



Development of a socio-cognitive model for examining consumers' adoption of the Internet for the purchase of apparel

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1 Introduction

Research has shown that about 43% of South African Internet users have already purchased products by using the Internet

(Association of marketers [Asom] 1999:19). It has also found that the future success of the Internet will mostly depend on the extent to which current users will accept and use the Internet as a medium for their purchases, rather than using it merely as a communication and information medium (Citrin, Sprott, Silverman and Stern 2000:294). Therefore, the Internet serves as a virtual retail environment where exchange between consumers and retailers is taking place at a fast tempo (Granitz and Ward 1996:161).

Electronic retailing continues to grow in size and importance as increasing numbers of consumers buy on-line, and apparel purchases represent a significant portion of on-line purchasing (Goldsmith and Goldsmith 2002:89). Despite the rapid growth of the Internet population in the past few years, there still is a dearth of data about the decision making, perception and uses of consumers of this relatively new medium. As a result, much uncertainty remains regarding the nature of marketing activities that are most appropriate on the Internet (Maignan and Lukas 1997:346). The behaviour of the apparel consumers in terms of the on-line retail trade (e-commerce) has therefore not yet been sufficiently researched (Vrechopoulos, Siomkos and Doukidis 2001:142).

Research related to Internet usage has focused mainly on the medium, with less attention given to the attributes and cognitive nature of the user (Bobbit and Dabholkar 2001:424) or the users' complex on-line decision-making behaviour. Because of the complexity of the decision-making processes of users and the attempts of marketers to develop a better understanding of their target market, there is a need for studies and models that focus specifically on the cognitive and social contexts of consumer decision making (Granitz and Ward 1996:1). According to Kleindl (2000:150), it is therefore important to investigate the reaction of individuals towards innovation as well as their interaction with innovation. Therefore, the adoption of the Internet by consumers for purchasing serves as a key element in the growth of e-commerce.

The purpose of the research undertaken was to develop a conceptual framework that incorporates the social-cognitive aspects of consumer decision making, along with a consumer adoption theory that provides a deeper understanding of the process. The research also aimed to gain a better comprehension of the adoption of the Internet by consumers for purchasing apparel, as well as the factors that influence the decision on whether or not to purchase via the Internet.

A socio-cognitive model for the studying of user adoption of the Internet in purchasing apparel has advantages for both marketers and retailers. It especially enables a better understanding of the factors that influence the decision making of and adoption by consumers of on-line purchasing. Vrechopoulos et al. (2001:142) hold the view that the comprehension of retailers and marketers of their target markets and their understanding of the procurement process can lead to a multitude of benefits. Benefits could include 'the ability to assist managers in their decision making, availability of a knowledgebase from which marketing researchers can analyse their consumers, and assistance to the consumer in making better purchase decisions' (2001:142). In addition, such a model could better assist in meeting and satisfying the needs of consumers in a particular market segment.

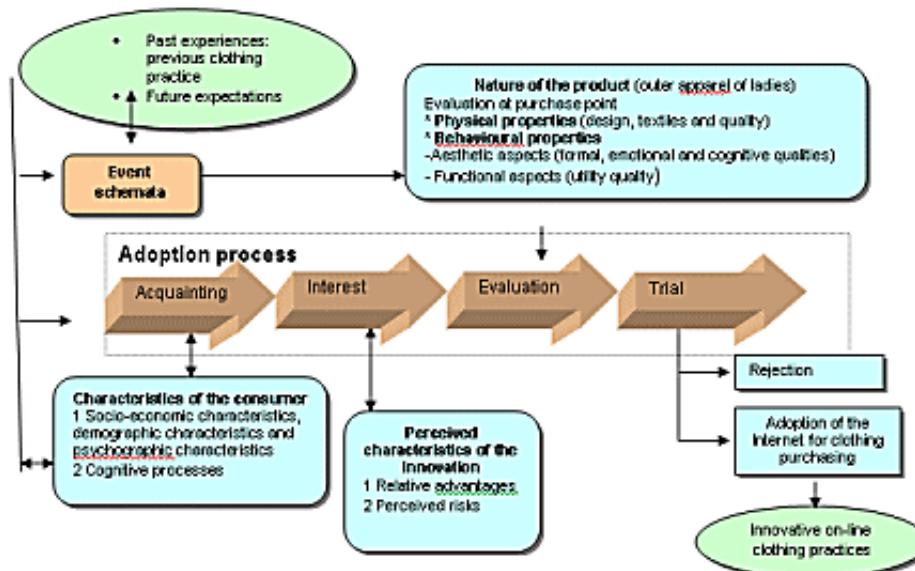
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2 Schematic conceptual framework for this research

As this research dealt with the adoption of the Internet by consumers for apparel purchasing, the innovation decision-making process model of Foxall and Goldsmith (1994:43) and the enhanced adoption process model of Schiffman and Kanuk (2000:425) were used as the starting point for developing a schematic conceptual framework. Socio-cognitive aspects such as the previous experiences of consumers, event schemata and expectations from the social-cognitive approach were used and integrated with the existing models of Schiffman and Kanuk, and Foxall and Goldsmith. Based on the foregoing, a schematic conceptual framework is presented in Figure 1. The framework attempts to show how the different stages of the consumer adoption process of the Internet for apparel purchasing evolve. The role of the socio-cognitive realm in this process is illustrated as well as the important

determinants that influence the adoption process, namely the nature of the innovation, product (apparel) and consumer.

Figure 1 Schematic conceptual model (Schiffman and Kanuk 2000:42; Foxall and Goldsmith 1994:43)



A socio-cognitive approach to the study of consumers' apparel purchasing behaviour tries to understand the behaviour of individuals in terms of the effect of external and internal factors on the cognitive processes of an individual. It can be successfully applied in developing a framework for studying the adoption of the Internet by consumers because their acceptance of the Internet is the result of cognitive or internal processes, which are influenced by external and internal stimuli (Sproles and Burns 1994:69; Martinez, Polo and Flavian 1998:324; Kleindl 2000:151). According to Foxall and Goldsmith (1994:43), it appears that the acceptance by the consumer consists of various successive phases, each of which is influenced by various external and internal factors. Foxall and Goldsmith (1994:43) further maintain that the previous practices and experiences of consumers direct their acceptance of a new innovation. The characteristics of the consumer and the innovation also affect the adoption process.

Various authors recommend the use of a particular theoretical reference model or perspective when studying the behaviour of individuals, more specifically their apparel purchasing behaviour (Nagasawa, Hutton and Kaiser 1991:117; Charon 1998). Lennon and Davis (1989a; 1989b) and Kaiser (1991:25–26) bear out the applicability of a socio-cognitive perspective for studying the apparel purchasing behaviour of individuals. Apparel purchasing behaviour refers to all decisions, activities and processes related to an individual's personal appearance. This includes searching, deciding, accepting, planning, purchasing, using and after-sale using of apparel by consumers (Kaiser 1990:5). A socio-cognitive perspective provides, in the first place, a handy instrument for researchers and marketers to study internal cognitive processes of consumers that relate to consumer behaviour such as the forming of events schemata. Secondly, a cognitive perspective fits in well with theories about behaviour of apparel consumers, because the theories about consumer behaviour also focus on the description, understanding and prediction of the behaviour of individuals (Wilkie 1990:6).

The socio-cognitive perspective from which the framework was developed originated in the socio-psychological sphere where, according to Shaw and Costanzo (1982:4), it concerned the scientific study of the behaviour of individuals as a function of social stimuli. According to Nagasawa et al. (1991:121), this is based on specific assumptions and highlights certain key concepts. For the purposes of the development of this model the following are seen as relevant:

- Humans are rational, thinking beings, trying to make sense of their social surroundings. This implies that individuals are active beings that receive information, process it and use it to solve problems and make decisions. Consumers confronted with the Internet will be cognitively involved in the solution of problems. In addition to this, they will process, interpret and use the available information about Internet purchases before they decide to use this medium for their apparel acquisitions.
- Individuals receive, organize and process external stimuli by making use of internal processes. They use these stimuli to interpret and understand the social and/or commercial world with which they are interacting, and try to understand their own reactions and behaviour. To achieve this, they develop cognitive structures (Kaiser 1990:252) that form part of a network of thought processes that enable them to react to stimuli from the marketplace.

People's use of cognitive structures, such as schemata to organize knowledge involving a concept or stimulus, as well as the relationship that exists between cognitive structures (Fiske and Taylor 1990:98), is emphasized. Events schemata may be defined as structures for the evaluation of, in particular, new information or situations (Delong, Minshall and Larntz 1986:17). It is regarded as abstract and generic structures, which in this case contain specific rules about expectations and purchasing situations. Events schemata are formed through the socializing of consumers, through personal experience in the shopping situation as well as in the purchasing activity and by becoming part of the consumers' memory framework for future use. Event schemata are thus a direct result of consumers' past experiences or previous purchasing practices.

Yoh and Damhorst (2000) determine that the consumers' previous experiences with the Internet play the most important part in their intention to purchase apparel on-line. It is therefore important to give attention to how the Internet addresses and satisfies the consumers' expectations concerning the purchasing of apparel. In addition, the expectations, assumptions and generic pre-existing knowledge of consumers enable them to predict and control situations.

Expectations may be described as the anticipation that an event will occur, multiplied by the reward (profit or loss) (Gouws, Louw, Meyer and Plug 1984:322). Schemata create expectations that can influence the consumers' interpretation of information (Delong et al. 1986:17). The Internet as a medium for obtaining apparel, as well as the purchasing facilities of the Internet, are involuntarily assessed within the model of the fixed events schemata of the consumer. Baron and Byrne (1991:119) hold that when people have a specific expectation how they will react in a new situation or with a new stimulus, the expectation will direct their perceptions and feelings.

Schematic reconstruction usually takes place in the presence of new information (Neuhauser and Morganosky 1994:31). When consumers are confronted with the acceptance of a new purchasing situation such as procurement of apparel through the Internet, it can be expected that a schematic interaction will occur between the schemata of the consumers' previous purchasing practices and that of on-line purchasing. If consumers feel uneasy with the new Internet apparel-purchasing practice, which does not coincide with their previous purchasing practices, they will in all probability reject the Internet. If the new apparel-purchasing practice measures up to the consumers' expectations, such as better benefits compared with the previous practice, then consumers would tend to adapt their previous apparel-purchasing practices and accept the Internet when purchasing.

A closer look at the development of a socio-cognitive framework for the studying of consumer acceptance of the Internet for apparel

purchases is necessitated. Rogers (Sproles and Burns 1994) identifies the process of acceptance by the consumer as a complex process that takes place over a period of time. The acceptance process consists of stimuli, interpretation and response. The consumer's interpretation of the stimuli is influenced by and made in terms of previous experiences and future expectations (Bradley 1995:269; Schiffman and Kanuk 1991:577). When a new innovation such as apparel purchasing through the Internet becomes available, consumers embark on a process of deciding whether to make use of such a practice or not. This process consists of acquainting or awareness, interest, evaluation and trial stages.

During the acquainting or awareness stage, consumers are exposed to a new apparel-purchasing practice. The consumer is aware of the new form of purchasing, but does not have sufficient information and knowledge about it. At this stage the consumer's characteristics play a significant part. The various characteristics of the consumer affect the consumer's decision to move to the next stage.

The interest or persuading stage entails the consumer's quest for general and specific information about the new practice of apparel purchasing. The consumer is specifically looking for information that relates the innovation with his or her previous apparel-purchasing practices. During this stage, the consumer primarily uses the relative advantages and perceived risks of the innovation to convince him or herself about adoption.

In the evaluation and trial stage, the consumer attempts to relate the new apparel-purchasing practice to his or her present situation. A cognitive trial and error process occurs. The cognitive testing and evaluating of the practice includes the interpretation of the stimulus in terms of previous encounters as well as future situations. During this stage, the nature of the product plays an important role due to certain properties that must be physically evaluated by the consumer. According to Rogers (1995:171-172), consumers will partake in this trial stage to determine the usefulness or value of the innovation in their own situation. Uncertainty still exists in terms of the consequences of this new idea or practice that the consumer is about to undertake. With on-line apparel purchases, this stage could cause problems because consumers are unable to physically evaluate apparel items to reduce the perceived risk. During this stage, the nature of the product plays an important part because it has certain properties that must be physically evaluated by the consumer. In case the consumer does decide to attempt the new apparel-purchasing practice, it will contribute to the adoption of the new apparel-purchasing practice among other consumers.

It may be questioned whether such a socio-cognitive approach could be reconciled and integrated with the existing theory that forms the basis of the problem.

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3 Theoretical background and conceptualizing

3.1 Concept of innovation

Rogers (Sproles and Burns 1994:70) defines innovation as a product, an idea, practice or object that may be regarded as new by an individual or a consumer group. It refers to any opinion, behaviour or aspect that differs markedly from existing examples. The concept of innovation in this research refers to the electronic or on-line purchasing of apparel by way of the Internet. In other words, it can be seen as the innovative behaviour shown by consumers in purchasing apparel through the Internet. The concept of innovation forms part of the diffusion of innovation theory, which focuses mainly on the spread of innovation through the community. The theory focuses on the acceptance process of consumers, which forms an important part of the model.

According to Martinez et al. (1998:324), the diffusion of innovation theory has already been applied successfully by various

disciplines to study aspects about the acceptance of something new. It was successfully used by authors such as Sproles and Burns (1994) and Brannon (2000) when studying acceptance and decision making by consumers. In addition, Goldsmith and McGregor (2000:126) hold the view that the diffusion of innovation theory makes it possible for marketers to form a better idea from a consumer's perspective on how readily consumers will accept the Internet for on-line apparel purchases. It also makes it possible to better explain and understand aspects such as consumer perceptions and satisfaction.

Sproles and Burns (1994:69), Kleindl (2000:151) and Martinez et al. (1998:324) hold that various external and internal factors of the consumer influence the acceptance of an innovation. According to Kleindl (2000:151), the acceptance of an innovation is influenced by external factors such as the nature of the innovation, the nature of the competing environment and the marketing process. Furthermore, it is influenced by internal factors such as the nature of the innovator. These factors can therefore lead to early, late or no acceptance of the innovation (Sultan and Henrichs 2000:388).

This research takes the consumer's viewpoint in which the nature of the innovator is an important part of the focus. Then the article focuses on a specific product, namely apparel, as well as on a specific medium for the acquisitioning, namely the Internet. For the purposes of this article only, the nature of the innovation, the consumer and the product were identified as the most important factors and were consequently studied in the literature.

3.2 Nature of the innovation

The nature and properties of the innovation are some of the most important factors that influence a consumer's acceptance process. The nature of the innovation goes hand in hand with the degree of newness that it provides for the consumers. According to Kleindl (2000:153), the consumer's acceptance of an innovation depends on two aspects, namely the degree of behavioural change expected from the consumer to be able to use the innovation and the degree of newness of the innovation, which is in direct relation to the learning curve required to enable the consumer to make use of the innovation.

According to Sproles and Burns (1994:71), the consumer's acceptance or rejection of the innovation is further affected by his or her perception of the properties of the innovation. The five properties of an innovation are the relative benefits, compatibility, complexity, verifiability and visibility of the innovation. In the opinion of Wilkie (1990), a sixth property that is also relating to consumer behaviour could be added, namely the perceived risk.

In terms of the aims of this study, the six elements are not all of the same importance or applicable to the same extent. The compatibility, complexity, verifiability and visibility of the innovation are related to the acceptance of the Internet in terms of its use. Relative benefits and perceived risks are important properties related to the Internet as a purchasing medium for apparel and the type of product to be acquired and therefore the relative benefits for the consumer and the perceived risks are considered to be relevant and are discussed in detail.

3.2.1 Relative advantages

Relative advantages are advantages that the innovation has in relation with existing alternatives (Schiffmann and Kanuk 1990:656; Sproles and Burns 1994:71). According to Whiteley (2000:155), the acceptance of the Internet depends on the consumer's perception of the benefits attached to the innovation. Authors such as Hawkins, Best and Coney (2001:251), Kleindl (2000:156) and Sproles and Burns (1994:71) contend that consumers are only willing to make any behavioural changes if more satisfaction is derived from purchasing on the Internet as compared to previous purchasing practices.

The Internet is known for its effectiveness regarding the saving of time (Hanson 2000). For the time-poor consumer, the maximum output for the minimum time and effort can be seen as an incentive to buy on-line. According to Kolesar and Galbraith (2000:426),

the following advantages of on-line purchasing are also apparent:

- The speed at which information can be acquired
- The comparison of prices
- The wide spectrum of products that can be evaluated.

In a survey about consumers' intention to buy apparel on-line, Yoh and Damhorst (2000) found that consumers were hesitant to use the Internet for apparel purchasing. The consumers were only willing to use the Internet for apparel purchases if there were certain incentives. Incentives or relative benefits indicated were free and easier product returns or exchanges, innovative functions (three dimensional view of garments on own body) and ensured credit card safety.

Other relative advantages regarding on-line buying practices that were identified were:

- a wide variety and assortment of products on the Internet (Hanson 2000:372–373; Szymanski and Hise 2000);
- more convenience in terms of comparison of alternatives and orders that can be made from any destination (Kolesar and Galbraith 2000:426);
- saving of time; and
- home deliveries (Kleindl 2000:155–156; Whiteley 2000:156).

3.2.2 Perceived risks

The concept 'perceived risks' refers to the consumer's anticipation of negative results (Schiffman and Kanuk 1990:655). Schiffman and Kanuk (1990:180–181) distinguish between financial, social, functional, physical, time and psychological risks. Consumers experience risks especially when they have little or no experience of the specific innovation, product or manner of purchasing.

According to Schiffman and Kanuk (1990:182), the consumer's degree of risk is affected by the purchasing situation. Consumers experience a higher degree of risk in terms of non-shop retailers, such as telephone, postal and catalogue orders (Schiffman and Kanuk 1990:180).

The perceived risks of consumers pertaining to on-line apparel purchases include the safety of the transactions, correct information about the products (Whiteley 2000:150), unknown quality of products, fitting, size, originality of apparel (Goldsmith and McGregor 2000:124; Schneider and Perry 2000:147) and policy about exchanges and returns (Levy and Weitz 2001:360). Sproles and Burns (1994:74) indicate that these risks are implied by the properties of the innovator or the product. The specific properties of apparel items could contribute to further perceived risks (financial, social, functional and psychological) in the acceptance of the Internet by consumers.

For consumers to eventually accept the Internet for apparel purchases, it is necessary for marketers to decrease the perceived risks in terms of on-line apparel purchases. This presupposes an understanding by marketers of the decision-making process of consumers as well as their perceptions and expectations about these risks.

3.3 Nature of the product

According to Kaiser (1990:5), the construct apparel refers to 'any tangible or material object connected to the human body'. This includes items such as long or short pants, skirts, dresses, shirts, accessories, jewellery, makeup and shoes. Sproles and Burns (1994:7) refer to apparel as the physically constructed items of fabrics that cover the human body, excluding jewellery, makeup, shoes or accessories.

In the consumer adoption model of Vrechopoulos et al. (2001:144), consumers' experience with and evaluation of the type of product, and in the case of this research apparel, is an important aspect of the consumers' decision to adopt the Internet for apparel purchasing. Furthermore, consumers' personal involvement with the purchasing of apparel is directly linked to the different dimensions of apparel (Haynes, Pipkin, Black and Cloud 1994). Apparel, among other aspects, consists of a physical, aesthetic, functional (Brown and Rice 1998:38) and an experiencing dimension (Haynes et al. 1994:23).

According to Brown and Rice (1998:38), consumers use two aspects of apparel to assess its quality. Consumers regard the physical properties such as the design, fabric and construction to appraise its quality. Secondly they make use of behavioural properties to determine the measure to which it will satisfy their requirements. Here it specifically pertains to the aesthetic and functional aspects of the item of clothing. The aesthetic properties of apparel refer to its attractiveness. It can be further subdivided according to its formal, emotional and cognitive qualities. Formal aspects refer to the use of designer elements and design principles in the clothing item such as line, colour, texture, balance, form and proportion. Emotional and cognitive qualities relate more to the satisfaction of the emotional and social demands, such as impressing others or being accepted by others. The functional aspects of apparel comprise suitability qualities that do not necessarily have to do anything with the appearance of the item, such as fit, comfort, instructions for the care, durability and the use potential of the item (Brown and Rice 1998:38–39).

The experiencing dimension of apparel ties in with all the activities associated with the evaluation of apparel items (Haynes et al. 1994:23). The assessment and evaluation of apparel specifically occurs at the point of sale, which with traditional clothing purchases occur in the store itself (Sproles and Burns 1994:267; Brown and Rice 1998:43). However, with on-line apparel purchases this could cause problems because consumers are not able to deal with clothing items as such. The inability to assess and evaluate clothing items physically through the Internet is therefore one of the more important risks that consumers may experience in terms of on-line apparel purchasing.

3.4 Nature of the consumer

The nature of the consumer is an important factor that affects the acceptance of an innovation. Peterson (1997:6) is of the opinion that the success of e-commerce depends rather on the consumer's acceptance of it than on the underlying properties of the technology as such.

Studies of consumer behaviour about experiences of innovators and late acceptors show that there is a marked difference in the social behaviour between innovators and late acceptors, particularly in terms of their socio-economic status and social affiliation (Foxall and Goldsmith 1994:39; Sproles and Burns 1994:72–76). Teo (2001:126) maintains that aspects such as demographic, socio-economic and psychographic characteristics of consumers play a part in the use and acceptance of the Internet.

Authors such as Schiffman and Kanuk (1990:529) and Hawkins et al. (2001:253-254) refer to the classification by Rogers (1983) of the acceptors of innovation, which refer to a sequence of categories that describe how quickly consumers will accept a new innovation. Acceptors of innovations are divided into five groups according to their specific socio-economic, demographic and psychographic characteristics (Schiffman and Kanuk 1990:529). The categories include the innovators, the early acceptors, the early majority, the late majority and the laggards. This typology is also accepted by Sproles and Burns (1994:87) for apparel consumers.

In many cases, professional consumers are seen as innovators because they fit in well with the innovators' profile. Innovators represent the relatively small group of consumers that are the first to accept a new innovation. They are regarded as the first 2,5% of the social system that will accept an innovation and consist of risk takers that can absorb the financial and social costs associated with innovations. They make use of other innovators as a reference group rather than their own peer group. They tend to

be younger and socially more mobile, and are distinctive because of their high educational levels (Schiffman and Kanuk 1990:529).

Midgley and Dowling in Martinez et al. (1998:325) hold that the nature of the innovator is to a large extent an abstract concept, which is a consequence of social and psychological factors. It determines the individual's reaction to stimuli. These factors relate to a socio-cognitive perspective, which focuses on the individual's internal cognitive processes. Consumers' event schemata and previous experiences are internal characteristics of the innovators that affect the acceptance of innovations (Schiffman and Kanuk 1990:524). According to Teo (2001:128–129), the perceptions of consumers regarding the use, pleasure and usefulness of the Internet plays a part in their acceptance of the Internet. Additional psychological variables that have a direct influence on the acceptance of the Internet by consumers for purchasing include the perception of consumers of the nature of the innovation and more specific perceptions and expectations in terms of the perceived risks and relative benefits adhering to the acceptance of the innovation (Eastlick and Lotz 1999:209–210).

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4 Conclusion

From the above discussion it became evident to the researchers that a socio-cognitive framework as a starting point can be meaningfully used when studying the acceptance of the Internet by users to purchase items of apparel. It also became clear that a socio-cognitive approach can be effectively reconciled with existing theories about the Internet as a new innovation for the purchase of certain products, in this case apparel, and enhances existing theories. This proposed framework is at present being tested in a study that deals with the acceptance of the Internet by adult professional women as a purchasing instrument for apparel products. It is, however, the opinion of the researchers that a socio-cognitive approach to the development of such a framework can be incorporated in the study of the adoption of a multitude of consumers to use the Internet as a purchasing instrument for a diverging variety of products and that such an approach can also be applied in studying other aspects concerning the use of the Internet by consumers as a purchasing instrument.

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