Figures 1 & 2) were simplified and combined to form a conceptual framework for research leading to the development and evaluation of a guide for the visual assessment of quality. The different stages of the research are indicated in this framework (Figure 3).

The first stage will be to find out which intrinsic physical and performance cues are used by South African consumers for assessing the quality of clothing textile products. To accomplish this, a questionnaire consisting of questions that relate to the physical as well as the performance aspects of clothing textile products will be used. Secondary data will be obtained from studies done on the problems online clothing consumers encounter, studies done on consumers of mail-

order products as well as studies done on consumers in the brick-and-mortar environment. All these responses will be categorised by grouping the related cues (Figure 1) to give an indication of the cues used to assess quality of clothing when making purchase decisions. This information will be used to perform the second stage of the research, the development of the quality assessment guide based on the cues identified and research done on the development of successful material for use by online consumers. This guide will be pre-tested before being finalised.

The third stage of the research will be to use a structured interview in conjunction with trial testing of the guide by the selected online consumers when making decisions about clothing textile products offered on the Internet. The responses of the interviewees will be used to measure the success of the guide to assess quality visually and could serve as guideline for the improvement of the guide.

Although the guide for assessing quality visually will be developed specifically with the online consumer in mind, the information in the guide could also be adapted to a printed version that could assist those



**FIGURE 3: THE CONCEPTUAL FRAMEWORK FOR THE DEVELOPMENT AND EVALUATION OF THE VISUAL ASSESSMENT OF QUALITY**

consumers, who still prefer “brick-and-mortar” shopping, at the point of sale. By making consumers more aware of textile properties and increasing their knowledge of performance, they can, in the long run, be educated to be more discerning when comparing products. This could also contribute to greater satisfaction with products during use.

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