CHAPTER 5

METHODOLOGY FOR THE SECOND AND THE FINAL PHASES OF THE STUDY

5.1 THE DEVELOPMENT OF THE TEXTILE ASSESSMENT GUIDE AND MOCK WEBSITE (Second phase of the study)

The categorised data of the first phase of the study as well as information obtained from the review of literature was used to develop the quality assessment guide. Guidance was sought from an expert at the Information Technology department (UP) who is familiar with the development of interactive material for computer/web pages and knowledge was also obtained in a workshop on web design as well as from an online tutorial on the application of FrontPage 2003 (Microsoft Office training). The guide was assessed according to standard guidelines for development of an interactive web page and then pre-tested for clarity of instructions and ease of use before presenting it to the sample population for testing.

All the relevant information from the questionnaires, as well as insight obtained through a thorough review of relative literature, was used when designing the mock website and textile quality assessment guide.

Designing a website takes time and effort – there are a variety of aspects to consider that all have an influence on the design. Many of these problem areas could be circumvented, as the website for this study, was not designed for use on the World Wide Web or even on the Intranet of the University of Pretoria. The aim was to design a website that was copied to compact discs for use in the computer laboratory of the Department of Consumer Science at the University of Pretoria.

Aspects pertaining to any website were taken into consideration. These aspects include clear and concise information, but comprehensive enough to

give consumers proper information of the content, as well as clear visual material. A consistent navigation structure is also important throughout – users get frustrated if every page is drastically different from the previous. Clutter should be prevented, and to avoid this, one must avoid using too many interface elements – flashing banners combined with moving images, click-on images, sounds, buttons, and text links could be too difficult to comprehend if all were used on one page (Song & Zinkhan, 2003; Dept. of Information Technology, University of Pretoria, 2004). It is also advisable to fit the information regarding a certain aspect (i.e. tops, or skirts, etc.) onto one page – this prevents long scrolling that also irritates users. Using the correct font and case is also important – the sole use of uppercase letters makes reading on screen difficult. Text should also not be underlined for emphasis, as underlining is usually used to indicate hyperlinks; bold text or a different colour is preferable. Lighter colours should be used for the background and darker colours for the text – dark backgrounds with white text place more strain on the eyes (Dept. of Information Technology, University of Pretoria, 2004). It is obviously also very important to check for grammatical and spelling errors. It is also advisable to keep sentences short.

Technical aspects that could have an effect on speed are the size of the graphics and the resolution and number of colours used. GIF and JPG files are the best for pictures – the format that produces the smallest file size will allow the page to load faster (Dept. of Information Technology, University of Pretoria, 2004).

The literature consulted (Huizingh, 2000; Song & Zinkhan, 2003; Dept of Information Technology, University of Pretoria, 2004) suggests certain criteria for creating a website. First one should determine goals and decide who the intended audience will be. The intended audience will also determine which information will be included. Then decisions should be taken how to organise this information. It is best to plan on paper first; this helps with the eventual layout. The links to other pages should also be pre-planned. Although it was not the aim to design a retail website where products could actually be purchased, it was important to plan and design a mock website that complied

with all the basics necessary for a functioning website. This meant that all pages had to be linked correctly so that the respondents could access the information supplied in the guide with ease.

Before attempting to plan and develop the website and consumer textile guide, the researcher attended a course in web page design (Microsoft FrontPage). After planning the content and layout of the website and textile guide Microsoft FrontPage 2003 was used to design and develop the website. The following steps were followed.

- Photographs of fashionable, but classic, styles for formal day and casual wear were scanned and used for the website. This was to cater for the quite large age variation (25 – 40 yrs) of the sample.
- The home page was designed first and then the pages with different garment types (tops, skirts, pants) and hyperlinks were created to interconnect the different pages. Every garment was linked to the textile assessment guide.
- The results of the first phase of the study were used as guideline to compile the guide with relevant textile information.

Fabrics used for the garments, which were chosen for the website, were linked to information regarding their properties during wear and maintenance. The results of phase one were used to determine which aspects to include. Where necessary, textile terms that might be confusing were explained in simple terms.

Properties covered in the textile guide were linked to the properties consumers use (or don't use!) for assessing quality (results of phase one). The textile properties judged to be most helpful when making purchase decisions were (in order of importance): properties that would affect performance during care, those that would affect performance during wear, followed by fibre properties and the influence of special finishes (Table XVI and Figure 16, Chapter 4). These properties were all emphasised in the online guide.

As it seems as if many consumers judge garments on appearance and comfort (Tables VI a and VI b and Figures 6 and 7, Chapter 4), special attention was also given to describe the style and fabric properties alongside a slightly enlarged image of the garment to give online buyers a better idea what to expect. Cues used for assessing durability, comfort and ease of maintenance were also addressed in the guide.

For the guide various options were considered. An attempt was made to use symbols to represent specific textile properties. As it was difficult to obtain or to design a set of symbols that would be universally understood, another route was followed. After studying the literature and tips on web page design, the researcher decided to use simple descriptions and explanations to indicate the presence of a textile property or to explain fabric drape and hand or the effect of certain finishes.

The website and guide were pre-tested:

- The website was tested to see if all technical aspects were attended to, if the hyperlinks worked smoothly, and the ease with which the textile guide could be accessed
- Peers (with an expert knowledge of Textiles and Clothing) were asked to use the website and fill out the accompanying questionnaire. They were asked to make suggestions for the improvement of both the website and the questionnaire.

These suggestions were used to make a few adaptations. One of the adaptations was to add a scale, which indicated how the fabric hand of each garment used in the guide would compare to chiffon (on the sheer side) and denim (on the heavier side). These two fabrics were used as it was felt that most people would be familiar with the hand and appearance of these two fabrics. Although knits were used for some garments, the same scale was used for all garments. The mock web pages were then copied to compact discs so that the guide could be loaded onto the computers in the computer laboratory of the Department of Consumer Science at the University of

Pretoria, ready for testing by the research sample. The respondents also had the option to receive a CD with instructions to complete on their own computers in their own time.

5.2 CHOICE OF THE RESEARCH SAMPLE FOR PHASE THREE

5.2.1 Sample selection for the third phase of the study

For this part of the study, the sample once again consisted of female career women who purchase or intend to purchase apparel online. As the number of consumers who purchase apparel products from the Internet is still limited, non-probability sampling was once again implemented. On a suggestion by the statistical consultant the age range for respondents was enlarged to include ages 23 and 24 as well as 'over 40' respondents. A total of 200 questionnaires were returned. Purposive or judgemental sampling was recommended, as members of a specialised population were used in this study (Neuman, 2000:198).

The snowball sampling method was also used for the last phase of the study. This method of sampling is appropriate, as it is an acceptable method to use when members of a specific population are difficult to locate. As still relatively few South African consumers purchase apparel on the Internet, and few seem to have full access to the Internet (at work and at home) this was judged an appropriate sampling method for this part of the study.

As this sampling technique results in samples of questionable representative-ness, they are primarily used for exploratory studies, as is the case with this study.

For these respondents to be included in the study, they would have to comply with the following criteria:

Criterion	Justification
Respondents must be female	Female Internet buyers are an increasing force in this consumer market (Anon., Nov. 2001)
Anybody from 23 to 40 and over*	As the number of South African consumers who use the Internet to purchase apparel is limited, the statistical consultant recommended that fewer restrictions should be specified.
Be employed in a full time or part time profession	Involvement in activities that save time is greater for woman in a profession than woman who are not employed
Have a post-school education (certificate, diploma or degree)	"Distance" buyers are often seen as risk takers associated with a higher level of education (Jasper & Ouellete, 1994:25).
Have Internet access on at least a weekly basis	Must be comfortable with using the Internet to be able to answer questions concerning the quality assessment guide.

* As the number of South African career women who purchase apparel on the Internet is still relatively small the statistical consultant suggested that the there should only be a bottom age limit to get as many respondents as possible to take part (Webcheck: Archive – online shopping trends, 2006).

The "Campus News" facility (Staff Intranet) of the University of Pretoria was used to request female staff members to take part in the research.
For participants who are not employed by the University of Pretoria contact persons, who fit the profile, were asked to get their co-workers to take part. They were supplied with the mock website on CD as well as a letter to explain the study objectives, what was expected of them, how they would participate, and how they could benefit from this study. Each CD was also accompanied by a set of instructions as well as web addresses of five different South African websites – they were asked to choose one of the five to compare to the mock website. The instructions and web addresses were also supplied in hard copy. The questionnaire was included on the compact disc and could be saved as a Word document, completed on computer and sent back via e-mail. Hard copies of the questionnaire were also supplied if requested.

5.3 THE CHOICE, DESCRIPTION AND APPLICATION OF DATA COLLECTING TECHNIQUES

5.3.1 Data collecting technique

As South African apparel websites generally supply very little textile information to consumers, it was decided to let the respondents compare one South African website to the mock website containing the textile guide (they were given five web addresses of well-known South African apparel retailers). The researcher decided not to use the mock website without the guide for comparison, as the difference would be too obvious if no information was supplied – this could bias the results.

The mock website was copied on CD ready to be opened on the computers of the Department of Consumer Science at the University of Pretoria. After posting a notice on the staff Intranet of the University of Pretoria, one of the respondents (from the Department of Information Technology) offered to copy the CD and questionnaires to the staff Intranet, which meant that any staff member could access the guide in their office, fill out the questionnaire and return it by e-mail. The respondents were asked to use the website and then assess the information provided in the web pages by answering a structured questionnaire. They were also asked to access one South African apparel retail website of their choice and then assess the information provided in the web pages by answering the second part of the structured questionnaire. Five website addresses were supplied that could be accessed[3]. They were asked to indicate the website that had been accessed to enable the researcher to compare the responses. This was judged an appropriate method, as the sub-objectives and specific aims could be addressed in this way, and as other researchers have successfully used structured questionnaires to measure consumer perceptions of apparel

3 These websites were chosen as they represent well-known South African apparel retailers. Most of these websites only contain basic information regarding the garments on offer. This information includes sizing, price and in some cases a vague description of the textile used. One of the websites also includes care instructions, and although it supplies information on the latest fashion in store, it only has underwear on offer via the Internet.

quality and decision-making in fashion retailing (Abraham-Murali & Littrell, 1995b; Birtwistle *et al.*, 1998).

5.3.2 The structured questionnaire for the third phase of the study

Here the objective was to determine if the online guide had helped the respondent in her decision-making process. They were asked to rate the content and amount of supplied information of the products on offer. Although this was the main objective, questions were also asked to determine if the respondent was able to access the necessary information with relative ease.

Once again closed questions were used for the same reasons as in the first phase of the study. As the guide was tested in the computer laboratory of the Department of Consumer Science of the University, there were enough computers available to accommodate ten respondents per session.

TABLE XVIII: THE STUCTURE OF THE QUESTIONNAIRE (Third phase)

SECTION	ASPECTS MEASURED	QUESTION NUMBER
A	**Aspects concerning the textile quality assessment guide**	
	Content: Easy to understand	Questions 1-14
	Contains information on fibres and their properties that help with decision-making	
	Contains information on fabrics and their properties that help with decision-making	
	Contains information on applied finishes and their properties that help with decision-making	
	Gives one a better idea of textile appearance	
	Gives one a better idea of textile hand	
	Facilitates decision-making	
	Design: Navigability, labelling of links, interactivity, aesthetically appealing	Questions 15-19
	Technical elements: All links work, quick download	Questions 20-22
	Credibility: Styles are up to date; page recently updated; contact person indicated	Questions 23-24

B	**Aspects concerning an existing South African website**	
	Content: Easy to understand	Questions 1-14
	Contains information on fibres and their properties that help with decision-making	
	Contains information on fabrics and their properties that help with decision-making	
	Contains information on applied finishes and their properties that help with decision-making	
	Gives one a better idea of textile appearance	
	Gives one a better idea of textile hand	
	Facilitates decision-making	
	Design: Navigability, labelling of links, interactivity, aesthetically appealing	Questions 15-19
	Technical elements: All links work, quick download	Questions 20-22
	Credibility: Styles are up to date; page recently updated; contact person indicated	Questions 23-24
	Comparison of content (mock site and SA site accessed)	Questions 25-26
	SA website accessed	Question 27
C	**Demographics**	Questions 1-5

The questionnaire consisted of three sections with a total of 56 questions. The first part of the questionnaire was to assess the mock website and online guide, the second part to assess an existing South African website and the third to obtain biographic information. The first 24 questions (Section A) determined the respondents' reaction to the mock website. Aspects included were related to content (14 questions), design (5 questions), technical elements (4 questions) and credibility (2 questions). The next set of questions (Section B) was similar to Section A, and used for assessing a South African website. The same divisions as for Section A were used: content (14 questions); design (5 questions); technical elements (3 questions) and credibility (2 questions). At the end another set of questions was added to compare the two websites (2 questions) and one question to indicate which South African website had been used for comparison. The last set of five questions (Section C) was to gather demographic information (age, level of education, and use of the Internet). (See Appendix 2 for the second questionnaire, cover letter and instructions).

As in the first phase of the study closed questions were chosen to ensure easy and quick response and to simplify the coding of the responses. Once again closed questions were used. Likert-scales were used where Disagree/Neutral/

Agree responses were required for the questions relating to the content (information supplied). Agree/Disagree responses were required for the questions relating to design, technical elements and credibility. Where they were asked to compare the mock website containing the textile guide, respondents were asked to rate the information supplied, on a 3-point scale in terms of facilitating decision-making.

5.3.3 Data collecting procedures for phase three

The same procedure, used in phase one of the study, was followed for the third phase. Before finalising the questionnaire for phase three of the study the questionnaire was evaluated by a research consultant, a statistician, clothing and textile experts and the study leader. Both content and measures used to obtain data were evaluated. The suggested adaptations were made before colleagues in the Clothing and Textile division of the Department of Consumer Science were asked to use and evaluate the website and online guide. After this evaluation further changes were made before the final version was copied to compact disc.

The Intranet of the University of Pretoria was initially used to canvas for respondents. The purpose of the study was explained and each potential respondent was informed of the possible benefits she could derive from participating. As in phase one of the study it was suggested that the sample should include both university staff as well as career women employed elsewhere.

The respondents were expected to attend a “test” session in the computer laboratory of the Department of Consumer Science or they could choose to be supplied with a CD and instructions for completing the exercise on their own. The computer laboratory has Internet connection and ten computers available for each session. As explained (5.3.1) a staff member at the Department of Information Technology copied the website, instructions and questionnaires to the staff Intranet of the University of Pretoria. All respondents from the university chose to use this option as they found it more convenient and less time

consuming. The respondents not working at the university were supplied with compact discs and a set of instructions, as it was too time-consuming for them to come to the university. All questionnaires were received via e-mail, printed out, hand-coded by the researcher and then electronically entered and captured at the University of Pretoria.

5.4 DATA ANALYSIS

5.4.1 Coding and capturing the data obtained in the final phase of the study

- **The questionnaire**

The same procedure was followed as for phase one. Here all the questions were closed questions. The questionnaires were hand coded and the data then captured electronically by the data-capturing division and checked for correctness.

The questionnaire was used to assess the effectiveness of the guide. The responses were recorded, organised and coded. The data were then analysed using descriptive statistics. Once again, frequency distribution (two-way contingency tables) as well as a specialised χ^2 test (the McNemar test) were used to determine how the various aspects in the guide helped the consumer when making decisions regarding the quality of outer wear garments for formal day/office and casual wear.

5.4.2 Operationalisation

The central concepts were expressed in the research problem and the framework for the research process. Theoretical definitions for the concepts concerning quality as well as the applicable concepts related to the buying process were given in Chapter 2. Theoretical definitions and descriptions of relevant concepts facilitate the development of measures or activities that allow the researcher to observe the constructs empirically (Mouton, 1996: 125; Neuman, 2000; 160; Babbie & Mouton, 2001: 128).

Cronbach's alpha coefficient was used to assess the degree of internal consistency of the responses. The reliability of the factors was assessed by Cronbach's alpha coefficient. In general, alpha values of 0.70 and higher are considered to be acceptable (Watson & Klassen, 2004). The formula for the standardised Cronbach's alpha is as follows:

$$\alpha = \frac{N \cdot \bar{r}}{(1 + (N-1) \cdot \bar{r})}$$

Where N = the number of items and

$\bar{r}$ = the average inter-item correlation among items

McNemar's test of correlated proportions was used to determine the significance of the difference between the "agree" and "disagree" responses when asked to compare the information supplied by the website containing the guide to the chosen South African website. This test is applied to 2 x 2 contingency tables (Watson & Klassen, 2004). To be able to apply this test, the data had to be recoded. The "disagree" and "neutral" responses were grouped together as both responses implied that the supplied information would not influence (or change) their decision-making. By examining the change in responses after using both websites, significant differences in the type of textile information supplied by the different websites was detected.

The McNemar statistic computation (a Chi-Square test) is shown below:

$$\chi^2 = \frac{(b-c)^2}{b+c}$$

In four cases the McNemar test could not be done, as the recoding grouped al the responses for those four variables into one cell (there were no positive responses for these variables when assessing the chosen South African website). Binominal tests were done in these cases.

TABLE XIX: OPERATIONALISATION: OBJECTIVE, RELATIVE QUESTIONS, AND STATISTICAL METHODS

Objectives & Sub-objective	Relative question	Statistical methods used
Objective 3: Does the guide facilitate decisions concerning the online purchase of apparel products?	Section A: Question 1-24 Content of textile guide: Question 1- 14	Frequencies and percentages of responses concerning the descriptors, were used; Cronbach's alpha coefficient was used to test reliability of the responses and McNemar's test of symmetry was done after recoding the responses into 2-point scales (this tested if the website containing the guide elicited more positive responses when compared with the South African websites); Binominal tests were used where McNemar's test could not be applied.
	Design of mock website: Question 15 – 19 Technical elements: Question 20 – 22 Credibility: Questions 23 - 24	Frequencies and percentages of responses concerning the descriptors, were used
	Section B: Question 1-24: Content of SA website: Question 1- 14	Frequencies and percentages of responses concerning the descriptors, were used; Cronbach's alpha coefficient was used to test reliability of the responses and McNemar's test of symmetry was done after recoding the responses into 2-point scales (this tested if the website containing the guide elicited more positive responses when compared with the South African websites); Binominal tests were used where McNemar's test could not be applied.
	Design of SA website: Question 15 – 19 Technical elements: Question 20 – 22 Credibility: Questions 23 – 24	Frequencies and percentages of responses concerning the descriptors, were used
	Comparison of content of mock website with textile guide and chosen SA website: Question 25 –26 Chosen SA website: Question 27	Frequencies and percentages of responses concerning the descriptors, were used Only included for control purposes

5.5 QUALITY OF THE DATA

5.5.1 Validity

The same measures of validity used in the first phase of the study (as described in Chapter 3) were also applied to the third phase of the study.

- **Construct validity**

As in phase one, construct validity refers to the logic of the items which comprise the measures of the concepts. A good construct has a theoretical basis, indicated ('translated') by clear operational definitions that involve measurable instruments (Trochim, 2005: 50; Statistics Solutions, 2007).

➢ **Criterion-related validity**

Convergent validity is assessed by the correlation among items which make up the instrument used to measure a construct (internal consistency). In this part of the study Cronbach's alpha was also used to establish internal consistency of the responses relating to the content of the mock website containing the textile quality assessment guide and the content of the chosen South African apparel website. This method is both valid and reliable. An alpha-value of 0.70 is considered adequate, and a value of 0.80 is considered good for confirmatory purposes.

➢ **Translation validity**

Face validity has to do with items seeming to measure what they claim to. This does therefore not refer to what an instrument actually measures, but what it appears to measure (Babbie & Mouton, 2001:123; Neuman, 2000: 168). The measure therefore appears relevant to those who will complete it. In the case of the second questionnaire, the questions all relate to the online textile assessment guide as well as the mock website. Another set of questions relates to an existing South African website. This was used to

compare the responses on the existing South African website(s) with the developed website linked to the online textile quality assessment guide.

Content validity is concerned with adequacy and representativeness. In this study appropriate statistical techniques (frequencies, averages, specialised χ^2 tests) were used for the analyis of data from which conclusions were drawn based on a thorough understanding of the literature (Mouton, 1996: 111; De Vos & Fouché, 1998:84-5; Babbie & Mouton, 2001:123; Neuman, 2000: 168; Trochim, 2005: 51). A **pre-test** was done to test the measuring instrument

5.5.2 Reliability

Reliability is an indicator of dependability or consistency (Neuman, 2000: 164). It indicates the likelihood that a given measurement technique will repeatedly yield the same description of a given phenomenon (Mouton, 1996: 144). The numerical results that are produced by the indicator do not vary because of the measurement instrument itself. In the case of this phase of the study, the type of measurement used, namely Likert-type scales, “Agree/Disagree” statements, standard statistical coding methods, as well as the use of a pre-test ensure reliability (Neuman, 2000: 165; Babbie & Mouton, 2001: 120; 646). The following strategies were applied in the third phase of the study to ensure reliability:

- The questions used in the questionnaire were closed questions
- The questionnaire was pre-tested
- The questionnaire could be completed in a relatively short time, was easy to understand and relevant
- A cover letter explaining the objective of this phase of the study and the importance of their participation accompanied the questionnaire.
- The use of Likert-type scales is a well-established method of data collection. Standard statistical coding methods were also used.

- Cronbach's alpha coefficient was used to determine consistency (reliability) of the responses.

5.5.3 Representative sampling

According to Mouton (1996: 136), the key concept in sampling is that the sample should be representative of the chosen population. Only then can generalisations concerning the whole population be made. The sampling frame must be representative of the target population to prevent bias.

The sampling method used for the third part of the study was also purposive (judgemental sampling). This is an acceptable sampling method when the researcher wants to select a wide variety of respondents to test the broad application of the questions (Neuman, 2000: 198; Babbie & Mouton, 2001: 166).

The purposive or judgemental sampling method used for the last phase of the study (snowball sampling technique) is appropriate, as it is an acceptable method to use when members of a specific population are difficult to locate. As still relatively few South African consumers purchase apparel on the Internet, this was judged an appropriate sampling method for this part of the study.

As this sampling technique results in samples of questionable representative-ness, it is primarily used for exploratory studies, as is the case with this study.

5.6 DATA PRESENTATION

The data obtained through the questionnaire were statistically analysed. The data conversion is available in hard copy (researcher's files) as well as electronic copy at the Department of Statistics of the University of Pretoria. The results and statistical findings of phase three of the study are presented, discussed and interpreted in Chapter 6.

CHAPTER 6

RESULTS, DISCUSSION AND INTERPRETATION OF THE FINAL PHASE OF THE STUDY

6.1 INTRODUCTION

The objective of the final phase of the study was to determine if an online textile quality assessment guide would facilitate the online consumer's decision-making when purchasing garments on the Internet. The results were used to assess the usefulness of the guide. The results of the final phase were also related to the aspects that play a role in apparel decision-making, as discussed in Chapter 2.

The responses to the questions on the mock website containing the online guide and five different South African apparel retail websites were compared. (No reference is made to individual South African websites; the results are discussed in general terms, as the respondents were asked to access only one South African website – they could choose anyone of the five suggested sites).

6.2 RESULTS AND DISCUSION OF THE THIRD PHASE OF THE RESEARCH:

6.2.1 Demographic information

TABLE XX: AGES OF RESPONDENTS

Age of respondents	Frequency	% Respondents
23 – 29 years old	59	29.5
30 – 34 years old	82	41.0
35 – 40 years old	41	20.5
Over 40 years old	18	9.0

Where in the first phase of the study the different age groups in the study were more or less equally represented, for the third phase of the study more respondents (41 %) fell into the 30 – 34 year age group, followed by the 23 – 29 year age group (29,5 %). Slightly less (20,5 %) fell in the 35 – 40 year age

group and only a few (9 %) fell in the 'over 40' age group. (As most South African web-users fall in the 25 – 35 year age group, this means that this group is well represented in the sample) (Webchek: Archive – Online shopping trends, 2006).

TABLE XXI: EDUCATION LEVEL OF RESPONDENTS

Highest qualification	Frequency (n=200)	% Respondents
Post school certificate/ diploma	11	5.5
National diploma/ Higher diploma	65	32.5
Degree or equivalent	124	62.0

As in the first phase of the study, the majority of the respondents had a degree or equivalent qualification (62 %), while 32.5 % had a national or higher diploma.

TABLE XXII: LENGTH OF INTERNET USE

Experience with Internet	Frequency (n=200)	% Respondents
Less than 6 months	0	-
6 – 12 months	2	1.0
1 – 3 years	19	9.5
4- 6 years	70	35.0
7 years or more	108	54.0
Other	1	0.50

It seems that most respondents have been using the Internet between four to seven years or longer. The majority of the respondents (108 – 54%) have been using the Internet for seven years and longer, while 70 (35%) of the respondents have been using it between four and six years. One respondent specified that she has been using the Internet for 17 years. One can therefore deduct that most of the respondents have knowledge of the Internet and are familiar with using it.

TABLE XXIII: FREQUENCY OF INTERNET USE

Frequency of Internet use	Frequency (n=200)	% Respondents
Once a month or less	34	17.0
Once a week	36	18.0
2 – 3 times a week	69	34.5
Every day	61	30. 5

The results indicate that the majority of respondents use the Internet two to three times a week (34,5 %) or more (every day: 30,5 %), which means that 65 % of the respondents frequently use the Internet. The assumption can therefore be made that they are familiar with the Internet.

TABLE XXIV: FREQUENCY OF ONLINE APPAREL PURCHASING

Frequency of online apparel purchasing	Frequency (n=200)	% Respondents
Never	164	82.0
Once a year or less	26	13.0
Once a season or less	9	4.5
Once a month or less	1	0.5
Once every two weeks	0	-

The results indicate that very few of the respondents ever purchase apparel online. A small percentage of respondents (13 %) seem to purchase something once a year or less. Only a very small percentage (4.5 %) of the respondents seam to buy something each season and only one respondent (0.50%) uses the Internet once a month or less to purchase apparel. The vast majority (82 %) have never purchased any apparel online. These results are as expected as South African buyers still prefer to browse and shop in traditional shopping environments (Webcheck: Archives – Online shopping trends, 2006). This could be an indication that the majority of these respondents have not yet developed new or adapted existing apparel purchasing scripts for online buying and this could have had an effect on the way they judged and compared the websites.

6.2.2 Comparison of the content of the website containing the textile guide and the different South African websites used in this study

One of the main objectives of the study was to determine if a textile guide would supply consumers (and especially online consumers) with enough information to facilitate decision-making during apparel purchasing.

Table XXV indicates the reliability of the responses regarding the content of the websites used in the study.

TABLE XXV: INTERNAL RELIABILITY OF RESPONSES TO QUESTIONS RELATING TO THE DIFFERENT WEBSITES

Content	Cronbach's Alpha	Number of items
Questions 2 – 15 (Website + guide)	0.720	14
Questions 26 – 39 (SA websites)	0.792	14

As explained in Chapter 5, Cronbach's alpha coefficient was used to assess the degree of internal consistency and reliability of the responses. In general, an alpha value of $P \geq 0.70$ is an acceptable measure of consistency and in both cases, the P-value is greater than 0.70, which indicates an acceptable consistency and reliability of the responses (Gliem & Gliem, 2003; Watson & Klassen, 2004).

The results of the second questionnaire are presented in the following tables to illustrate the responses to both the website containing the textile guide and the South African websites that were accessed by the respondents.

In the discussion the responses to statements relating to specific cues regarding the website containing the textile guide are compared to the responses to the same statements regarding the South African websites used in this study.

The relationship between information supplied by the website containing the textile guide and the South African websites is indicated in Table XXVI. The statistician recommended that the data should be recoded, as 2x2 contingency tables are required for the McNemar test. The recoded responses allow for only two possibilities, therefore the frequencies of the "disagree" and "neutral" responses were added to give the one possibility, and the "agree" responses gave the other possibility of the 2 x 2 contingency tables so that McNemar's test could be performed. (The original coded responses as well as the recoded values can be found in Addendum 3). This was done as the assumption was made that someone who was neutral towards the information would probably be as disinclined to buy online as someone with a negative response.

TABLE XXVI: COMPARISON OF THE CONTENT OF THE WEBSITE CONTAINING THE TEXTILE GUIDE AND THE DIFFERENT SOUTH AFRICAN WEBSITES

	Frequency Column % % N = 200	South African websites			Aspects relating to content
Website containing textile guide		Disagree + Neutral	Agree	Total	
	Disagree + Neutral	3 10.0	0 0.00	3 1.5	Information supplied easy to understand (McNemar's test: p = 0.000[a])
	Agree	27 90.0	170 100.0	197 98.5	
	Total	30 15.0	170 85.0	200 100.0	
	Disagree + Neutral	5 14.3	48 29.1	53 26.5	Illustrations help to visualise garment (McNemar's test: p = 0.054[a] : two-sided; p= 0.028: one-sided)
	Agree	30 85.7	117 70.9	147 73.5	
	Total	35 17.5	165 82.5	200 100.0	
	Disagree + Neutral	18 9.9	0 0.0	18 9.0	Additional style information helps visualise the garment (McNemar's test: p = 0.000[a])
	Agree	163 90.1	19 100.0	182 91.0	
	Total	181 90.5	19 9.5	200 100.0	
	Disagree + Neutral	54 27.0	- -	54 27.0	Tactile information helps to form an idea of fabric hand McNemar's test could not be performed; binominal test p =0.000[b])
	Agree	146 73.0	- -	146 73.0	
	Total	200 100.0	- -	200 100.0	
	Disagree + Neutral	36 18.0	- -	36 18.0	Effect of fibre property information on understanding durability McNemar's test could not be performed; binominal test p = 0.000[b])
	Agree	164 82.0	- -	164 82.0	
	Total	200 100.0	- -	200 100.0	
	Disagree + Neutral	18 9.0	1 100.0	19 9.5	Effect of fibre property information on understanding comfort (McNemar's test: p = 0.000[a])
	Agree	181 91.0	0 0.0	181 90.5	
	Total	199 99.5	1 0.5	200 100.0	
	Disagree + Neutral	1 0.5	1 12.5	2 1.00	Effect of fibre property information on understanding ease of care (McNemar's test: p = 0.000[a])
	Agree	191 99.5	7 87.5	198 99.0	
	Total	192 96.0	8 4.0	200 100.0	
	Disagree + Neutral	54 27.0	- -	54 27.0	Effect of fabric property information on decision-making McNemar's test could not be performed; binominal test p = 0.000[b])
	Agree	146 73.0	- -	146 73.0	
	Total	200 100.0	- -	200 100.0	

	Disagree + Neutral	21 10.6	1 100.0	22 11.0	Effect of applied finish information on decision-making (McNemar's test: p = 0.000[a])
	Agree	178 89.4	0 0.0	178 89.0	
	Total	199 99.5	1 0.5	200 100.0	
	Disagree + Neutral	4 2.2	0 0.0	4 2.0	Effect of care symbols and care instructions on decision-making (McNemar's test: p = 0.000[a])
	Agree	182 97.8	14 100.0	196 98.0	
	Total	186 93.0	14 7.0	200 100.0	
	Disagree + Neutral	3 2.0	3 5.9	6 3.0	Effect of the combination of descriptions and photographs on visualisation of the garment (McNemar's test: p = 0.000[a])
	Agree	145 98.0	48 94.1	193 97.0	
	Total	148 74.4	51 25.6	199 100.0	
	Disagree + Neutral	56 28.6	0 0.0	56 28.0	Effect of fabric description on assessing fabric hand (McNemar's test: p = 0.000[a])
	Agree	140 71.4	4 100.0	144 72.0	
	Total	196 98.0	4 2.0	200 100.0	
	Disagree + Neutral	28 14.2	0 0.0	28 14.0	Information facilitates decision-making (McNemar's test: p = 0.000[a])
	Agree	169 85.8	3 100.0	172 86.0	
	Total	197 98.5	3 1.5	200 100.0	
	Disagree + Neutral	74 37.0	- -	74 37.0	Information helps decision about overall quality McNemar's test could not be performed; binominal test p = 0.000[b])
	Agree	126 63.0	- -	126 63.0	
	Total	200 100.0	- -	200 100.0	

[a] Binominal distribution used (the two-sided P-value is divided by 2 for the one-sided questions)
[b] Based on Z-approximation

Table XXVI shows the frequencies used for the McNemar test of correlated proportions to evaluate the significance of respondents' "agree" or "disagree" responses to the information supplied by the websites that were compared. By examining the difference in response after comparing the websites, significant differences in the information supplied could be detected. Each aspect relating to the content of the websites that were compared is discussed separately. For this test the level of significance used was $\rho < 0.05$.

There were four instances where the McNemar test could not be performed as none of the respondents agreed on the statements for the South African websites.

A binominal test was done on these recoded values. All the values obtained with this test indicated a statistically significant difference between the website containing the guide and the chosen South African website it was compared to.

The majority of the respondents found the information supplied by the website containing the textile guide as well as the South African websites easy to understand, but the McNemar test indicates that significantly more respondents ($\rho < 0.000$ on a 5 % level of significance) gave the website containing the textile guide a better rating than the South African websites.

When looking at the frequencies, more respondents (165) agreed that the illustrations of the South African websites helped them to visualise the garment. There were 147 respondents who agreed that the illustrations used in the website containing the textile guide helped them to visualise the garment. The McNemar test indicates this as a statistically significant difference ($\rho < 0.028$ on a 5% level of significance).

When asked if additional style information helped them to visualise the garment, the majority of the respondents (182; 91 %) agreed that the information supplied by the website containing the textile guide did help them to visualise the garment, but only 19 (9.5 %) of the respondents agreed that additional style information supplied by the South African websites helped them in this respect. The Mc Nemar test indicates this difference in responses as statistically significant ($\rho < 0.000$ on a 5 % level of significance).

Most respondents (146; 73 %) agreed that website containing the textile guide supplied information on tactile aspects, helped them to form an idea regarding the fabric hand. This was one of the four statements where the McNemar test could not be performed as none of the respondents agreed on this statement for the South African website. A binominal test was done on the recoded values and the values obtained with this test indicated a statistically significant difference between the website containing the textile guide and the South African websites ($\rho < 0.000$ on a 5 % level of significance).

When asked if the information supplied regarding fibre properties had given them a better understanding of durability, most respondents (164; 82 %) agreed that the website containing the textile guide complied. Once again the McNemar test could not be applied as no respondents agreed that the South African websites had helped them gain a better understanding of durability. A binominal test was also done on these results and also indicated a statistically significant difference between the website with the textile guide and the South African websites ($\rho < 0.000$ on a 5 % level of significance).

Once again a large majority of the respondents (181; 90.5 %) agreed that the fibre property information contained in the textile guide had helped them gain a better understanding of comfort, while 199 (99.5 %) of the respondents disagreed with this statement regarding the South African websites. The McNemar test indicates a statistically significant difference in responses ($\rho < 0.000$ on a 5 % level of significance), which indicates that the website containing the textile guide was regarded as significantly better in this respect.

When asked if the information supplied on fibre properties had helped them gain a better understanding of ease of care a large majority (198; 99 %) agreed that the information supplied by the textile guide had helped them, while 192 (96 %) of the respondents disagreed that the South African websites had helped them in this respect. Once again the McNemar test indicates a statistically significant difference in the responses ($\rho < 0.000$ on a 5 % level of significance), with a better rating for the website containing the textile guide.

Although only 146 (73 %) of the respondents agreed that the textile guide supplied enough information to help them with decision-making, no one agreed that the South African websites had helped them in this respect. As the McNemar test could not be performed, a binominal test was done on the recoded values and the values obtained with this test indicated a statistically significant difference between the website containing the textile guide and the South African websites ($\rho < 0.000$ on a 5 % level of significance).

When asked if the textile guide supplied enough information regarding applied finishes to help with decision-making, 178 (89 %) of the respondents agreed, while only one (0.5 %) agreed that the South African website accessed supplied enough of this type of information to help decision-making. The McNemar test indicates a statistically significant difference in responses ($\rho < 0.000$ on a 5 % level of significance), which once again indicates that the website containing the textile guide was given a better rating by the respondents.

Most respondents (196; 98 %) also agreed that the care symbols together with the care instructions supplied in the textile guide helped them get a clear idea of the care procedures involved. Only 14 (7 %) of the respondents agreed that the South African websites had helped them in this regard. Once again the McNemar test indicates a statistically significant difference in the responses ($\rho < 0.000$ on a 5 % level of significance), with a better rating for the website containing the textile guide.

A large majority of the respondents (193; 97 %) agreed that the combination of descriptions and photographic images supplied by the textile guide had helped them get a better idea of the garment's appearance. Although 148 (74 %) of the respondents felt the same about the South African websites, the Mc Nemar test indicates a statistically significant difference in responses ($\rho < 0.000$ on a 5 % level of significance), which once again gives the website containing the textile guide a better rating.

A smaller majority of respondents (144; 72 %) agreed that the fabric descriptions in the textile guide had helped them to assess fabric hand. Only four respondents (2 %) agreed that the South African websites had helped them in this respect. The McNemar test once again indicates a statistically significant difference in the responses toward the websites that were compared ($\rho < 0.000$ on a 5 % level of significance).

When asked if the textile guide facilitated decision-making the majority of respondents (172; 86 %) agreed that the textile guide did facilitate decision-

making, but only three respondents (1.5 %) agreed that the South African websites did so. The McNemar test confirms that the textile guide got a better rating as the difference in the responses was once again statistically significant ($\rho < 0.000$ on a 5 % level of significance).

Only 126 (63 %) of the respondents agreed that the information in the textile guide helped them make a decision about the overall quality of the garments. Once again nobody agreed that the information supplied by the South African websites helped them to make a decision about the overall quality of the products on offer. The McNemar test could not be performed. A binominal test was done on the recoded values and the values obtained with this test indicated a statistically significant difference between the website containing the textile guide and the South African websites ($\rho < 0.000$ on a 5 % level of significance).

The respondents were also asked to rate the website containing the textile guide as well as the South African websites used in the study. A three-point scale was used to indicate if the supplied information would definitely help with decision-making, or if the information would not affect their decision-making, or if too little information was supplied to help decision-making. A standard Chi-Square test could not be done on the results as some of the cells had counts less than 5. It was recommended that the results should once again be recoded, as decision-making would not be influenced if the respondents rated the amount of information supplied as “too little” or that the amount of information “would not affect decision-making”. The McNemar test was done on the recoded values and indicated a statistically significant difference in the rating of the website containing the textile guide and the South African websites. (The original coding and the recoded values are included in Appendix 3)

The McNemar test indicated a statistically significant difference in responses ($\rho < 0.000$ on a 5 % level of significance), with a better rating for the website containing the textile guide.

TABLE XXVII: COMPARISON OF CONTENT OF WEBSITE WITH TEXTILE GUIDE AND VARIOUS SOUTH AFRICAN WEBSITES

	Frequency Column % % (N = 200)	South African websites: amount of information supplied		
Website containing textile guide		Too little + Not enough to change	Definitely helped	Total
	Too little + Not enough to change	40 20.2	1 50.0	41 20.5
	Definitely helped	158 79.8	1 50.0	159 79.5
	Total	198 99.0	2 1.00	200 100.0

These results (based on the original coding – see Appendix 3, p216) can be summarised by the following figure:

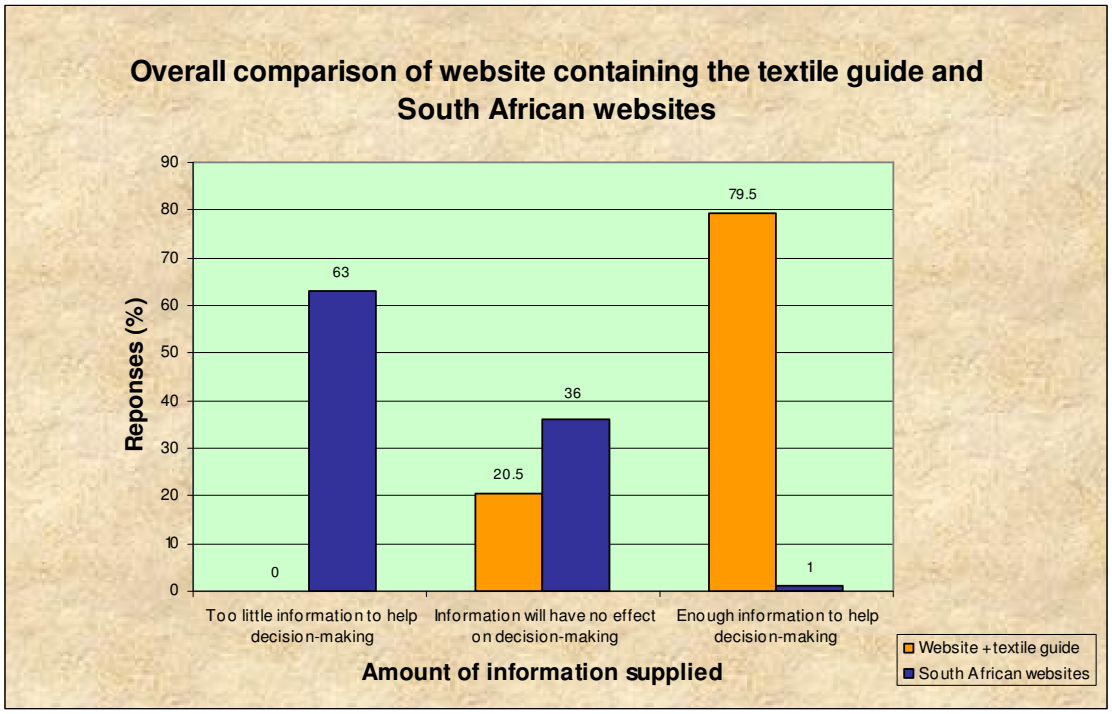

FIGURE 17: THE OVERALL COMPARISON OF THE WEBSITE CONTAINING THE TEXTILE GUIDE AND SOUTH AFRICAN WEBSITES USED IN THE STUDY (n = 200)

The bar chart clearly shows that the majority of the respondents (159; 79.5%) were positive about the information contained in the textile guide and felt that they would be able to make a purchase decision as a result of this information. On the other hand the chart shows that the majority (126; 63 %) of

respondents found too little information in the South African websites to enable them to make a purchase decision. Fewer respondents (41; 20.5 %) said that the information supplied by the website containing the textile guide would not influence their decision-making. In the case of the South African websites 72 (36 %) of the respondents said that the information would not influence their decision-making.

To assess the aspects concerning the design, technical elements and credibility of the website containing the textile guide as well as the South African websites used in the study, the respondents were asked to indicate if they agreed or disagreed with statements regarding the design, technical elements and credibility of the different websites.

TABLE XXVIII: DESIGN, TECHNICAL ELEMENTS AND CREDIBILITY OF THE DIFFERENT WEBSITES

Frequencies (n=200)	Website containing guide		South African websites	
Design	Disagree (%)	Agree (%)	Disagree (%)	Agree (%)
It is easy to navigate between the style pages and the different clothing items.	1.0 2	99.0 198	20.5 41	79.5 159
The information on the style and properties is concise and to the point	0.0 0	100.0 200	56.5 113	43.5 87
The site is interactive and there are links between the different clothing items	1.0 2	99.0 198	45 90	55 110
It is easy to compare the properties of the different offerings (n=198)	2.5 5	97.5 193	79.3 157	20.7 41
The variety offered is big enough (n=198)	30.3 60	69.7 138	30.3 60	69.7 138
Technical elements				
All the links work smoothly	0.5 1	99.5 199	8.5 17	91.5 183
The pages are interlinked and easy to access	1.5 3	98.5 197	37.0 74	63.0 126
The graphics download quickly	0.0 0	100.0 200	59.0 118	41.0 82
Credibility				
The styles are fashionable	1.5 3	98.5 197	1.5 3	98.5 197
The pages are all recently updated; contact number is indicated (SA: n=192)	2.0 4	98.0 196	71.4 137	28.6 55

In terms of the design aspects the table indicates that most respondents agreed that the website containing the textile guide was easy to navigate (198 respondents; 99 %), that the information on style and properties was concise and to the point (200 respondents; 100 %), that the site was

interactive and the links worked smoothly (198 respondents; 99 %). The majority (193 respondents; 97.5 %) also found that it was easy to compare the properties of the different garments on offer. The variety offered seemed to be the only aspect that could be improved upon, as only 138 respondents (69.7 %) of the respondents agreed that there was enough variety.

In the case of the South African websites the responses varied. The only aspects that received positive responses were ease of navigation (159 respondents; 79.5 %) and variety offered (138 out of 198 respondents; 69.7%). Slightly more respondents agreed about the interactivity and links (110 respondents; 55 %) compared to those who disagreed (90 respondents; 45 %). Slightly more respondents disagreed (113 respondents; 56.5 %) on the aspect “Information on style and properties is concise and to the point “compared to those who agreed (87 respondents; 43.5 %). This could be related to the specific website they accessed to compare with the website containing the textile guide. The respondents did not find it easy to compare the properties of the different styles used in South African websites (157 out of 198 respondents; 79.3 %).

The website containing the textile guide was also rated high on all technical aspects. All the South African websites were rated high for “All links work smoothly” (183 respondents; 91.5 %), but got less positive responses for interlinking of pages and ease of access (126 respondents; 63 %) and more negative responses for speed of downloading graphics (118 respondents; 59 %). This result was probably also influenced by the website chosen to compare to the website containing the textile guide.

Once again the website containing the textile guide received mostly positive responses in terms of credibility. The South African websites received exactly the same response as the website with the guide for “The styles are fashionable” (197 respondents; 98 %), but only 55 respondents (28.6 %) thought that the pages had recently been updated. This was probably because they did not look for the date in the fine print at the end of the pages

– the website containing the textile guide was less cluttered and the date was easier to see.

6.3 INTERPRETATION OF THE RESULTS OF THE THIRD PHASE OF THE STUDY

6.3.1 Introduction

The objective of the third phase of the study was to test the textile guide developed in phase two of the study and to determine if the information supplied helped to facilitate decision-making.

A quantitative research style was once again chosen. A self-administered questionnaire (available with the website containing the textile guide on the staff intranet of the University of Pretoria or on the CD supplied to respondents not employed at the university) was used to collect the data for the third phase of the study.

The results of the third phase of the research are interpreted in this section to determine if the third objective, “Does the guide facilitate decisions concerning the assessment of the fabric quality of online apparel products?” was met. Reference is also made to the South African websites used in the study.

The sub-objectives for the first phase of the study are once again used as guideline for the interpretation. The results are also compared to those of other researchers and authors as discussed in Chapter 2.

6.3.2 Interpretation of the results related to the content of the website containing the textile quality assessment guide

There were fourteen statements that were used to assess the content and

compare the website containing the textile guide to selected South African websites. The difference of responses was statistically significant in all fourteen cases with all but one rating the website containing the textile guide as being better. (This single case will be addressed later).

It seems that the guide was successful in supplying enough easy- to-understand information on most of the aspects related to the formal physical and performance aspects of textile quality to help with decision-making. The textile guide was also successful in supplying enough style information and visuals to help the respondents form a better idea of the appearance of the garments. The respondents seemed to have an excellent understanding of fibre and fabric properties that influence maintenance aspects (99 % agreed that they understood the effect of fibre properties on ease-of-care, and 98 % agreed that the combination of care symbols and care instructions gave them a better insight into the care procedures involved). As care labels are often the only source of information South African consumers can rely on, this result could be expected as care symbols and instructions would be familiar. (It was interesting to see that only one of the five South African websites chosen for assessment, supplied care instructions and additional care information).

The guide also seemed to supply enough fibre property information to give the respondents a better understanding of properties that affect comfort and durability (although less respondents agreed that they had gained a better understanding of durability – 82% as opposed to 90.5 % regarding comfort). The information supplied regarding applied finishes and the properties they add to the garment also appeared to be highly successful. As 86 % of the respondents were of the opinion that the guide did facilitate decision-making, the third objective was achieved.

Although the website with the guide got an overall better rating than the South African websites, there are aspects that can be improved upon. In four of the fourteen cases (statements) the number of respondents who agreed was less than 80 % of the total. As expected the aspect that was most

difficult to assess was fabric hand. Although the majority of respondents gave the website containing the textile guide a higher rating than the South African websites, not as many respondents [73 % and 72 % (questions 4 & 12)] agreed that they would be able to judge fabric hand by using the guide. According to Sasaki *et al.* (2004) consumers have concrete images of fibres and fabrics that have distinctive features or are widely used in everyday life. This also seems to correspond with the script theory as explained in research done by Erasmus *et al.* (2002) and Jacobs (2003: 176). As most of the fibres and fabrics included in the guide were well-known textiles commonly used in the type of garments displayed, this could have affected the responses. More than 25 % of the respondents did not agree that the textile guide had helped them assess fabric hand. This could be an indication that the descriptions given in the guide did not correspond to their scripts or that the idea of online buying is so far removed from their present apparel purchasing scripts, that it could not yet be accommodated in these consumers' conventional apparel purchasing scripts (Perry, 2004). In the South African context where consumers are rarely supplied with more than the most basic textile information, this scenario is more than probable. This would mean that even more attention should be paid to including textile information in apparel website design (this aspect is addressed in the recommendations). With more experience of utilising textile information, it would be possible to adapt consumers' apparel purchasing scripts over time. The relatively high positive responses from consumers who, in the majority of cases, do not buy online, could also correspond with the opinion of Kulviwat *et al.* (2004) who imply that the new virtual technology provides immediate information and experience of the product to the online consumer, which can take the place of a script. Because of the readily available information there is no immediate need to use or adapt existing scripts.

The effect of the supplied information on decision-making regarding overall quality is also not as satisfactory as the other aspects discussed, as only 126 (63 %) of the respondents agreed that the information helped them make a decision about the overall quality of the garments. The lower positive response could be ascribed to a lack of knowledge regarding the effect of

fibre and fabric properties on quality as identified in the first phase of the study. As only 36 of the respondents (18 %) have ever bought any apparel items from the Internet, this could also have influenced the response to this question.

The one aspect where the South African websites were rated significantly higher than the website containing the guide was in terms of how the illustrations had helped them visualise the garments. As explained earlier, the mock website contained mainly summer styles and the South African websites had been recently updated to display the new winter styles. In many cases these illustrations were artistic photographs of the complete fashion look for the new season, some with details in added close-up pictures. The styles in the mock website showed separate top, skirt and pant styles which did not give a "complete" picture for some of the respondents (some sent a note with their returned questionnaires and indicated that they would also like information on how to combine tops with skirts or pants to form a complete outfit – this might have influenced their response to this statement). This result is consistent with results obtained by Jacobs (2003:132) who found that consumers prefer the presentation of products to be realistic and clear. They prefer to see clothes on a person or mannequin. As they seem to have difficulty in mixing and matching the available products and forming an image of a whole ensemble, it would be advisable to include suggestions of complete outfits accompanied by visuals to address this problem.

In general it seems as if the guide did help the respondents to make decisions concerning the quality of online apparel products, but there is still room for refining and improving the textile guide to ensure that more consumers will have the confidence to make judgements that will enable them to purchase apparel online with the same ease as when purchasing in store.

CHAPTER 7

CONCLUSIONS, EVALUATION, CONTRIBUTION TO THEORY AND RECOMMENDATIONS

7.1 INTRODUCTION

The aim of this research was three-fold. In the first place the aim was to determine which textile-related cues adult career women use when making purchase decisions regarding formal and casual daywear. To determine which intrinsic aspects are important determinants of quality, when making purchase decisions, aspects relating to consumer decision-making were researched.

As the second and third aims of the study were to develop and test an online textile guide for the female South African apparel shopper, the Internet as new purchase environment and the interactive possibilities of this medium, were researched.

A quantitative approach was used throughout the study. In the first phase a structured questionnaire was used to collect data to get an insight into the intrinsic aspects consumers use when making purchase decisions regarding formal and casual daywear. The same approach was used to collect data for the last phase of the study. A structured questionnaire accompanied by a mock website containing a textile guide and detailed instructions were supplied. The purpose of the structured questionnaire was to assess if the textile information provided in the online textile guide facilitated decision-making.

In this chapter general conclusions regarding the different phases of the study are made. This is followed by an evaluation of the limitations and success of the quantitative research style, data collecting methods, sample selection, data analysis, and the quality of the study and achievement of the

sub-objectives. The study's contribution to existing theory is then discussed. Recommendations are made to the apparel industry in general as well as to apparel retailers with an online presence. Recommendations for follow-up and similar future studies are made.

7.2 GENERAL CONCLUSIONS REGARDING THE DIFFERENT PHASES

The aim of the study was not to generalise, but to obtain insight and understanding of the quality indicators career women use when making decisions regarding quality during the purchase of garments so that a textile guide could be developed to help online apparel consumers with their decision-making process. The conclusions are applicable to the respondents who took part in the study.

7.2.1 Conclusions regarding the use of formal physical textile features in the assessment of quality and career women's ability to relate these features to performance when making purchase decisions.

Certain conclusions can be drawn from the results. In the first place one can conclude that many of the South African career women who took part in the study still use price as main indicator of quality. This is probably due, not only to a lack of textile knowledge, but also to a lack of textile information, which then "forces" these consumers to use price as quality indicator. The findings of studies by Eckman *et al*. (1990) and Swinker & Hines (2006) support this conclusion. Some women do seem to rely on selected intrinsic textile related cues when making purchase decisions but, once again, due to the lack of information they seem to have difficulty in applying their knowledge during the decision-making process, as mainly tactile and appearance aspects are used when assessing quality of apparel. This is in accordance with the findings of other researchers (Eckman *et al.,* 1990; Abraham-Murali & Littrell, 1995a; Brown & Rice, 1998: 44; Jacobs, 2003: 138, 146-8; Swinker & Hines,

2006). This was seen as an indication that these consumers need more textile information that can be used during decision-making (and this applies to both online and traditional store consumers). The South African career women who took part in this study use textile related quality cues in a haphazard manner and need more structured textile information to help them understand the importance of the intrinsic textile attributes when making quality assessments.

In general the respondents usually used the more obvious durability, comfort and ease of care indicators when assessing quality, as was also the case in other studies (Abraham-Murali & Littrell , 1995a; Zhang *et al.,* 2002; Jacobs, 2003: 139; Hines & Swinker, 2006; De Klerk and Lubbe, 2007). This could support the conclusion that they lack knowledge and structured information of fibre and fabric properties that influence these performance properties. When asked to rate samples for end-use serviceability (for both formal and casual daywear) the respondents were reasonably successful in identifying the structures that would give more durable and comfortable textiles and would be easy to care for. As the samples represented fabrics that are usually used for the specified end-uses, they were familiar to the respondents. This is in accordance with the findings of Sasaki *et al.,* (2004), who indicate that consumers have concrete images of fibres and fabrics that are often used as well as those that have specific well-known surface characteristics. This also supports the script theory as found in research done by Erasmus (Erasmus *et al.*, 2002) and supported by Jacobs's findings (2003) that online consumers' decision-making will be influenced by their experience in traditional stores, as well as their prior knowledge of products.

A further conclusion was that they are aware of care labelling, but do not consistently use this information when making purchase decisions. In most cases the label is most frequently used to determine size, as this is something they are familiar with. Those respondents who do use labels in most cases do not relate the fibre content to the care instructions. They are, however, aware of care instructions and more inclined to look for easy-care properties when buying casual daywear. If consumers are supplied with more

information that indicates how the fibre and fabric properties are related to the quality of the garment's textile, they would probably be more inclined to read the labels before purchasing the garment. This would also help to eliminate many maintenance problems during use, and ensure that post-purchase evaluation would be positive and satisfactory.

For formal daywear the results show that appearance aspects are more important, which corroborates the findings of Lubbe (2003:122) and Jacobs (2003: 145-6), as well as Abraham-Murali and Littrell (1995a), Zhang, *et al.* (2002) and Hines and Swinker (2006) that symbolic and aesthetic aspects *('looks professional'; 'has a neat appearance')* play an important role in the choice of formal daywear.

From the response to the type of information the respondents would find helpful for decision-making, one can conclude that they are aware of their lack of knowledge due to lack of information – this is an important aspect to consider by both retailers in a traditional setting and retailers with an online presence.

7.2.2 Conclusions regarding the success of the guide in terms of facilitating decision-making when purchasing garments online

The mock website containing a textile guide was developed after analysing the results of the first phase of the study. The usefulness of the information supplied in the guide was compared to the information available on one of five selected South African websites.

The overall conclusion that can be made is that the information contained in the textile guide did facilitate decision-making as opposed to the South African websites that did not. Although the website containing the guide was rated better in almost all respects, there are still aspects that need more attention. It remains very difficult for the online consumer to assess the sensorial aspects of textiles. As this is a very important aspect during

decision-making, as indicated in Lubbe's research (2003: 12, 144), as well as in research done by Sasaki *et al.* (2004), more effort should be made to supply this type of information for the consumer and in a way that would be easy to understand. (This also applies to the emotional and symbolic effect of the illustrations used). It was also clear that apart from the lack of expertise regarding textile properties, consumers are often not able to visualise a complete outfit and would like suggestions to help them mix-and-match the items offered online.

The information regarding fibre and fabric properties and their effect on textile performance was given a positive rating, but tactile aspects remain a problem even though most respondents were positive and agreed that the information supplied helped them. The conclusion is made that websites should supply more information concerning the expressive quality of fabric texture (and specifically more visual cues) to compensate for the inability to handle the garments when buying online. (See discussion of limitations of this study).

Another conclusion that can be made is that, in spite of supplied information and a positive response from the participants, online consumers have difficulty to assess the overall quality of apparel products. In the case of South African consumers this can be due to a lack of textile knowledge or an inability to relate the supplied information to quality aspects, which could indicate that these consumers still need to expand their apparel purchasing scripts to accommodate more detailed textile information.

In general it seems as if the guide did help the respondents to make decisions concerning the fabric quality of online apparel products, but there is room for refinement and improvement to ensure that more consumers will have the confidence to make quality judgements that will enable them to purchase apparel online with the same ease as when purchasing in store.

7.3 EVALUATION OF THE STUDY

To make a contribution for follow-up and similar future studies, it is important to evaluate the study. This study is evaluated in terms of the following aspects:

- The quantitative research style
  - data collecting methods
  - sample selection and
  - data analysis
- The quality of the data
- The achievement of the sub-objectives and specific aims set for this study

7.3.1 Quantitative research style

A quantitative research style was chosen for the first and third phases of the study. In the case of the first phase of the study it was used to explore and describe which intrinsic quality cues career women use when purchasing garments for formal and casual daywear, as well as to determine if they could relate the formal physical features of fibres and fabrics and performance aspects to textile quality. The characteristics of this research style contributed to the success of the study. According to Neuman (2000, 16, 161) and Babbie and Mouton (2001, 646) the quantitative research style is used when one wants a total view of the problem, where emphasis is placed on variables in describing and analysing human behaviour. In quantitative research objective facts are measured, the focus is on variables, reliability is extremely important, the research is value free, independent of the context, included larger numbers of respondents, can be statistically analysed. In quantitative research the researcher is also detached, which enhances objectivity.

In the first phase of this study the aim was to explore and describe. This implies that the researcher wanted to obtain a total (complete) view of the quality cues used by South African career women when purchasing garments

for formal and casual daywear, as well as to determine if they related formal physical and performance aspects of fibres and fabrics to quality. A structured questionnaire enabled the researcher to get this total view ("broader picture") of the respondents' assessment of quality, as it measures specific dimensions of quality as explained in the conceptual framework. The questionnaire measured objective aspects, for instance the cues respondents use to assess quality, and the way they relate formal physical and performance aspects of textiles to garment quality.

This part of the study focussed on the variables obtained from the quality cues and related physical and performance aspects of textiles. Neuman (2000, 126) emphasises the variable is central to quantitative research. Quantitative research is seen as "language of variables and relationships among variables". In this study a variety of variables were identified in the literature and could be measured by using the relative dimensions and indicators in statements to make them more understandable for the respondents. The variables of this part of the study were related and gave an overview of the intrinsic aspects used to assess quality.

In the second phase of the study these objectively identified variables could be used in the development of the textile guide for online consumers of apparel products.

The aim of the third phase of the study was to explore and describe the respondents' reaction to the textile guide and in this way determine if the information obtained in the first part of the study had been successfully applied. A structured questionnaire enabled the researcher to get this total view of the respondents' assessment of the usefulness of the textile guide to assess garment quality online. Fourteen statements relating to the relative dimensions and indicators, identified in the first phase of the study, were used to make them more understandable for the respondents.
The quantitative research style ensured that the researcher was objective when viewing the respondents' assessment of quality without being actively involved. As many South African consumers seem to have a poor knowledge

of textile properties, a structured, self-administered questionnaire was the best option as it could be completed without being influenced by others.

The sample sizes for the two phases were both large enough (116 for the first phase and 200 for the last phase) for quantitative data collection. Although this method can be time-consuming to initiate, meaningful information can be acquired from many respondents in a relatively short time.

The statistical analysis of data, a characteristic of the quantitative research style, was adequate for the study as specific hypotheses were tested in the first phase of the study to determine which aspects should be included in a textile guide. This was used to achieve the sub-objectives stated for the first phase. In the second phase statistical methods were used to test the success of the textile guide developed in the second phase of the study.

The quantitative research style was suited to this study and a deductive research strategy was used. In a deductive research strategy one moves from an abstract, logical relationship among concepts towards concrete empirical evidence (Neuman, 2000, 49). This was judged to be an appropriate approach for the study and was successful because of the following reasons:

- The researcher used a cognitive and consumer behaviour theory as point of departure and could make logical deductions as a result, which enabled the researcher to develop the two questionnaires. The aspects measured by the first questionnaire regarding the cues used by respondents to assess the textile quality of garments and their ability to relate formal physical and performance properties of textiles to quality, were seen as relevant as there were responses to all the questions contained in the questionnaire. The same was true for the second questionnaire. There were therefore no questions that were judged irrelevant or unnecessary. Although the aim of the study was not to describe and explain the consumer behaviour, the theories used helped the researcher to understand and describe certain characteristics.

- Statistical methods were used to determine if the sub-objectives had been achieved. The statistical methods used and the boundaries set by the specific statistical tests, helped the researcher determine when the results were statistically significant.

- Connecting logical deductions, derived from the theory, to concrete evidence obtained from the results, solved the research problem. The importance the intrinsic textile properties when assessing quality was determined by looking at the percentage of respondents who used these cues and the arithmetic mean was used to determine overall importance of each cue. The same method was used to determine the importance of performance features when purchasing both formal and casual daywear. The importance of individual indicators of durability, comfort and ease of care, as well as the durability, comfort and ease of care ratings of samples were also indicated by the percentage of respondents that used them and the mean scores were used to indicate the overall importance of each feature. Two-way frequency tables were used to indicate which fabrics the respondents preferred for different garments. Percentages were used as indicator of how many respondents used the same rating. Statistical boundaries were set, which enabled the researcher to make logic deductions regarding the respondents' ability to relate formal physical properties of textiles to the performance and end-use serviceability.

7.3.1.1 Data collecting methods

A cover letter to explain the aim of the research accompanied the questionnaire that was sent to female staff members of the University of Pretoria via internal post. The other questionnaires and cover letters were handed out to respondents not employed by the University of Pretoria by willing colleagues, friends and other participants. In most cases all questions were answered; in a few cases one or two questions were left unanswered. By not being present, it was not possible to explain questions that caused

uncertainty, but as all respondents were adults who had tertiary education, the assumption was made that they would understand the questions. The questionnaire was also tested on a group of people with lower qualifications than the respondents, and where problems were encountered, the questions were adapted before they were given to the sample group.

The second questionnaire, the mock website containing the textile guide and instructions for use were distributed through the staff-intranet of the University of Pretoria and by using the snowball sampling technique for respondents not employed by the university.

A discussion of the validity of the data collecting techniques follows:

- **Structured questionnaire (first phase)**

This questionnaire used both closed and open questions. The closed questions were all answered, but all respondents did not react to the open questions. In Section A these questions were only used to get extra clarification regarding the aspects tested in the closed questions, and therefore it did not pose a problem if all the respondents did not answer them. Most of the open questions in section B were used in questions where more "specialised" information was required and where only respondents who had chosen a certain option were required to answer the other questions. (Here they did answer the open questions). The other open questions in Section B were, as in Section A, for extra clarification. In Section D respondents were required to give reasons for their choice after choosing a specific fabric sample for an end-use. Here there were more unanswered responses.

One of the questions in Section C could have been left out. The respondents were asked what they were willing to pay for different garments. Originally the researcher intended using these responses when compiling the textile guide, but because many respondents still seem to equate price to quality, it was decided that by adding price, this would once again be used as quality

indicator for assessing the styles on the website and one would therefore not be able to assess if the respondents used the textile information, relating to intrinsic quality related textile aspects, to compare the content of the websites.

- **Structured questionnaire (third phase)**

Here fourteen statements, related to intrinsic textile quality aspects (determined by the first phase of the study) were used to determine if the textile guide had been successful in facilitating the decision-making process. The same statements were used to evaluate the chosen South African website that the respondents were asked to compare to the website containing the guide. There were also a set of statements related to the design, technical aspects and credibility of the websites (once again the same set of statement was used to assess both websites).

Although this questionnaire (like the first one) was discussed with the statistical advisor, there are aspects that could be approved upon. If the respondents (of whom 82 % have not yet purchased garments online) were asked if they would consider doing so if similar textile information were to be supplied in future it would also have given a better insight into the success of the textile guide. Many of the “neutral” responses could be due to the fact that no matter how much textile information is supplied, these respondents still would not buy online, as shopping in a store is a pleasurable and relaxing experience as indicated by Jacobs’s findings (Jacobs, 2003:123).

7.3.1.2 Sample selection

Non-probability sampling techniques were used in both phases of the study. Purposive or judgemental sampling was once again recommended, as members of a specialised population were used in this study (Neuman, 2000:198). By implication this means that the results cannot be generalised to be applicable to the larger population. The results are only indicative of the

specific group tested. For follow-up studies it is recommended that random sampling be used, that the results of this study will be taken into consideration and that enough respondents are used to generalise the results. This would be possible if enough time, funds, trained fieldworkers and willing respondents were available.

7.3.1.3 Data analysis

No respondents were forced to take part in the study and, according to Mouton (1996: 145) willing respondents increase the reliability of the study. The data was analysed using acknowledged statistical tests, and both the questionnaires and methods that would be used to analyse them were discussed with a statistician.

7.3.2 Quality of the data

The quality of the data is evaluated by referring to validity and reliability.

7.3.2.1 Validity

- **Construct validity**

Construct validity is important during the process of conceptual analysis (Mouton, 1996: 117; Trochim, 2005:51).

- **Criterion-related validity**

Convergent validity of the Likert-type scales used in the study was established by determining Cronbach's alpha coefficient for internal consistency. All the alpha values exceeded 0.70, which indicates an acceptable internal consistency (Watson & Klassen, 2004).

- **Translation validity**

➢ **Face validity** has to do with items seeming to measure what they claim to. This does therefore not refer to what an instrument actually measures, but what it appears to measure (Babbie & Mouton, 2001:123; Neuman, 2000: 168). The measure therefore appears relevant to those who will complete it.

- In the case of the first questionnaire, the questions all relate to the functional and performance aspects of textiles used for apparel. One set of questions relates to the use of in-home shopping (catalogue or Internet) as method of shopping.
- In the second questionnaire all fourteen content statements related to textile information or the effect the supplied information had on decision-making. The other statements relate to design, technical aspects and reliability of the website.

➢ **Content validity** is concerned with adequacy and representativeness. To ensure this an adequate number of items that represent each concept and actually measure the concept were used (Babbie & Mouton, 2001:123; Neuman, 2000: 168).

- Once again the questions or statements used in both questionnaires, relate to the sub-objectives of the study.

- **Scale validation**

In this study Likert-type scales were used in both questionnaires. The first step was to define the concepts that were to be measured. In the first phase of the study different sets of potential scale items were created to determine the the cues used for quality rating and for determining the indicators of durability, comfort and ease-of-care, important care label information and end-use servicability of various textiles. For the final phase of the study Disagree-Agree respons scales were used. Both questionnaires were pre-tested by a group of experts. The internal validity

and reliability of both questionnaires were determined by calculating Cronbach's alpha coeffiecient. In the first questionnaire all the alpha values for the performance properties were greater than 0.70, which is an acceptable value for internal consistency. The Cronbach alpha coefficients of the statements relating to the content of the compared websites were also determined and values larger than 0.70 were obtained, which also indicates an acceptable internal reliability and validity (Gliem & Gliem, 2003; Watson & Klassen, 2004; Trochim, 2005: 111-112).

7.3.2.2 Reliability

According to Neuman (2000, 164) reliability is an indicator of dependability or consistency. It indicates the likelihood that a given measurement technique will repeatedly yield the same description of a given phenomenon (Mouton, 1996: 144). In this study applying the following strategies ensured reliability:

- The questions used in the questionnaires were predominantly closed questions
- The questionnaires were pre-tested
- The questionnaires could be completed in a relatively short time, were easy to understand and relevant
- A cover letter explaining the objective of the study accompanied both questionnaires
- Well-established methods of data collection were used. Standard statistical coding methods were also used.
- The consistency of the responses related to durability, comfort, ease-of-care, as well as type of information sought in the first questionnaire was determined by using Cronbach's alpha coefficient.
- The consistency of the responses related to content in the second questionnaire was also determined by using Cronbach's alpha coefficient.

- **Representative sampling**

According to Mouton (1996: 136), the key concept in sampling is that the sample should be representative of the chosen population. Only then can generalisations concerning the whole population be made. The sampling frame must be representative of the target population to prevent bias.

The sampling method used for the first part of the study was purposive (judgemental sampling). This is an acceptable sampling method when the researcher wants to select a wide variety of respondents to test the broad application of the questions (Neuman, 2000: 198; Babbie & Mouton, 2001: 166). As the first phase of this study can be seen as the preliminary phase to obtain enough information to develop a usable instrument (the textile quality assessment guide) this method is acceptable.

As this sampling technique results in samples of questionable representativeness, they are primarily used for exploratory studies, as is the case with this study.

Another purposive sampling technique, snowball sampling, was used in the final phase of the study. This method of sampling is appropriate, as it is an acceptable method to use when members of a specific population are difficult to locate. As still relatively few South African consumers purchase apparel on the Internet, this was judged an appropriate sampling method for this part of the study.

7.3.3 Achievement of sub-objectives and specific aims

To be able to solve the research problem as explained in Chapter 1 sub-objectives and specific aims were set for the study. Each sub-objective and specific aim was addressed in the questionnaires used in the study.

The results indicate that valuable data related to the sub-objectives and specific aims were collected. This data enabled the researcher to interpret the results and draw conclusions related to the different sub-objectives. The results, their interpretation and eventually the conclusions also made it possible to make recommendations to the apparel industry and apparel retailers (in particular those with an online presence).

From the discussion and interpretation of the results as well as the conclusions that were made, it is evident that the researcher successfully achieved the stated sub-objectives and specific aims.

Information that was obtained from the results can contribute to the existing theory on online consumer behaviour.

7.4 THE CONTRIBUTION OF THE STUDY TO EXISTING THEORY

The value of the quantitative research style used in this study is that it enables the researcher to quantify the data and to link the data to the specific concepts used in the study. The value of the research can be increased when the results are given meaning by linking them to the concepts of established theory related to the research.

The findings of this study can contribute to the following:

- Consumers' decision-making and apparel purchasing behaviour (in general and with special reference to the South African consumer)
- The specific problems that confront online apparel consumers
- Apparel retailing/ marketing on the Internet

7.4.1 Consumer decision-making and apparel purchasing behaviour

The way consumers think, the way they process information and the way they use this information, determine how decisions are made. These

decisions are preceded by a series of consecutive cognitive processes. The context within which this information is presented and the way consumers search for information can have a pronounced effect on how the information is interpreted, coded and processed (Fiske & Taylor, 1991: 348-350; Foxall & Goldsmith, 1994:27). The decision to purchase an apparel product online presupposes a decision where consumers use their cognitive structures (scripts, perceptions, expectations) to make the best possible decision (Erasmus, *et al.*, 2002; Jacobs, 2003:174). In a traditional retail setting apparel is usually assessed at the point of purchase. Due to a lack of knowledge or expertise, consumers are seldom able to make a judgement concerning in-use performance during pre-purchase evaluation of apparel products. The result is that they usually react to aesthetic stimuli that affect their emotions (Yoon & Kijewski, 1997; Brown & Rice, 1998:44, Kadolph, 1998:23; Fiore & Jin, 2003).

It is evident from the results and conclusions of this study that the career women in the research sample use textile related cues selectively when assessing quality, but have difficulty in relating the formal physical fibre and fabric properties as well as performance properties to quality. Although most consumers are mainly influenced by aesthetic properties, there are, however, a few who use certain durability and easy-care cues. Those that use these cues tend to look for visible garment properties to anticipate performance during use. In many cases the garment does not live up to expectations in post-purchase use and this usually results in dissatisfaction (Yoon & Kijewski, 1997; Brown & Rice, 1998:44, Kadolph, 1998:23). As consumers tend to lack the knowledge and expertise to assess all aspects relating to quality, they often have difficulty comparing products (Brown & Rice, 1998:45, Kadolph, 1998:23). When this happens they should ideally revert back to their existing apparel purchasing scripts. If these scripts are “incomplete” (as in the case of South African consumers who are not readily supplied with information), they react by choosing something that ‘looks expensive/ professional’ or that ‘feels right’; their emotions then become the prime source for judging the specific product (Jacobs, 2003:145-6 ; Lubbe, 2003:122 ; Kaiser *et al.,* 2005). The findings in both the first and third phase of the study confirm this and could

contribute to a better understanding of the use of scripts for online apparel purchases. With more experience and the presence of enough textile information and visual aids, this problem can be addressed as this will enable the online consumer to adapt the apparel decision-making script over time.

To ensure satisfied customers it is essential to provide them with information to assist them in their search for information related to a specific apparel product. Sound textile information, which purposely links functional garment properties to performance, would help the female apparel purchaser to compare and evaluate different products and enable them to make justifiable choices, which could contribute to greater satisfaction. The findings of this study contribute to the understanding of the South African career woman's need for more textile information to facilitate decisions when purchasing apparel, both in-store and online (PricewaterhouseCoopers, 2000, Jacobs, 2003:177; Choi, Lee, Lee & Subramani, 2004; De Klerk & Lubbe, 2007). This study provides data from a South African context and supplements the overall understanding of consumer decision-making based on research done mainly in a U.S. or European context.

7.4.2 The online apparel consumer and specific problems they encounter

In an online environment the consumer cannot touch and handle the apparel product and must rely on other means to assess the physical aspects that influence quality. The online consumer mainly relies on aesthetics and emotional responses when making purchase decisions. They have to rely heavily on visual sensations when evaluating a product (Fiore & Jin, 2003; Mc Cabe & Nowlis, 2003; Li *et al.*, 2003; Sasaki *et al.,* 2004). The lack of complete sensory information may constrain purchase decisions.

The study represents an important step in extending the general literature on buying behaviour to the context of online shopping. The Internet consumers must, even more than conventional shoppers, rely on their cognitive structures to make the best possible choice. The information for online

apparel consumers should be presented attractively, with visual features that allow a variety of easily accessible garment options. With additional applicable textile information, this could leave the shopper with a positive frame of mind, which would in turn facilitate decision-making.
Visual stimulation and communication through various visual merchandising techniques have been important aspects in traditional retailing. Visual merchandising is a way of product presentation that communicates product concepts to the customer in order to optimise sales (Li *et al.,* 2002 & 2003; Kerfoot *et al.,* 2003; McCabe & Nowlis, 2003; Choi *et al.*, 2004; Khakimdjanova & Park, 2005). The same principles apply for online product presentation. The results of this study show that online consumers are attracted to tastefully displayed apparel products online, even if the minimum additional information is supplied. Online shoppers can often only rely on information available through images on the screen to gather information of garment quality. These results are supported by other research studies (Jacobs, 2003: 191; Kaiser *et al.,* 2005; Khakimdjanova & Park, 2005; De Klerk, Jacobs & van Heerden, 2005).

It is also evident that more should be done to supply the online consumer with information related to the tactile aspects of textiles. This could be achieved by implementing modern technology like 3-D effects, movement, and draped fabric images to enhance the online consumer's virtual experience (Fiore & Jin, 2003; Li *et al.*, 2002 & 2003; McCabe & Nowlis, 2003). Once the consumer has a clear idea of the product features, this could also contribute to the adaptation of existing or development of new apparel purchasing scripts – in this way confidence to purchase online as well as post-purchase satisfaction may increase.

There is still a shortage of research regarding online consumer behaviour and apparel decision-making, especially in a South African context. As information is central to human effectiveness, it is essential to use the highly cognitive, information-laden environment of the internet to full effect. The findings of this study can contribute to this field of consumer behaviour and decision-making in the following ways:

In the first place the findings provide a better understanding of decision-making and consumer behaviour regarding the assessment of apparel quality online. The findings indicate that online consumers need more assistance in terms of textile properties to effectively make judgements regarding specific properties and assessment of quality. They also need more information regarding performance aspects to enable them to take the right decisions and prevent post-purchase dissatisfaction. These findings corroborate similar findings by other researchers (Kinkade *et al.,* 1998; Fiore & Jin, 2003; Sasaki *et al.,* 2004) and add to the body of knowledge on online consumer decision-making.

When confronted with new and unfamiliar experiences (such as purchasing online) people revert to their memory of stored information to create schemata (scripts) to help them cope with the new experience. New information is remembered in the context of an existing script, and may 'tune' or restructure the existing script to adapt to control the new situation (Jaillet, 2002; Perry, 2004). The findings of this study underline the importance of familiarising consumers (both online and in a traditional context) with specific quality aspects regarding apparel products. The findings also correlate with Jacobs's (2003: 190-192) findings concerning the use of scripts for online apparel purchases and add more insight into the use of scripts to address the problem of the unfamiliar retail environment as well as, for instance, the lack of tactile stimulation online.

7.4.3 Apparel retailing / marketing on the Internet

Retail and marketing managers may benefit from the results reported in this study. In the South African context the findings suggest that online shoppers need more information regarding textiles used for apparel products. As Constantinides (2002a &b) and Levenburg (2005) indicate, marketing strategies must frequently be re-evaluated and improved, new E-commerce strategies developed, and as competitors also use new technologies, the

online retail environment can create new opportunities to supply effective information that will attract and 'keep' customers (Gehrt & Yan, 2004). Retailers, who are creative and able to use new technology to make the online purchasing of apparel a more pleasurable and fun experience, could ensure that their websites are revisited. This could be beneficial to both consumer and retailer (Ashworth, Schmidt, Pioch & Hallsworth, 2006).

With regard to the findings of this study, it is of the utmost importance that e-tailers realise the challenge of developing visual merchandising techniques for the Internet. They should realise the importance of clear images, interactive pages as well as the supplying of sound product information. For retailers who want to increase their online sales, it is also important to be aware of consumers' inability to visualise the combination of garments. When designing or updating websites they could consider adding suggestions for the combination of garments or supply visuals of garments mixed and matched in different ways. It is also important to keep in mind that consumers expect the image of the online store to resemble the brick-and-mortar store, and e-tailers should bear this in mind when designing their websites. Online visual merchandising will also have an important effect on the consumer's psychological and behavioural outcomes (Kerfoot *et al.*, 2003).

It is important for marketers and e-tailers to understand the needs of the online consumer and pay attention to their use of scripts, their perceptions, expectations, perceived risks and advantages of this new shopping environment. If these aspects are attended to, and effectively addressed, it could be more profitable to marketers and retailers and put fashion marketers in a much better position to meet the needs of their customers. They would also be able to build their strategies on effective ways to attract customers from competitors. If they concentrate their efforts on generating favourable perceptions of the information and products supplied, they could increase the perception of enjoyment and decrease perceptions of risk (Choi *et al.,* 2004; Forsyth, Petee & Kim, 2005).

The findings of this study support the findings of similar research studies (Choi *et al,* 2004; Jacobs, 2003:191) and can assist apparel retailers who have an online presence to gain insight into the decision-making and buying behaviour of their target markets. This may assist them to improve their websites to attract more shoppers and induce them to purchase their products.

7.5 GENERAL RECOMMENDATIONS, LIMITATIONS OF THE STUDY AND RECOMMENDATONS FOR FUTURE STUDIES

Although the conclusions made in this study cannot be generalised to the broad population, certain recommendations can be made at this stage. The following aspects are addressed:

- The South African apparel industry and apparel retailers who have a web-presence
- Limitations of this study and recommendations for future related studies

7.5.1 Recommendations with regard to the apparel industry and apparel retailers in South Africa

Retailers and manufacturers should realise the importance of supplying textile information with all apparel products. More information regarding fibres and fabrics and their properties would help the consumer when comparing fabrics and garments during the decision-making process. Better labelling, as well as more information at the point of purchase should be supplied. If confronted with the correct information in the traditional store, the consumer will become familiar with these textile related aspects and will eventually use them as part of their apparel purchasing script. As indicated by Sasaki *et al.* (2004), it is easier to visualise familiar textiles and interesting surface characteristics. If the apparel consumer is more knowledgeable regarding the formal physical and performance aspects of textiles, they would also be more

confident to buy online and make sound purchase decisions in spite of not being able to handle the textiles.

Another aspect that could be looked into is the training of salespersons to provide good (if not expert) advice to customers who do not have textile knowledge. This would, in the long run, be beneficial to retailers with an online presence as this could also help to educate the consumer – and, as explained, more knowledgeable consumers make purchase decisions with more confidence, and will probably be more satisfied after post-purchase assessment.

It is of the utmost importance to supply the online apparel consumer with enough written information on fibre and fabric properties and how these properties relate to the performance during use, but online visual displays are also important. As the findings of this study indicated, the lack of good sensory information remains a problem and should be addressed in innovative ways. Khakimdjanova and Park (2005) suggest that viewing a garment from different angles or given extra information on mix-and-match possibilities would provide more information about the final use and look of the garment, and could reduce uncertainties about the consequences of buying a garment online.

Retailing has become more complex as it has had to meet demands of emerging technologies, as well as improve merchandising and online marketing. As new technologies develop, retailers will be faced with even greater challenges to stay competitive and should create and exploit opportunities to satisfy their online customers (Koontz & Gibson, 2002). E-tailers need to develop techniques that help shoppers ‘examine’ garments and give them the confidence to make sound decisions in the online environment. With more potential consumers gaining access to the Internet, it has become very important to study online consumer decision-making, also in terms of website design. As the Internet is an extremely dynamic environment, it is important to keep abreast of technological developments, but also to keep the expertise (or lack of it) in mind when planning and

redesigning websites in such a way that consumers are attracted and feel confident to purchase online. It is however also important not to overload the cognitive capacity of the consumer, which could frustrate in stead of help with decision-making (Xia & Sudharsham, 2002).

7.5.2 Limitations of the study and recommendations for future research

It should be noted that there are certain limitations to this research that also provide a basis for further research. Online shopping in South Africa is still a new phenomenon. The results of the study were based on responses of a sample of consumers of whom only 18 % have already purchased apparel online. If similar research was to be done, and only consumers who buy online included, the results could look different.

Another limitation is that the respondents were only asked to compare a mock website containing a textile guide to an existing South African website. If they were asked if they would consider buying online if this type of information were supplied, insight could have been obtained about their willingness to venture into this unfamiliar shopping environment.

The problem of supplying the consumer with a better idea of fabric hand could be addressed by using more than one continuum of formal texture qualities. Only one continuum was used in this study and it only addressed the draping quality of the different fabrics. Fiore and Kimle (1997: 163) adapted the KES system developed by Kawabata (Kawabata *et al.*, 1999) and included pliability, softness, stretchiness, compactness, smoothness, coolness, thickness, dullness, springiness, and harshness paired with their opposites at the other end of the continuum. By using all or selecting three to four paired properties, the consumer would have probably been able to make a better assessment of fabric handle.

The sample used in this study, unintentionally were predominantly white Afrikaans career women. As the latest survey of South African web users indicates that online buyers tend to be English speaking consumers an effort

should be made to include more English speaking respondents in future studies. This would to a certain extent attract more of the younger black South African consumers who also tend to fall in this category (Webchek: Archive – Online shopping trends, 2006). Although almost half of South African web users are aged between 25 and 44, the number of older web users is steadily increasing (10 % in 2002 to 16% in 2005) – studies using the older online consumer could show interesting results.

As little is yet known about the scripts of online apparel purchasers, research to determine how online apparel purchasers perceive and interpret the 'messages' supplied by apparel e-tailers, could help in the development of apparel retail websites. Stimuli, to which consumers could respond, could play a role in the establishment of online apparel purchasing scripts. This could help to overcome the resistance to use this relatively new shopping environment.

Finally, the aim of the study was to understand and describe the use of textile related cues by career women and to develop a textile guide that would help them in online decision-making. In spite of the limitations mentioned, and possibilities to improve on the information contained in the guide, the results of this study can be seen as a starting point to improve the South African consumers' online experience and provide them with more confidence to purchase online and be satisfied with these purchases.