

CHAPTER 7

RESEARCH RESULTS AND INTERPRETATION

7.1 INTRODUCTION

Chapter 6 encompassed a detailed discussion on research methodology applicable to the empirical research phase of the study. Chapter 7 will document the research results and the key findings based on the interpretation of these results.

The chapter will commence by providing details of the realisation rate, where after the results obtained will be discussed on a question-by-question basis that is based on the research questionnaire (Appendix 9). Questions will be grouped together in order to establish a more meaningful discussion.

The discussion of each question will include descriptive statistics, where after statistical techniques will be applied (where necessary) to draw inferences from the data.

Chapter 7 will be concluded by a discussion on the acceptance or rejection of the hypotheses formulated for the study (as defined in Chapter 5), based on the main findings drawn from the research results.

7.2 REALISATION RATE

The sampling process was detailed in Chapter 6. A total of 20 000 Internet users formed the sample frame, comprising four different strata. Strata one and two each comprised 5 000 ISP “X” (b) Internet users. Stratum one contained ISP “X” (b) Internet users who joined ISP “X” between 1 January 2000 and 31 December 2000, stratum two contained 5 000 users who joined between 1 January 2001 and 25 November 2001.

Both strata three and four each comprised 5 000 ISP “X” (a) Internet users. Stratum three contained users who joined ISP “X” between 1 January 1997 and 31 December 1999, while stratum four was comprised of users who joined ISP “X” between 1 January 2001 and 25 November 2001.

Twenty thousand e-mail messages to invite Internet users to participate in the study were distributed to ISP “X” (a) and ISP “X” (b) Internet users on 26 November 2001. Confirmation was received (from the ISP “X” server) that 19 996 e-mail messages had been delivered to ISP “X” (a) and ISP “X” (b) Internet users. The realisation rate from the sample frame, indicating the response rate at nine o’clock in the morning on each business day (ISP “X” personnel who assisted the researcher did not work over weekends) for the duration of the research project, is shown in Table 7.1.

TABLE 7.1: REALISATION RATE OF RESPONDENTS

Date	Day	Number of responses	Cumulative responses	Cumulative response rate
27 November 2001	Tuesday	554	554	2.77%
28 November 2001	Wednesday	220	774	3.87%
29 November 2001	Thursday	71	845	4.23%
30 November 2001	Friday	58	903	4.52%
3 December 2001	Monday	82	985	4.93%
4 December 2001	Tuesday	21	1 006	5.03%
5 December 2001	Wednesday	11	1 017	5.09%

It can be noted from Table 7.1 that the research was conducted over a ten day period (26 November 2001 - 5 December 2001). The reason why the responses were only accepted over a ten day period was based on the realised response rate. The responses received steeply declined from the third day of the empirical research period. An assumption was therefore made that if an Internet user had not reacted to an e-mail within ten days, the probability was very low that a meaningful number would respond after ten days.

The cumulative realised response rate is therefore 5.09%. It can be speculated that three possible reasons attributed to the relative low response rate. The first may be that respondents were reluctant to participate in the study due to the personal nature thereof (Spam e-mails often received by Internet users lead them to believe that their privacy is being invaded, possibly supporting this statement). A second possibility is that the main South African holiday season begins early December. Consequently, respondents could have been on leave and unable to receive e-mails. They may also have been extremely busy during this time of year and therefore unwilling to take time to complete the questionnaire. Lastly, respondents had to incur a cost (cost associated with time spent Online while completing the questionnaire) if they decided to participate in the research project.

Table 7.2 provides an overview of the most important demographic information of respondents who participated in the study. It is important to note that the percentage of respondents indicated in Table 7.2 refers to the percentage of respondents of the specified demographic variable.

TABLE 7.2: DEMOGRAPHIC VARIABLES OF RESPONDENTS WHO PARTICIPATED IN THE STUDY

Demographic Variable		Percentage of respondents
Gender:	Male	69.95%
	Female	30.05%
Age group:	Under 35 years	35.32%
	36-50 years	40.20%
	> 51 years and not specified	24.48%
Household language:	Afrikaans	38.90%
	English	56.22%
	Other languages	4.88%
Gross monthly household Income group:	Less than R 9 999	30.05%
	R 10 000 – R 19 999	31.24%
	R 20 000 and more	30.05%
	Not specified	8.66%

Demographic Variable		Percentage of respondents
Highest qualification:	School only	30.85%
	Diploma	25.17%
	Degree	43.98%
Geographic location:	Smaller towns and cities	20.40%
	Metropolitan cities	79.60%
Population group:	Whites	89.75%
	Other population groups	10.25%
Marital status:	Single	19.60%
	Living together	4.18%
	Married	68.46%
	Other marital status	7.76%
Active Internet users per Household:	1	34.13%
	2	42.99%
	3	14.53%
	4	6.07%
	More than 4	2.28%
People per household:	1	8.76%
	2	27.65%
	3	20.30%
	4	26.37%
	More than 4	16.92%

n = 1 005

To possibly determine if the findings from this study are representative of the total population, the demographic information from another primary research study (conducted among Internet users) will be considered. Webchek (1999: 3-9) reported the following demographic information:

- Gender:
 - Male: 60%
 - Female: 40%
- Age group
 - Under 34 years: 70%
 - 35-49 years: 18%
 - > 50 years: 12%

- Household language
 - Afrikaans: 16%
 - English: 77%
 - Other languages: 7%
- Household income
 - Less than R 9 999: 28%
 - R 10 000 to R 19 999: 38%
 - R 20 000 and more: 21%
 - Refusal/don't know: 13%
- Highest qualification
 - School only: 33% (including "some university")
 - University completed: 34%
 - Other post-school qualification: 32%
- Population group
 - White: 85%
 - Other population groups: 15%
- People per household
 - 1: 9%
 - 2: 16%
 - 3: 22%
 - 4: 31%
 - more than 4: 21%

From the demographic information reported in the Webchek study, it can be seen that gender, income group, highest qualification, population group and people per household correspond to the demographic information reported in this study. It could also be seen that language group, although showing a greater difference between the two studies, also reports the same trend, where English speaking respondents were the greater majority, followed by Afrikaans speaking respondents. Respondents speaking other languages represented the minority in both studies, were this study reported 4.88% and Webchek 7%.

The major difference between the two studies, in terms of demographic information, pertains to age groups. It is surmised that the difference is due to the methodology followed by Webchek, where respondents were randomly recruited via a telephone directory. Basic assumptions were that respondents had a personal computer at home, had access to the Web and accessed the Web at least one per month.

Considering the positive relationship between the demographic information, it can be concluded that the findings for this study is representative of the South African Internet population who access the Internet from home.

As stated in Chapter 6, it had to be determined if any of the responses for this study were incomplete. After analysing the responses received, it was found that 12 responses were not fully completed, where parts of either Section A or Section D of the questionnaire were missing.

The researcher approached ISP "X" to discuss the missing data from the 12 responses. No apparent reason could be found for the missing data and it was therefore decided, in accordance with the guidance provided in Chapter 6, to discard these 12 responses from further analysis. The research findings will therefore be based on 1 005 responses and an effective response rate of 5.03%.

7.3 EMPIRICAL RESEARCH RESULTS

The results from the research study will be discussed in this section, focusing on descriptive statistics (either graphically or in tabular form) and statistical tests performed to determine possible relationships between the various variables. Cross-tabulation analyses included in the chapter will only depict frequency data (Chapter 6 provided a detailed discussion on the manner in which cross-tabulation analyses are interpreted). Frequency data will be reported together with standard deviation values and mean scores, if applicable. The variable

numbers (V) ascribed to questions in the questionnaire will be shown and new variable numbers (where applicable), re-coded as VV, will be shown together with the rationale for deriving new variable numbers.

It is important to note that it was decided to - for significance testing - regard an exceedence probability of less than five percent (shown as <0.05) as significant. All exceedence probability values of less than five percent (i.e. 0.0000 to 0.0499) will therefore be accepted as indicative of a relationship between variables. Values equal to or greater than five percent (≥ 0.05) will be interpreted as being indicative of no relationship between variables.

The discussion will be structured according to the structure of the questionnaire (unless otherwise stated), namely Section A (Section 7.3.1), Sections B and C, grouped together for discussion purposes, (Section 7.3.2) and Section D (Section 7.3.3). Section 7.3 will be concluded by reporting on the findings from a logit analysis performed for the study.

7.3.1 Results from Section A of the questionnaire

Information obtained from Section A of the questionnaire will be used to categorise respondents. The categorised information will be used to draw comparisons between the different groups of respondents. For example, this information will be used to determine if (a) the period of Internet usage or (b) whether or not respondents have purchased Online before, significantly influence factors which respondents consider prior to purchasing via the Internet.

(a) Questions 1 and 2

Q1: From where do you gain access to the Internet?

Q2: From where do you most frequently access the Internet?

Respondents were asked to indicate all the locations at which they access the Internet (Q1) as well as from where they most frequently access the Internet (Q2). The results of these questions are shown in Table 7.3.

TABLE 7.3: PLACES OF INTERNET ACCESS

Place of access	Places of Internet access			Most frequent access		
	V	Frequency	Percentage	V	Frequency	Percentage
Home	V2	917	91.24%	V7.1	730	72.64%
Work	V3	491	48.86%	V7.2	268	26.66%
Internet Café	V4	17	1.69%	V7.3	0	0.00%
Academic Institution	V5	35	3.48%	V7.4	5	0.50%
Other	V6	11	1.09%	V7.5	2	0.20%

n = 1 005

As indicated in Table 7.3, the majority of respondents, when considering all the places from where they have access to the Internet, access the Internet from home (91.24%) and work (48.86%). Very few respondents indicated that they access the Internet from Internet Cafés (1.69%), academic institutions (3.48%) and from “other” places (1.09%). The majority of Internet users (99.30%) predominantly access the Internet from home (72.64%) and/or work (26.66%).

- (A1) The main finding from question 1 is that 91.24% of respondents who participated in the study access the Internet at home and 48.86% at work.
- (A2) A main finding derived from question 2 is that 72.64% of respondents who participated in the study most frequently access the Internet from home and 26.66% most frequently from work.

(b) Question 3

Q3: For how long have you been an Internet user? (considering all the Internet Service Providers you have subscribed to)

As stated in Chapters 5 and 6, the period of Internet usage is of extreme importance to the study in order to determine whether or not the length of

Internet usage influences other variables. The responses to the period of Internet usage are depicted in Table 7.4.

TABLE 7.4: PERIOD OF INTERNET USAGE

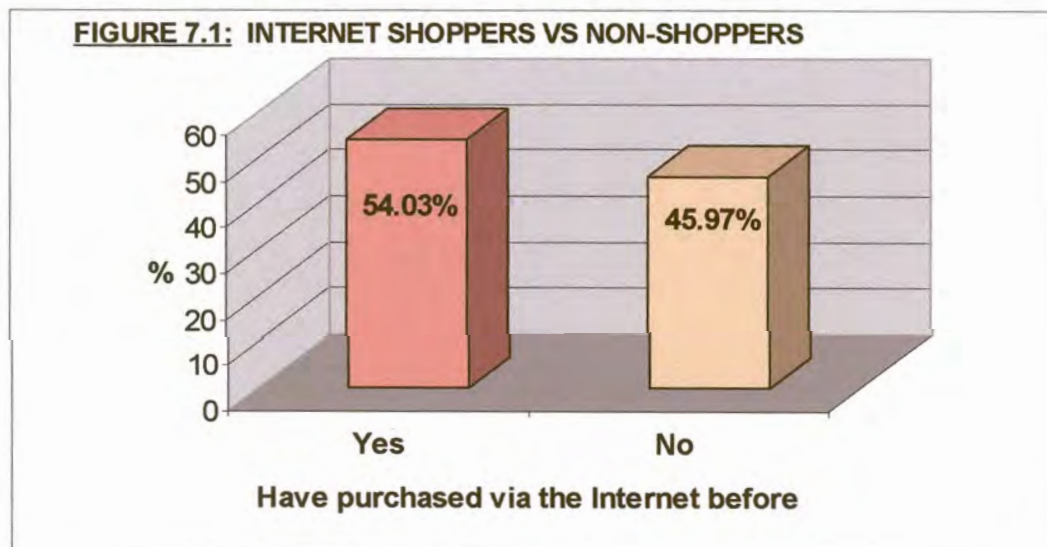
Period of Internet usage	V	Freq.	Percentage	Cumulative frequency	Cumulative percentage
Less than 1 year	V8.2	113	11.24%	113	11.24%
1 year to less than 2 years	V8.3	133	13.23%	246	24.48%
2 years to less than 3 years	V8.4	205	20.40%	451	44.88%
3 years to less than 4 years	V8.5	198	19.70%	649	64.58%
4 years or more	V8.6	356	35.42%	1 005	100%

(A3) A main finding derived from Table 7.4 is that 55.12% (V8.5 and V8.6)[(198+356)/1005] of respondents have been using the Internet for more than three years.

(c) Question 11

Q11: Have you ever purchased products or services via the Internet before? (excluding banking services)

As mentioned in Chapter 6, it was decided to keep banking services as a separate product and service category when determining whether or not respondents have purchased via the Internet before. The results to question 11 are shown in Figure 7.1, indicating whether or not respondents have purchased via the Internet before.



(A4) A main finding from Figure 7.1 is that 54.03% of respondents who participated in the study have purchased products or services via the Internet before, while 45.97% have not purchased Online before.

Further analysis between the period of Internet usage and whether or not respondents have purchased via the Internet before is now possible, since the period of Internet usage and the number of Internet shoppers and non-Internet shoppers have been reported.

A cross-tabulation between V8 (period of Internet usage) and V21 (V21.1 - have purchased via the Internet before; V21.2 – have not purchased Online before) was performed to determine whether or not a relationship exists between the two variables.

Table 7.5 portrays the results from the cross-tabulation and chi-square analysis, performed to determine whether or not a relationship exists between the period of Internet usage and the decision to purchase via the Internet.

As discussed in Chapter 6, the chi-square analysis provides the frequency (the actual recorded frequency) together with the expected frequency for each cell. The analysis also provides the chi-square value for the cell together with a number of percentage indicators.

TABLE 7.5: RELATIONSHIP BETWEEN INTERNET SHOPPERS, NON-INTERNET SHOPPERS AND PERIOD OF INTERNET USAGE

Period of Internet usage		Purchase via the Internet		
Frequency	V	Yes	No	Total
Expected		1	2	
Cell chi-square				
Percent				
Row percent				
Column percent				
Less than 1 year	8.2	23 61.05 23.78 2.29 20.35 4.24	90 51.95 27.88 8.96 79.65 19.48	113 11.24
1 year to less than 2 years	8.3	50 71.86 6.65 4.98 37.59 9.21	83 61.14 7.82 8.26 62.41 17.97	133 13.23
2 years to less than 3 years	8.4	100 110.76 1.05 9.95 48.78 18.42	105 94.24 1.23 10.45 51.22 22.73	205 20.40
3 years to less than 4 years	8.5	112 106.98 0.24 11.14 56.57 20.63	86 91.02 0.28 8.56 43.43 18.61	198 19.70
4 years or more	8.6	258 192.35 22.41 25.67 72.47 47.51	98 163.65 26.34 9.75 27.53 21.21	356 35.42
Total	(Frequency) (Percentage)	543 54.03	462 45.97	1,005 100.00
Statistics for table of V8 by V21:		DF	Value	Probability
Chi-square		4	117.60	<.0001

The **expected frequency** for the cell containing respondents who **have purchased via the Internet** and who have been using the Net for **less than one year** (with the **frequency being 23**) is calculated as follows: **[543]** (number of

respondents who have purchased Online before) / 1 005 (total number of respondents) = 0.5403] x 113 (number of respondents who have been using the Net for less than one year) = 61.05.

The “percent”-values are calculated for each cell and represent the percentage of the total respondents represented in the specific cell: [23 (frequency) / 1005 (total number of respondents)] x 100 = 2.29%. The cell chi-square is the chi-square value calculated for the specific cell.

The row percent portrays the percentage of respondents for the specific row, calculated as: [23 (frequency) / 113 (row total)] x 100 = 20.35%

The column percentage indicates the percentage of respondents, applicable to the specific column, calculated as: [23 (frequency) / 543 (column total)] x 100 = 4.24%

The following insights can be derived from Internet shoppers who have been using the Net for less than one year and who have purchased Online before (by considering the explanation above):

- 23 respondents have been Online for less than one year and have purchased via the Internet before;
- these respondents represent 2.29% of all respondents on which this analysis is applicable;
- 20.35% of respondents who have been using the Internet for less than one year have purchased Online before (and 79.65% have therefore not purchased Online); and
- Internet shoppers who have been Online for less than one year represent 4.24% of all Internet shoppers.

The cross-tabulation analysis also indicates the degrees of freedom (DF), chi-square value (calculated for the table and not for a specific cell) and computed probability value.

It can, from the explanation, be derived that the data portrayed in the cross-tabulation table can be calculated by using the frequency (actual number of respondents) data.

Due to the considerable amount of information contained in the cross-tabulation table, it was decided to show in further discussions only the “frequency” and “total” figures, since the remainder of the data can be calculated by using this information.

(A5) A main finding that can be derived from Table 7.5 is that as the period of Internet usage increases, the percentage of Internet shoppers increases (percentage shoppers, per time period, over the five specified periods: 20.35%; 37.59%; 48.78%; 56.57% and 72.47%) and the percentage of non-Internet shoppers decreases (percentage non-shoppers, per time period, over the five periods: 79.65%; 62.65%; 51.22%; 43.43% and 27.53%).

Although clear differences can be noted when comparing whether or not respondents have purchased via the Internet before when considering the different time periods, it is important to determine whether or not the differences can be supported statistically.

The chi-square test was used for significance testing and yielded a value of 117.60 with an exceedence probability of <0.0001 . When applying the decision-rule that an exceedence probability value of <0.05 is an indication of significance, it can be concluded that the two variables portrayed in Table 7.5 (V8 and V21) are related.

Two more main findings can be derived from Table 7.5 and the discussion above, namely that:

- (A6) Seventy-two percent (258/356) of respondents who have been using the Internet for four years and more have purchased via the Internet before, while only 20.35% (23/113) who have been using the Internet for less than one year had purchased Online before; and**
- (A7) The period of Internet usage significantly influences whether or not respondents have purchased products or services via the Internet.**

(d) Questions 13 and 14

Q13: Do you consider purchasing products and/or services via the Internet in the future?

Q14: Would you consider to purchase via the Internet if more, non-Internet based, South African businesses also offer products and services on the Internet? (e.g. Game Stores, OUTsurance, Musica)

Although questions 13 and 14 formed part of Section B of the questionnaire, the results of these questions will be discussed together with the results from Section A for the purposes of classifying respondents according to their consideration to purchase via the Internet in the future.

Respondents who indicated that they had not purchased via the Internet before (Q11 – V21.2) were requested to indicate whether or not they considered purchasing via the Internet in the future (Q13). The results of question 13 are portrayed in Table 7.6.

TABLE 7.6: NON-INTERNET SHOPPERS: CONSIDERATION TO PURCHASE VIA THE INTERNET IN THE FUTURE

Consider purchasing via the Internet in the future	V	Frequency	Percentage
Yes	V46.1	297	64.29%
No	V46.2	165	35.71%
Total		462	100%

(A8) The main finding derived from question 13 is that the majority of respondents (64.29%) who have not purchased via the Internet before, consider purchasing via the Net in the future.

Further analysis of the findings will show whether or not there is a relationship between the length of time that one is an Internet user and the decision to purchase via the Internet in the future. The analysis, portraying findings from a cross-tabulation analysis, is shown in Table 7.7.

TABLE 7.7: RELATIONSHIP BETWEEN NON-INTERNET SHOPPERS CONSIDERING TO PURCHASE VIA THE INTERNET AND PERIOD OF INTERNET USAGE

Period of Internet usage	V	Consider purchasing via the Internet		Total
		Yes V46.1	No V46.2	
Less than 1 year	V8.2	50	40	90
1 year to less than 2 years	V8.3	54	29	83
2 years to less than 3 years	V8.4	67	39	106
3 years to less than 4 years	V8.5	58	28	86
4 years or more	V8.6	68	29	97
Total	Frequency	297	165	462
	Percentage	64.29%	35.71%	100%

Table 7.7 demonstrates that the majority of respondents, across all time periods, consider purchasing via the Internet in the future. When comparing the ratio between respondents who consider purchasing versus those who don't, with specific reference to the period of Internet usage, it can be derived that respondents using the Internet for less than one year [55.56% (50/90)] are least

inclined to shop on the Internet and those who have been Online for four years and more [70.10% (68/97)] are most inclined to shop on the Net in the future.

As opposed to the findings from the cross-tabulation that compared current shoppers to non-shoppers, the cross-tabulation portrayed in Table 7.7 shows no linear increase or decrease in either the respondents who consider purchasing or those who do not consider purchasing via the Internet in the future when taking the specified time periods into consideration. It is therefore important to consider the results from a chi-square test to determine whether or not a significant difference exists between the two variables.

The chi-square test performed for Table 7.7 (V8 by V46) resulted in a value of 5.04 and an exceedence probability of 0.2832.

It can therefore be concluded that there is no relationship between the period of Internet usage (V8) and the intention to purchase via the Internet in the future (V46). This conclusion can be drawn on the basis of considering the decision-rule whereby a probability value of <0.05 is an indication of significance.

Three main findings can be drawn from this discussion, namely that:

- (A9) Respondents who have not purchased via the Internet before and have been using the Internet for less than one year (55.56%) are least likely to purchase Online and those who have been Online for four years and more (70.10%) are most likely to purchase via the Net in the future;**
- (A10) The period of Internet usage does not significantly influence non-Internet shoppers' decision to purchase products and services via the Internet in the future; and**
- (A11) Eighty-four percent (840 respondents / 1 005 participants in the study) of respondents indicated that either they have purchased via**

the Internet before (543 respondents)(54.03%) or consider purchasing via the Internet in the future (297 respondents)(29.55%).

Those respondents who, after reading question 13, did not consider purchasing via the Internet in the future (Q13 – V46.2) were requested to indicate whether or not they would consider purchasing via the Internet in the future if more South African businesses offered products and services on the Net . Question 14 of the questionnaire was posed to respondents (who have not purchased via the Internet before - V21.2 – and those who are not considering to purchase in the future - V46.2) to determine whether or not they would consider purchasing via the Internet if more South African businesses offered products and services on the Net (V47). Table 7.8 portrays the findings of question 14, where respondents were requested to indicate their willingness to consider purchasing from South African businesses on the Net.

TABLE 7.8: NON-INTERNET SHOPPERS: CONSIDERATION TO PURCHASE VIA THE INTERNET IN THE FUTURE IF MORE SOUTH AFRICAN BUSINESSES SELL ON THE NET

Consider purchasing via the Internet in the future from South African businesses	V	Frequency	Percentage
Yes	V47.1	74	44.85%
No	V47.2	91	55.15%
Total		165	100%

(A12) A main finding from question 14 (in Table 7.8) is that 44.85% of respondents who recorded that they will not purchase in the future, would consider purchasing via the Internet if more, non-Internet based, South African businesses offer products and services via the Net.

Table 7.9 depicts the findings from a cross-tabulation analysis executed to determine whether or not a relationship exists between the period of Internet usage and the decision to purchase via the Internet if more South African businesses offered products and services via the Net.

TABLE 7.9: RELATIONSHIP BETWEEN PERIOD OF INTERNET USAGE AND NON-INTERNET SHOPPERS CONSIDERING TO PURCHASE VIA THE INTERNET IF MORE SOUTH AFRICAN BUSINESSES SELL ON THE NET

Period of Internet Usage	V	Consider purchasing Online if more South African businesses sell via the Net		Total
		Yes V47.1	No V47.2	
Less than 1 year	8.2	16	24	40
1 year to less than 2 years	8.3	14	15	29
2 years to less than 3 years	8.4	16	23	39
3 years to less than 4 years	8.5	15	13	28
4 years or more	8.6	13	16	29
Total	Frequency	74	91	165
	Percentage	44.85%	55.15%	100%

From the cross-tabulation analysis it can be observed that a greater percentage of respondents across all time periods (with the exception of respondents who have been Online for three years to less than four years) indicated that they would not consider purchasing via the Internet in the future, irrespective whether more South African businesses offered products and services on the Net.

The chi-square test for significance was performed for Table 7.9 to determine if a relationship exists between the period of Internet usage (V8) and the decision to purchase via the Net if more South African businesses offered products and services Online (V47). The test produced a value of 1.64 and an exceedence probability of 0.8026. Applying the decision rule that a probability figure of <0.05 would be accepted, it can be derived that there is not a relationship between V8 (period of Internet usage) and V47 (considering to purchase, should more South African businesses offer products and services via the Internet).

Two main findings can be derived from the discussion, namely that:

- (A13) The period of Internet usage does not significantly influence the decision to purchase via the Internet if more non-Internet based South African businesses offered products and services via the Internet.**

(A14) Almost ninety-one percent (914 respondents / 1 005 participants) of all respondents indicated that they have purchased via the Internet before or that they consider doing so in the future [543 have purchased – V21.1 and 371 consider purchasing in the future while 74 would purchase if more South African businesses offer products and services Online – V47.1, and 297 consider purchasing in the future irrespective whether more South African businesses sell Online – V46.1].

(e) Questions 4, 5a and 5b

Q4: How many Internet Service Providers have you subscribed to in the past?

Q5a: For how long are you subscribed to your current Internet Service Provider?

Q5b: Do you subscribe to more than one Internet Service Provider?

The findings from questions 4, 5a and 5b are shown in Table 7.10 to Table 7.12.

TABLE 7.10: NUMBER OF INTERNET SERVICE PROVIDERS SUBSCRIBED TO IN THE PAST (Q4)

Number of ISPs subscribed to	V	Frequency	Percentage	Cumulative frequency	Cumulative percentage
1 ISP	V9.2	499	49.65%	499	49.65%
2 ISPs	V9.3	327	32.54%	826	82.19%
3 ISPs	V9.4	126	12.54%	952	94.73%
4 ISPs	V9.5	32	3.18%	984	97.91%
5 or more ISPs	V9.6	21	2.09%	1 005	100%

(A15) A main finding derived from Table 7.10 is that 49.65% of respondents have subscribed to only one Internet Service Provider (ISP)(V9.2), while 2.09% of respondents have subscribed to five or more ISPs (V9.6).

TABLE 7.11: PERIOD SUBSCRIBED TO CURRENT ISP (Q5)

Period subscribed to ISP	V	Freq.	Percentage	Cumulative frequency	Cumulative percentage
Less than 1 year	V10.2	320	31.84%	320	31.84%
1 year to less than 2 years	V10.3	227	22.59%	547	54.43%
2 years to less than 3 years	V10.4	211	21.00%	758	75.42%
3 years to less than 4 years	V10.5	143	14.23%	901	89.65%
4 years or more	V10.6	104	10.35%	1 005	100%

(A16) A main finding illustrated in Table 7.11 is that 75.42% of respondents have been subscribed to their current ISP for less than three years.

TABLE 7.12: MULTIPLE SUBSCRIPTIONS TO INTERNET SERVICE PROVIDERS (Q5a)

Subscribe to more than one ISP	V	Frequency	Percentage	Cumulative frequency	Cumulative percentage
Yes	V11.1	141	14.03%	141	14.03%
No	V11.2	864	85.97%	1 005	100%

(A17) The main finding from Table 7.12 is that 85.97% of respondents currently subscribe to only one ISP (V11.2).

(f) Question 6

Respondents were requested to indicate the extent to which they agreed or disagreed (where a rating of “1” represented “totally agree” and a rating of “7” represented “totally disagree”) with statements concerning views regarding the Internet. The responses, expressed as mean scores, are indicated in Table 7.13.

Table 7.13 also shows the probability values that realised from a two-sample t-test that was performed to determine if there is a significant difference between Internet shoppers and non-shoppers with regard to their views of the Internet.

TABLE 7.13: VIEWS REGARDING THE INTERNET

Statement	V	Mean	Standard deviation	Probability value
I view the Internet as a general information source	V12	1.89	1.21	0.0401
I view the Internet as a specific source of product and service related information	V13	2.56	1.51	0.0158
I view the Internet as a communication tool	V14	1.76	1.16	0.1971
I view the Internet as a buying channel	V15	4.52	1.83	0.4067
I view the Internet as an entertainment medium	V16	3.94	1.93	0.3117

n = 1 005

It should be noted that, according to Diamantopoulos & Schlegelmilc (2000: 184), the two-sample t-test is used to compare means of two groups (in this case Internet shoppers and non-shoppers). Dillon, Madden & Firtle (1987: 469) add that the t-test is the most commonly used approach to test whether the observed means from two independent samples differ enough to conclude that the populations are statistically different.

Four main findings can be derived from Table 7.13, namely that:

- (A18) Viewing the Internet as a communication tool (V14) was the view most agreed with as shown by a mean value of 1.76. Respondents least agreed with the view that the Internet can be regarded as a buying channel (V15 - mean score of 4.52);
- (A19) The standard deviation for the statement that the Internet can be viewed as a communication tool (V14) was the lowest (1.16) for all the statements, leading to the conclusion that respondents were most homogeneous on the view that the Internet can be viewed as a communication medium. Viewing the Internet as an entertainment medium (V16) had the highest standard deviation (1.93), indicating that responses to the view that the Internet can be seen as an entertainment medium were most heterogeneous;

(A20) From the probability values (considering the decision-rule that a value of 0.05 will be regarded as significant) it can be derived that Internet shoppers differ significantly from non-shoppers when viewing the Net as a general information source (V12)(probability value of 0.0401) and as specific source of product and service related information (V13)(probability value of 0.0158); and

(A21) There is not a significant difference between Internet shoppers and non-shoppers with regard to viewing the Internet as a communication tool (V14)(probability value of 0.1971), as a buying channel (V15)(probability value of 0.4067) and as an entertainment medium (V16)(probability value of 0.3117).

(g) Questions 7, 8, 9 and 10

Q7. Do you use Internet banking?

Q8. Are you considering using Internet banking facilities in the future?

Q9. For how long have you been using Internet banking?

Q10. How frequently do you/do you think you will use Internet banking?

Questions 7 to 10 of the questionnaire were aimed at determining respondents' Internet banking activities. The findings from these questions can be viewed in Tables 7.14 to 7.17.

TABLE 7.14: USAGE OF INTERNET BANKING SERVICES (Q7)

Status of Internet banking usage	V	Frequency	Percentage
Currently use Internet banking services	V17.1	664	66.07%
Don't use Internet banking service	V17.2	341	33.93%
Total		1 005	100%

(A22) The main finding deduced from question 7 (V17) is that 66.07% of respondents who participated in the study use Internet banking services (V17.1).

TABLE 7.15: POTENTIAL FUTURE INTERNET BANKING USERS (Q8)

Status of Internet banking usage	V	Frequency	Percentage
Consider using Internet banking	V18.1	223	65.40%
Don't consider using Internet banking	V18.2	118	34.60%
Total		341	100%

(A23) The main finding from Table 7.15 is that 65.40% of respondents who do not use Internet banking services, are considering making use thereof in the future.

TABLE 7.16: PERIOD USING INTERNET BANKING SERVICES (Q9)

Period	V	Freq.	Percentage	Cumulative frequency	Cumulative percentage
Less than 1 year	V19.2	204	30.72%	204	30.72%
1 year to less than 2 years	V19.3	193	29.07%	397	59.79%
2 years to less than 3 years	V19.4	141	21.23%	538	81.02%
3 years to less than 4 years	V19.5	61	9.19%	599	90.21%
4 years or more	V19.6	65	9.79%	664	100%

Two main findings can be derived from Table 7.16 namely, that:

(A24) Thirty-one percent of respondents who have been using Internet banking services, have been using it for less than one year;

(A25) Eighty-one percent of respondents have been using Internet banking services for less than three years.

The findings of question 10, shown in Table 7.17, represent a combination of results from current Internet banking users as well as respondents who are considering using Internet banking services in the future.

TABLE 7.17: FREQUENCY OF USE/CONSIDER TO USE INTERNET BANKING SERVICES (Q10)

Period	V	Frequency	Percentage	Cumulative frequency	Cumulative percentage
Daily	V20.1	213	23.99%	213	23.99%
Weekly	V20.2	445	50.11%	658	74.10%
Monthly	V20.3	225	25.34%	883	99.44%
Annually	V20.4	5	0.56%	888	100%

(A26) A main finding derived from Table 7.17 is that 23.99% of respondents use or consider using Internet banking services daily (V20.1), 50.11% weekly (V20.2), 25.34% monthly (V20.3) and 0.56% annually (V20.4).

Although Internet banking services are not portrayed in either the objectives or hypotheses of this study, it represents a main product and service category (and Internet activity – 66.07% of respondents participating in the study use Internet banking services and an additional 65.40% of current non-Internet banking users consider doing so in the future) and warrants further analysis.

It will therefore be determined whether or not there are relationships between Internet banking services and other variables used in the study. Firstly a cross-tabulation analysis will be conducted to determine whether or not a relationship exists between Internet banking services and whether or not respondents have purchased via the Net. Secondly, a cross-tabulation analysis will be used to determine whether or not there is a relationship between the length of time using Online banking services and whether or not respondents purchase Online.

TABLE 7.18: RELATIONSHIP BETWEEN INTERNET BANKING USERS AND INTERNET SHOPPERS

Use Internet Banking Services	V	Purchase via the Internet		Total
		Yes V21.1	No V21.2	
Yes	V17.1	418	246	664
No	V17.2	125	216	341
Total	Frequency	543	462	1 005
	Percentage	54.03%	45.97%	100%

It can be derived from Table 7.18 that the cell containing the most respondents [41.59% (418/1 005)] represents those who use Internet banking services and have also purchased products or services via the Internet before. It can also be derived that 21.49% (216/1 005) of respondents neither use Internet banking

services nor do they shop Online. The remainder of the respondents [36.92% (371/1 005)] either use Internet banking services but don't purchase Online [24.48% (246/1 005)] or don't use Online banking but purchase via the Internet [12.44% (125/1 005)].

The chi-square test for significance was performed for Table 7.18 (V17 by V21) and yielded a value of 62.72, resulting in an exceedence probability of <0.0001. It can be concluded that there is a relationship between Internet banking services and the decision to purchase via the Internet.

Four main findings can be derived from the discussion, namely that:

- (A27) The majority of respondents (41.59%) who use Internet banking services also shop Online (418/1005);**
- (A28) More than 24% (246/1005) of respondents use Internet banking services but don't purchase Online and 12.44% (125/1005) shop on the Net but don't use Internet banking;**
- (A29) More than 21% (216/1005) of respondents neither use Internet banking services nor do they shop Online; and**
- (A30) The use of Internet banking services significantly influences whether or not respondents have purchased products or services via the Internet before.**

The findings from a cross-tabulation analysis, shown in Table 7.19, will be used to determine whether there is a relationship between the period using Internet banking services and whether or not respondents have purchased via the Internet before.

TABLE 7.19: RELATIONSHIP BETWEEN THE DECISION TO PURCHASE VIA THE INTERNET AND PERIOD USING INTERNET BANKING SERVICES

Period using Internet banking services	V	Purchase via the Internet		Total
		Yes V21.1	No V21.2	
Less than 1 year	V19.2	87	117	204
1 year to less than 2 years	V19.3	126	67	193
2 years to less than 3 years	V19.4	105	36	141
3 years to less than 4 years	V19.5	48	13	61
4 years or more	V19.6	52	13	65
Total	Frequency	418	246	664
	Percentage	62.95%	37.05%	100%

A deduction from Table 7.19 is that the greatest percentage of respondents who have been using Internet banking services, and do not purchase via the Internet [17.62% (117/664)], have been using Internet banking services for less than one year (V19.2).

For all other time periods, there are more respondents who use Internet banking services that have also purchased Online than there are non-shoppers. The ratio between Internet shoppers and non-shoppers, when considering the period using Internet banking services, are (percentage of shoppers indicated first): one year to less than two years [65.28% (126/193) vs. 34.72% (67/193)]; two years to less than three years [74.47% (105/141) as opposed to 24.53% (36/141)]; three years to less than four years [78.69% (48/61) vs. 21.31% (13/61)] and four years and more [80% (52/65) compared to 20% (13/65)].

It is clear that as the period of time that respondents have used Internet banking services increases, the percentage of respondents who have purchased via the Net becomes greater. Although there seems to be a relationship between the two variables, it is important to test if such a relationship is statistically significant.

The chi-square test for significance was performed, rendering a value of 59.97 and a resulting exceedence probability of <0.0001. It can be derived, based on

the decision-rule, that a relationship exists between the period using Internet banking services and whether or not respondents have purchased Online.

Three main findings can be derived from the discussion, namely that:

- (A31) As the period of using Internet banking services increases, the percentage of respondents who use Online banking services and purchase via the Net increases;**
- (A32) Eighty percent (52/65) of respondents who have been using Online banking services for four years and more, have also purchased via the Internet before; and**
- (A33) The period of time using Internet banking services significantly influences whether or not respondents have purchased products and services via the Internet before.**

7.3.2 Results from Sections B and C of the questionnaire

Section B of the questionnaire was directed at respondents who had not purchased products or services via the Internet before, while Section C had to be completed by respondents who had previously purchased Online.

Since many of the findings from non-shoppers will be compared (and statistically tested) with data of Internet shoppers, the discussion in this section will cover frequency data and resulting statistical tests based on findings from questions pertaining to Sections B and C of the questionnaire.

(a) Questions 12 and 18

Q12 and Q18: Please indicate how important the factors listed below are to you when deciding whether or not to purchase via the Internet?

Question 12 was applicable to non-Internet shoppers only. By listing 24 statements that respondents had to rate on the importance thereof when

deciding to purchase via the Net, it was attempted to determine whether there were any underlying factors that respondents, who do not purchase Online, consider when deciding whether to purchase on the Internet.

The same question and statements were listed in question 18 for Internet shoppers. By using factor analyses, it was attempted to determine if there are differences between Internet shoppers and non-shoppers regarding the factors they consider when deciding whether or not to purchase via the Internet.

The factor analyses will be discussed once the realised mean values for each of the 24 statements, for both Internet shoppers and non-shoppers, are determined and discussed.

Table 7.20 provides the mean values and standard deviations recorded for questions 12 and 18. It should be noted that a rating of “1” was regarded as “extremely important” and a rating of “7” as “not important at all”. In addition, Table 7.20 provides the probability values derived from applying t-tests to determine if significant differences exist between Internet shoppers and non-shoppers when considering the importance of the 24 statements, reflecting Internet users’ considerations prior to purchasing Online.

The four statements that were rated as most important (based on the lowest mean scores) by *non-Internet shoppers* when deciding whether or not to purchase Online are: implications of providing credit card details (V24)(mean score of 1.38); how secure Internet payment methods are (V45)(mean score of 1.44); credibility of the seller(V25)(mean score of 1.55) and after-sales service (V37)(mean score of 1.65). The four least important considerations by *non-shoppers* were: don’t have a credit card (V44)(mean score of 4.33); safety of shopping from home (V40)(mean score of 3.50); ease of purchasing via the Internet (V43)(mean score of 3.10) and convenience of purchasing from home (V42)(mean score of 3.09).

TABLE 7.20: MEAN SCORES FOR STATEMENTS CONSIDERED WHEN DECIDING WHETHER OR NOT TO PURCHASE ONLINE

Statement	Non-Internet shoppers (n = 462)			Internet shoppers (n = 543)			Probability value
	V	Mean	Standard deviation	V	Mean	Standard deviation	
The possible invasion of my privacy	V22	1.75	1.43	V125	2.01	1.55	0.0067
Providing my personal information to others	V23	1.66	1.31	V126	1.92	1.49	0.0037
Implications of providing my credit card details	V24	1.38	1.15	V127	1.54	1.19	0.0265
Credibility of the seller	V25	1.55	1.07	V128	1.51	1.01	0.5647
Concerned that goods purchased via the Internet will not be received	V26	2.02	1.34	V129	2.48	1.48	0.0000
Goods may be damaged while shipped (in transit) or when delivered	V27	2.43	1.61	V130	2.99	1.63	0.0000
The price of products or services offered via the Internet	V28	2.69	1.64	V131	2.55	1.53	0.1513
Brand name of products or services offered via the Internet	V29	2.82	1.72	V132	2.86	1.58	0.7494
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	V30	2.26	1.54	V133	2.53	1.61	0.0065
The availability of prices on Internet sites	V31	2.27	1.52	V134	1.63	1.05	0.0000
Guarantees offered by Internet sellers	V32	1.71	1.05	V135	1.78	1.12	0.2887
Exchange/returns policies offered by Internet sellers	V33	1.80	1.28	V136	1.81	1.18	0.8966
Ability to understand how to use the Internet/purchase via the Internet	V34	2.45	1.84	V137	2.50	1.70	0.6248
Importance of "touching and feeling" products prior to purchase	V35	2.59	1.76	V138	3.69	1.64	0.0000
The range of products/services offered from individual sellers on the Internet	V36	2.69	1.68	V139	2.72	1.46	0.7730
After sales service	V37	1.65	1.20	V140	1.94	1.35	0.0003
Personal/individual attention	V38	2.60	1.76	V141	3.12	1.75	0.0000
The time between purchasing and receiving goods	V39	2.24	1.46	V142	2.20	1.31	0.6099
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	V40	3.50	2.08	V143	3.55	2.06	0.6765
Knowledge of the seller	V41	2.18	1.47	V144	2.42	1.46	0.0107
Convenience of purchasing from home	V42	3.09	1.91	V145	2.36	1.53	0.0000
Ease of purchasing via the Internet	V43	3.10	1.90	V146	2.22	1.40	0.0000
Don't have a credit card	V44	4.33	2.53	V147	4.88	2.33	0.0003
How secure Internet payment methods are	V45	1.44	1.10	V148	1.58	1.21	0.0659

The four most important considerations by **Internet shoppers** when deciding to purchase via the Internet are: credibility of the seller (V128)(mean score of 1.51); implications of providing credit card details (V127)(mean score of 1.54); how

secure Internet payment methods are (V148)(mean score of 1.58) and availability of prices on Internet sites (V134)(mean score of 1.63). The three most important considerations of non-shoppers are shared with shoppers namely: implications of providing credit card details; credibility of the seller; and how secure Internet payment methods are - with only the fourth being different.

The four least important considerations by *Internet shoppers* were: don't have a credit card (V147)(mean score of 4.88); importance of "touching and feeling" products prior to purchase (V138)(mean score of 3.69); safety of purchasing from home (V143)(mean score of 3.55) and personal/individual attention (V141)(mean score of 3.12). Both Internet shoppers and non-shoppers agreed on two of the four least important considerations, namely don't have a credit card and safety of shopping from home.

From the standard deviation values listed in Table 7.20, it can be seen that *non-shoppers* were most homogeneous (based on a standard deviation of 1.05) with V32 (guarantees offered by Internet sellers). Non-shoppers were most heterogeneous (standard deviation of 2.53) with V44 (don't have a credit card), followed by V40 (safety of purchasing from home) with a standard deviation of 2.08. *Internet shoppers* were most homogeneous regarding V128 (credibility of the seller) with a standard deviation of 1.01. Internet shoppers were, as with non-shoppers, most heterogeneous with the statement: "don't have a credit card" (V147) with a standard deviation of 2.33 and V143 (safety of purchasing from home) with a standard deviation of 2.06.

From Table 7.20 it can also be seen that, with the exception of six listed statements, non-Internet shoppers rated most of the statements as being of greater importance to them than respondents who have purchased via the Net before. The six exceptions are: credibility of the seller (V25); the price of products or services offered on the Net (V28); the availability of prices on Internet sites (V31); the time between purchasing and receiving goods (V39);

convenience of purchasing from home (V42) and ease of purchasing via the Internet (V43).

Table 7.20 also reveals two differences between shoppers and non-shoppers regarding the importance of the listed statements. The first difference is that respondents who have purchased Online before, consider the ease of purchasing via the Internet far more important than non-shoppers (V146/V43)(mean value of 2.22 compared to 3.10). The second difference is that Internet shoppers rate “touching and feeling” products prior to purchase far less important than non-shoppers (V138/V35)(mean value of 3.69 compared to 2.59). Although there seems to be differences between Internet shoppers and non-shoppers when considering whether or not to purchase via the Internet, it is important to consider the probability values (shown in Table 7.20) to determine whether or not the differences are statistically significant.

Considering the decision rule, whereby probability values < 0.05 will be regarded as significant, it can be concluded from Table 7.20 that, with the exception of nine statements, there is a significant difference between Internet shoppers and non-shoppers when considering the importance of the 24 listed statements that these users consider when deciding to purchase via the Net.

The nine exceptions are: credibility of the seller (V25/V128); the price of products or services offered via the Internet (V28/V131); brand name of products or services offered via the Internet (V29/V132); guarantees offered by Internet sellers (V32/V135); exchange/return policies offered by Internet sellers (V33/V136); ability to understand how to use the Internet/purchase via the Internet (V34/V137); the range of products/services offered from individual sellers on the Internet (V36/V139); the time between purchasing and receiving goods (V39/V142) and safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)(V40/V143).

Although the findings above highlight significant differences between Internet shoppers and non-shoppers for specific statements, it is important to consider the t-test results when all the statements are considered. The exceedence probability value from the t-test, when considering all 24 statements, is 0.0000.

(BC1) The main finding from the test for significance is that there is a significant difference between the statements Internet shoppers and non-shoppers consider when deciding whether or not to purchase products and services via the Internet.

Considering the significant difference, the remainder of Section 7.3.2 (a) will be devoted to factor analyses performed to determine the underlying factors Internet shoppers and non-shoppers ,as well as the factors Internet shoppers across all time periods, consider when deciding whether or not to purchase via the Internet.

Principal factor analysis was used to conduct the analyses and the Varimax method of rotation was applied. As stated in Chapter 6, only factors with eigenvalues greater than one were extracted. The labelling of factors identified through factor analysis requires a judgement on the part of the researcher, therefore introducing a measure of subjectivity to the interpretation of any factor analysis. It is therefore important to decide which factor loadings are to be considered and which not, when conducting the analysis.

Chapter 6 indicated that factor loadings greater than 0.35 can be considered when conducting a factor analysis. In an attempt to reduce the subjectivity associated with factor analysis, it was decided that only factor loadings equal to or greater than 0.50 will be considered to determine the underlying factors.

When discussing the results from the factor analyses, the computed Cronbach's alpha values will be reported. Cronbach's alpha (or coefficient alpha) represents a measure of internal consistency reliability (Malhotra, 1996: 305) and its value varies between 0 and equal to 1, with higher numbers indicating greater reliability (Bagozzi, 1994: 18). For exploratory research a Cronbach's alpha greater than

0.60 is desired, although values greater than 0.70 is preferred (Bagozzi, 1994: 18). It should also be noted that a Cronbach's alpha value of 0.60 or less generally indicates unsatisfactory internal consistency reliability (Malhotra, 1996: 305). Based on the theoretical perspective, in this study a Cronbach's alpha greater than 0.70 will be considered as an indication of internal consistency reliability.

Since Section B of the questionnaire was directed at non-Internet shoppers, it was decided that factors identified for non-Internet shoppers will be labelled "B". The factors identified for Internet shoppers will be labelled "C" (Section C of the questionnaire was applicable to respondents who have purchased Online before).

It should be noted that it was decided to categorise the 24 listed statements used to conduct the factor analyses with the stages of the consumer decision-making process. By doing so, it will be determined if the factors (or at least statements) can be linked to some of the decision-making stages. Each table pertaining to factor analyses will indicate (in a column labelled as Dec. stage) the stage of the decision-making process that can be associated with each statement. Although being subjective, it was decided to categorise the 24 statements with the stages of the decision-making process discussed in Chapter 3. The legend ascribed to the decision-making stages, identified for the 24 statements, are: search (S); pre-purchase alternative evaluation (PP); purchase (P) and post-purchase evaluation (PE). It will be noted that need recognition is not covered by the 24 statements and will therefore be excluded from the legend.

(i) Factor analysis results for non-Internet shoppers

Table 7.21 depicts the rotated factor matrix for the 24 statements that non-Internet shoppers consider when deciding whether or not to purchase via the Internet.

TABLE 7.21: ROTATED FACTOR MATRIX FOR NON-INTERNET SHOPPERS

Statement	Dec. stage	V	Factor		
			B1	B2	B3
The possible invasion of my privacy	S&P	V22	0.14	0.01	0.67
Providing my personal information to others	S&P	V23	0.13	-0.03	0.76
Implications of providing my credit card details	P	V24	0.08	0.07	0.70
Credibility of the seller	PP	V25	0.34	0.09	0.38
Concerned that goods purchased via the Internet will not be received	P	V26	0.51	0.07	0.25
Goods may be damaged while shipped (in transit) or when delivered	P	V27	0.62	0.13	0.15
The price of products or services offered via the Internet	PP	V28	0.59	0.18	0.04
Brand name of products or services offered via the Internet	S&PP	V29	0.62	0.19	0.10
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V30	0.64	0.15	0.02
The availability of prices on Internet sites	PP	V31	0.61	0.20	0.08
Guarantees offered by Internet sellers	PP&PE	V32	0.65	0.14	0.17
Exchange/return policies offered by Internet sellers	PP&PE	V33	0.66	0.13	0.19
Ability to understand how to use the Internet/purchase via the Internet	S	V34	0.46	0.18	0.12
Importance of "touching and feeling" products prior to purchase	PP	V35	0.34	-0.04	0.23
The range of products/services offered from individual sellers on the Internet	PP	V36	0.49	0.35	0.10
After sales service	PP&PE	V37	0.52	0.21	0.23
Personal/individual attention	PP&PE	V38	0.37	0.26	0.25
The time between purchasing and receiving goods	PP&PE	V39	0.54	0.30	0.21
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V40	0.26	0.67	0.06
Knowledge of the seller	S&PP	V41	0.39	0.31	0.20
Convenience of purchasing from home	PP&P	V42	0.11	0.95	0.03
Ease of purchasing via the Internet	PP&P	V43	0.20	0.86	0.04
Don't have a credit card	PP	V44	0.18	0.32	0.21
How secure Internet payment methods are	P	V45	0.16	0.14	0.48
Eigenvalues			6.81	1.88	1.27
Percentage of variance			55.47%	15.82%	10.54%
Cumulative percentage			55.47%	71.29%	81.83%

n = 462 (Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

Cronbach's alpha computed for the instrument items of the factor analysis is 0.896, indicating a relatively high internal consistency reliability.

Three factors (labelled B1 to B3), applicable to respondents who have not purchased Online before, were identified in Table 7.21. Factor B1 comprised nine, B2 and B3 three variables respectively. The realised eigenvalues for factors B1, B2 and B3 were 6.81; 1.88; and 1.27 respectively.

The percentage of variance explained by each factor is shown as 55.47% for factor B1; 15.82% for factor B2 and 10.54% for factor B3. Of particular importance is that the cumulative percentage (providing a summary measure that shows how much of the total variance is explained in the relationships between the 24 variables) explained by the three factors amounts to 81.83%, which is considered acceptable for the purpose of factor analysis.

Factor identification

As mentioned above, three factors were identified in Table 7.21 for non-Internet shoppers. The three factors will be analysed and discussed in more detail below.

Factor B1

Factor B1 comprised the following nine variables:

Statement	Dec. stage	V	Loading
Exchange/return policies offered by Internet sellers	PP&PE	V33	0.66
Guarantees offered by Internet sellers	PP&PE	V32	0.65
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V30	0.64
Brand name of products or services offered via the Internet	S&PP	V29	0.62
Goods may be damaged while shipped (in transit) or when delivered	P	V27	0.62
The availability of prices on Internet sites	PP	V31	0.61
The price of products or services offered via the Internet	PP	V28	0.59
The time between purchasing and receiving goods	PP&PE	V39	0.54
After sales service	PP&PE	V37	0.52
Concerned that goods purchased via the Internet will not be received	P	V26	0.51

(Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

It seems as though a number of variables listed for factor B1 can be grouped together. Firstly, exchange/return policies (V33), guarantees offered (V32) and after sales service (V37) are indicative, as highlighted by the decision-making stages, of pre-purchase evaluations of after-sales support offered by Internet sellers.

Secondly, the time between purchasing and receiving goods (V39), the fact that goods may be damaged while shipped (in transit) or when delivered (V27) and concerns that goods purchased via the Internet will not be received (V26) can be grouped under concerns regarding the delivery of purchased goods.

Thirdly, the price of products or services offered (V28), additional cost associated with purchasing via the Net (V30) and the availability of prices on Internet sites (V31) can be grouped under pre-purchase evaluation of costs associated with Internet purchases.

It is therefore suggested that factor B1 comprises three underlying concepts, namely pre-purchase evaluation of after-sales support offered by Internet sellers (V32, V33 and V37), concerns regarding the delivery of purchased goods (V39 and V27) and pre-purchase evaluation of costs associated with Internet purchases (V28, V29, V30 and V31). The brand name of products and services (V29) most probably represents the search for and evaluation of brands offered Online.

It is the convention to label factors with a collective word/s. In this study the results indicate that aspects loading as factors are ostensibly diverse. It has therefore been decided to use a descriptor instead of a label containing all the aspects. This will prevent “losing” important aspects under an “umbrella” label. The descriptor will include the pre-dominant stage in the consumer decision-making process as well as the relevant aspects in the loading.

Descriptor: Factor B1

Considering the underlying concepts, **factor B1 (and relevant statements) is predominantly in the pre-purchase evaluation stage of the consumer decision-making process and consists of the following aspects: brands and after-sales support offered by Internet sellers, concerns regarding the delivery of purchases and costs associated with Internet purchases.**

Factor B2

Factor B2 contained three variables, namely:

Statement	Dec. stage	V	Loading
Convenience of purchasing from home	PP&P	V42	0.95
Ease of purchasing via the Internet	PP&P	V43	0.86
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V40	0.67

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase)

As opposed to the nine variables identified for factor B1, factor B2 comprises only three variables. Both variables V40 and V42 (safety of purchasing from home and convenience of purchasing from home) bring the home as central focus point while V43 focuses on the ease of purchasing via the Internet.

Descriptor: Factor B2

Considering the three identified variables (together with the decision-stages), **factor B2 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consist of the following aspects: the safety, ease and convenience of purchasing from home.**

Factor B3

The following variables constitute factor B3:

Statement	Dec. stage	V	Loading
Providing my personal information to others	S&P	V23	0.76
Implications of providing my credit card details	P	V24	0.70
The possible invasion of my privacy	S&P	V22	0.67

(Legend: S = Search; P = Purchase)

As with factor B2, factor B3 identified three variables, namely V23, V24 and V22. The three variables clearly indicate concerns regarding divulging personal information and credit card details and invasion of privacy, possibly applicable with search and purchase activities in the indicated decision-stages.

Descriptor: Factor B3

Factor B3 (and relevant statements) is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: privacy and security concerns in the search and purchase decision-making stages.

From the previous discussion Table 7.22 below summarises the factors identified for respondents who have not previously purchased via the Internet.

TABLE 7.22: FACTORS APPLICABLE TO NON-INTERNET SHOPPERS

Descriptor	Percentage of variance	Cumulative percentage
Factor B1 is predominant of the pre-purchase evaluation stage of the consumer decision-making process and consists of the following aspects: brands and after-sales support offered by Internet sellers, concerns regarding the delivery of purchases and costs associated with Internet purchases	55.47%	55.47%
Factor B2 is predominant of the pre-purchase evaluation and purchase stages of the decision-making process and consist of the following aspects: the safety, ease and convenience of purchasing from home	15.82%	71.29%
Factor B3 is predominant of the search and purchase stages of the decision-making process and consist of the following aspects: privacy and security concerns in the search and purchase decision-making stages	10.54%	81.83%

As can be seen from Table 7.22, the three factors identified for non-Internet shoppers when deciding whether or not to purchase via the Internet explained 81.93% of the total variance for the 24 variables.

(BC2) The main finding derived from the factor analysis is that non-Internet shoppers consider three factors when deciding to purchase via the Internet, namely: factor B1 is predominantly in the pre-purchase evaluation stage of the consumer decision-making process and consists of the following aspects: brands and after-sales support offered by Internet sellers, concerns regarding the delivery of purchases and costs associated with Internet purchases; factor B2 is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: safety, ease and convenience of purchasing from home; and factor B3 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: privacy and security concerns in the search and purchase decision-making stages.

(ii) Factor analysis results for Internet shoppers

The rotated factor matrix for the 24 statements that Internet shoppers consider when deciding to purchase via the Internet is shown in Table 7.23.

It can be seen from Table 7.23 that three factors were identified for Internet shoppers, labelled as factors C1, C2 and C3. Factor C1 comprises twelve, C2 four and C3 two variables. The realised eigenvalues for each of the three factors are 6.54, 1.82 and 1.27 respectively. Factor C1 accounted for 52.95% of the total variance, 15.31% at C2 and 10.82% at C3. The three factors cumulatively accounted for 79.08% of the total variance.

TABLE 7.23: ROTATED FACTOR MATRIX FOR INTERNET SHOPPERS

Statement	Dec. stage	V	Factor		
			C1	C2	C3
The possible invasion of my privacy	S&P	V125	0.19	0.76	0.03
Providing my personal information to others	S&P	V126	0.07	0.84	0.08
Implications of providing my credit card details	P	V127	0.09	0.78	0.03
Credibility of the seller	PP	V128	0.42	0.31	0.10
Concerned that goods purchased via the Internet will not be received	P	V129	0.47	0.32	-0.004
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.57	0.31	0.03
The price of products or services offered via the Internet	PP	V131	0.52	0.06	0.05
Brand name of products or services offered via the Internet	S&PP	V132	0.55	0.07	0.13
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.51	0.18	0.08
The availability of prices on Internet sites	PP	V134	0.50	0.08	0.19
Guarantees offered by Internet sellers	PP&PE	V135	0.63	0.21	0.19
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.62	0.17	0.18
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.58	0.22	0.06
Importance of "touching and feeling" products prior to purchase	PP	V138	0.38	0.17	-0.14
The range of products/services offered from individual sellers on the Internet	PP	V139	0.56	0.01	0.18
After sales service	PP&PE	V140	0.59	0.19	0.13
Personal/individual attention	PP&PE	V141	0.52	0.15	0.11
The time between purchasing and receiving goods	PP&PE	V142	0.55	0.07	0.24
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	0.30	0.12	0.43
Knowledge of the seller	S&PP	V144	0.48	0.17	0.25
Convenience of purchasing from home	PP&P	V145	0.13	0.04	0.90
Ease of purchasing via the Internet	PP&P	V146	0.18	0.04	0.82
Don't have a credit card	PP	V147	0.23	-0.02	0.05
How secure Internet payment methods are	P	V148	0.29	0.53	0.11
Eigenvalues			6.54	1.82	1.27
Percentage of variance			52.95%	15.31%	10.82%
Cumulative percentage			52.95%	68.26%	79.08%

n = 543 (Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

Cronbach's alpha computed for the instrument items of the factor analysis portrayed in Table 7.23 is 0.891, indicating a relatively high internal consistency reliability.

Factor identification

As mentioned above, three factors were identified for Internet shoppers. The three factors will be analysed and discussed in more detail below.

Factor C1

Twelve variables were identified that constitute factor C1, namely:

Statement	Dec. stage	V	Loading
Guarantees offered by Internet sellers	PP&PE	V135	0.63
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.62
After sales service	PP&PE	V140	0.59
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.58
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.57
The range of products/services offered from individual sellers on the Internet	PP	V139	0.56
Brand name of products or services offered via the Internet	S&PP	V132	0.55
The time between purchasing and receiving goods	PP&PE	V142	0.55
The price of products or services offered via the Internet	PP	V131	0.52
Personal/individual attention	PP&PE	V141	0.52
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.51
The availability of prices on Internet sites	PP	V134	0.50

(Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

A number of different concepts can be distinguished from the variables that comprise factor C1. The first identifiable concept may be considered to be service, comprising guarantees offered (V135), exchange/return policies (V136), personal/individual attention (V141) and after sales service (V140). A second identifiable concept is brands offered and cost associated with purchasing via the

Net, comprising the range of products offered via the Net (V139), brand name of products offered (V132), the availability of prices on Internet sites (V134), the prices of products and services offered via the Net (V131) as well as additional costs associated with Online purchases (V133).

The delivery process forms the third concept, comprising the time between ordering and receiving goods (V142) and the possibility that goods may be damaged while shipped (V130). The final identified variable (ability to understand how to use the Internet/purchase via the Internet)(V137), seems to focus, considering all other variables identified for this factor, on the individual's ability to find important information (search) that is needed when deciding to purchase from a sellers' Website.

Descriptor: Factor C1

Considering the identified decision-making stages and the discussion above, **factor C1 (and relevant statements) is predominantly in the pre-purchase and post-purchase evaluation stages of the decision-making process and consists of the following aspects: the ability to find and evaluate information on brands, product ranges, costs associated with Internet purchases and after-sales service offered by Internet sellers.**

Factor C2

Factor C2 comprised the following four variables:

Statement	Dec. stage	V	Loading
Providing my personal information to others	S&P	V126	0.84
Implications of providing my credit card details	P	V127	0.78
The possible invasion of my privacy	S&P	V125	0.76
How secure Internet payment methods are	P	V148	0.53

(Legend: S = Search; P = Purchase)

The central theme that emerges from the first three identified variables (V125, V126 and V127) identifying factor C2, is the security and privacy aspect

associated with Internet purchases. The fourth variable (how secure Internet payment methods are – V148), specifically highlights the security aspect associated with Internet payment methods.

Descriptor: Factor C2

Considering the four variables (together with the identified decision-stages), **factor C2 (and relevant statements) is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: security and privacy concerns when searching and purchasing on the Internet.**

Factor C3

Factor C3 comprised only two variables, namely:

Statement	Dec. stage	V	Loading
Convenience of purchasing from home	PP&P	V145	0.90
Ease of purchasing via the Internet	PP&P	V146	0.82

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase)

The two identified variables lean heavily towards the convenience aspect of shopping via the Internet from home and also manifest the ease of shopping on the Net.

Descriptor: Factor C3

Considering the decision-stages and these two variables, **factor C3 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of purchasing from home.**

Table 7.24 provides a summary of the three descriptors identified for Internet shoppers discussed in the previous paragraphs together with the percentage of variance explained by the factors.

TABLE 7.24: FACTORS APPLICABLE TO INTERNET SHOPPERS

Descriptor	Percentage of variance	Cumulative percentage
Factor C1 is predominantly in the pre-purchase and post-purchase evaluation stages of the decision-making process and consists of the following aspects: the ability to find and evaluate information on brands, product ranges, costs associated with Internet purchases and after-sales service offered by Internet sellers	52.95%	52.95%
Factor C2 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: security and privacy concerns when searching and purchasing on the Internet	15.31%	68.26%
Factor C3 is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of purchasing from home	10.82%	79.08%

As can be seen from Table 7.24, the three factors identified for Internet shoppers when deciding whether or not to purchase via the Internet explained 79.08% of the total variance of the 24 variables.

(BC3) The main finding derived from the factor analysis is that Internet shoppers consider three factors when deciding to purchase via the Internet, namely: factor C1 is predominantly in the pre-purchase and post-purchase evaluation stages of the decision-making process and consists of the following aspects: the ability to find and evaluate information on brands, product ranges, costs associated with Internet purchases and after-sales service offered by Internet sellers; factor C2 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: security and privacy concerns when searching and purchasing on the Internet; and factor C3 is

predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of purchasing from home.

The findings from the factor analyses, applicable to Internet shoppers and non-shoppers, need to be compared to determine if there is a difference, regarding factors considered when deciding to shop Online, between the two groups. This can be done by comparing the factors (and descriptors) identified for the two groups.

Non-Internet shoppers (from Table 7.22)	Internet shoppers (from Table 7.24)
<ul style="list-style-type: none"> • Factor B1 is predominantly in the pre-purchase evaluation stage and consists of the following aspects: brands and after-sales support offered by Internet sellers, concerns regarding the delivery of purchases and costs associated with Internet purchases • Factor B2 is predominantly in the pre-purchase evaluation and purchase stages and consists of the following aspects: the safety, ease and convenience of purchasing from home • Factor B3 is predominantly in the search and purchase stages and consists of the following aspects: privacy and security concerns in the search and purchase decision-making stages 	<ul style="list-style-type: none"> • Factor C1 (and relevant statements) is predominantly in the pre-purchase and post-purchase evaluation stages and consists of the following aspects: the ability to find and evaluate information on brands, product ranges, costs associated with Internet purchases and after-sales service offered by Internet sellers • Factor C2 (and relevant statements) is predominantly in the search and purchase stages and consists of the following aspects: security and privacy concerns when searching and purchasing on the Internet; • Factor C3 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages and consists of the following aspects: ease and convenience of purchasing from home

An observation from the comparison is that Internet shoppers and non-shoppers consider security and privacy concerns when searching and purchasing on the Internet as an important factor when deciding to purchase via the Internet. A second observation is that although a similarity is identified, Internet shoppers

rate security and privacy as the second most important factor, while non-shoppers identify it as the third most important concern.

A third observation is that the third factor identified by Internet shoppers is the need recognition for the Internet by considering the ease and convenience of purchasing from home that it offers, while the second factor identified by non-shoppers is the need for the Internet as a safe and convenient purchasing medium from home. Although, at a first glance, it may appear as though these factors are identical, it can be surmised that they are not. The factor identified by Internet shoppers emphasises the need for ease and convenience as opposed to safety and convenience for non-shoppers.

A final observation is that the most important factor (based on the percentage of variance explained by this factor), identified for Internet shoppers and non-shoppers is different. Non-shoppers regard pre-purchase evaluation of brands and after-sales support offered by Internet sellers, concerns regarding the delivery of purchases and costs associated with Internet purchases, as the main factor considered when deciding to purchase Online. Internet shoppers regard the pre- and post-purchase evaluation of information on brands, product ranges, costs associated with Internet purchases and after-sales service offered by Internet sellers as the primary factor.

Based on the main finding earlier in the chapter that identified a significant difference between Internet shoppers and non-shoppers with regards to the importance ascribed to each statement (BC1) and the discussion above, the following main finding may be derived:

(BC4) There is an observable difference between the factors Internet shoppers and non-shoppers consider when deciding whether or not to purchase via the Internet.

For the purpose of the study, as defined by the formulated hypotheses, a number of factor analyses will be performed to determine if there are differences between the factors that Internet shoppers consider when a comparison is based on the period of Internet usage.

It should be noted that the responses from Internet shoppers who have been using the Internet for less than one year and responses of shoppers using the Net for between one year to less than two years had to be combined. The reason for combining the responses is based on the fact that only 23 respondents who have been using the Internet for less than one year, have purchased via the Net before and 50 who have been using the Net for one year to less than two years have purchased Online.

A concern was that based on the number of respondents, the findings of the analysis would be questionable. When combining the two time periods, the analysis was conducted by using responses from 73 Internet shoppers, considered to be sufficient to extract meaningful results. The factor analysis will therefore consider Internet shoppers who have been using the Net for less than two years.

(iii) Factor analysis results for Internet shoppers who have been using the Internet for less than two years

Table 7.25 shows the rotated factor matrix applicable to Internet shoppers using the Net for less than two years.

Cronbach's alpha computed for the instrument items of the factor analysis is 0.90, indicating a relatively high internal consistency reliability.

TABLE 7.25: ROTATED FACTOR MATRIX FOR INTERNET SHOPPERS USING THE NET FOR LESS THAN TWO YEARS

Statement	Dec. stage	V	Factor			
			D1	D2	D3	D4
The possible invasion of my privacy	S&P	V125	0.05	0.12	0.71	0.24
Providing my personal information to others	S&P	V126	-0.09	0.15	0.80	0.37
Implications of providing my credit card details	P	V127	-0.02	0.03	0.84	0.26
Credibility of the seller	PP	V128	0.69	0.20	0.05	0.14
Concerned that goods purchased via the Internet will not be received	P	V129	0.43	0.13	0.46	-0.11
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.37	0.20	0.52	-0.05
The price of products or services offered via the Internet	PP	V131	0.52	0.24	0.17	-0.09
Brand name of products or services offered via the Internet	S&PP	V132	0.46	0.46	0.18	0.12
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.36	0.35	0.38	0.02
The availability of prices on Internet sites	PP	V134	0.73	0.14	0.06	0.18
Guarantees offered by Internet sellers	PP&PE	V135	0.65	0.21	-0.01	0.24
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.62	0.23	0.03	0.25
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.38	0.35	0.05	0.28
Importance of "touching and feeling" products prior to purchase	PP	V138	0.23	0.36	0.43	-0.13
The range of products/services offered from individual sellers on the Internet	PP	V139	0.17	0.54	0.22	0.20
After sales service	PP&PE	V140	0.07	0.70	0.23	-0.00
Personal/individual attention	PP&PE	V141	0.05	0.79	0.05	-0.02
The time between purchasing and receiving goods	PP&PE	V142	0.24	0.68	0.11	0.17
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	0.17	0.17	0.07	0.55
Knowledge of the seller	S&PP	V144	0.23	0.51	0.10	0.29
Convenience of purchasing from home	PP&P	V145	0.08	0.11	0.20	0.85
Ease of purchasing via the Internet	PP&P	V146	0.25	0.04	0.17	0.75
Don't have a credit card	PP	V147	0.24	0.38	-0.01	0.13
How secure Internet payment methods are	P	V148	0.30	0.25	0.15	0.25
Eigenvalues			6.98	2.19	1.79	1.41
Percentage of variance			47.23%	14.63%	11.58%	8.78%
Cumulative percentage			47.23%	61.86%	73.44%	82.22%

n = 73 (Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

Table 7.25 identified four factors (labelled D1 to D4) that Internet users who have been using the Internet for less than two years considered when deciding to purchase via the Net. Factors D1 and D2 each comprise five, D3 four and D4 two variables. The realised eigenvalues for the four factors are 6.98, 2.19, 1.79 and 1.41 respectively.

Factor D1 explained 47.23% of the total variance (14.63% for D2, 11.58% for D3 and 8.78% for D4). Of importance is that the four factors cumulatively account for 82.22% of the total variance.

Factor identification

Factor D1

The following variables constitute factor D1:

Statement	Dec. stage	V	Loading
The availability of prices on Internet sites	PP	V134	0.73
Credibility of the seller	PP	V128	0.69
Guarantees offered by Internet sellers	PP&PE	V135	0.65
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.62
The price of products or services offered via the Internet	PP	V131	0.52

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase; PE = Post-purchase alternative evaluation)

Factor D1 identified five variables, namely V134, V128, V135, V136 and V131. The variables highlight issues associated with sellers on the Net (specifically credibility and guarantees and exchange policies offered) as well as pricing related aspects. Guarantees and exchange policies could possibly also support the credibility of Internet sellers.

Descriptor: Factor D1

Considering the decision-stages and the identified variables, **factor D1 (and relevant statements) is predominantly in the pre- and post-purchase evaluation stages of the decision-making process and consists of the**

following aspects: credibility of Internet sellers by considering their prices, guarantees and exchange policies offered.

Factor D2

Factor D2 comprised the following variables:

Statement	Dec. stage	V	Loading
Personal/individual attention	PP&PE	V141	0.79
After sales service	PP&PE	V140	0.70
The time between purchasing and receiving goods	PP&PE	V142	0.68
The range of products/services offered from individual sellers on the Internet	PP	V139	0.54
Knowledge of the seller	S&PP	V144	0.51

(Legend: S = Search; PP = Pre-purchase alternative evaluation; PE = Post-purchase alternative evaluation)

As with factor D1, factor D2 identified five variables, namely V141, V140, V142, V139 and V144. Considering the variables and the decision stages, the following descriptor can be ascribed to factor D2:

Descriptor: Factor D2

Factor D2 (and relevant statements) is predominantly in the pre- and post purchase evaluation stages of the decision-process and consists of the following aspect: reputability of Internet sellers.

Factor D3

Factor D3 encompasses the following four variables:

Statement	Dec. stage	V	Loading
Implications of providing my credit card details	P	V127	0.84
Providing my personal information to others	S&P	V126	0.80
The possible invasion of my privacy	S&P	V125	0.71
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.52

(Legend: S = Search; P = Purchase)

Considering the variables identified, it can be derived that **factor D3 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: concerns regarding security, privacy and delivery of purchased goods.**

Factor D4

Three variables were identified for factor D4, namely:

Statement	Dec. stage	V	Loading
Convenience of purchasing from home	PP&P	V145	0.85
Ease of purchasing via the Internet	PP&P	V146	0.75
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	0.55

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase)

The variables lean heavily on the convenience aspect of shopping via the Internet from home and also acknowledge the ease of shopping on the Net.

Descriptor: Factor D4

Considering the decision-stages and these two variables, **factor D4 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision process and consists of the following aspects: safety and convenience of purchasing from home.**

Table 7.26 shows the four factors discussed for Internet shoppers using the Internet for less than two years. Table 7.26 also indicates that the four identified factors explained 82.22% of the total variance for the 24 variables.

TABLE 7.26: FACTORS APPLICABLE TO INTERNET SHOPPERS USING THE NET FOR LESS THAN TWO YEARS

Descriptor	Percentage of variance	Cumulative percentage
Factor D1 is predominantly in the pre- and post-purchase evaluation stages of the decision-making process and consists of the following aspects: credibility of Internet sellers by considering their prices, guarantees and exchange policies offered	47.23%	47.23%
Factor D2 is predominantly in the pre- and post purchase evaluation stages of the decision-process and consists of the following aspect: reputability of Internet sellers	14.63%	61.86%
Factor D3 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: concerns regarding security, privacy and delivery of purchased goods	11.58%	73.44%
Factor D4 is predominantly in the pre-purchase evaluation and purchase stages of the decision process and consists of the following aspects: safety and convenience of purchasing from home	8.78%	82.22%

(BC5) A main finding from the factor analysis is that Internet shoppers who have been using the Internet for less than two years consider the following four factors when deciding to purchase via the Net: factor D1 is predominantly in the pre- and post-purchase evaluation stages of the decision-making process and consists of the following aspects: credibility of Internet sellers by considering their prices, guarantees and exchange policies offered; factor D2 is predominantly in the pre- and post purchase evaluation stages of the decision-process and consists of the following aspect: reputability of Internet sellers; factor D3 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: concerns regarding security, privacy and delivery of purchased goods; and factor D4 is predominantly in the pre-purchase evaluation and purchase stages of the decision process and consists of the following aspects: safety and convenience of purchasing from home.

(iv) Factor analysis results for Internet shoppers who have been using the Internet for two years to less than three years

TABLE 7.27: ROTATED FACTOR MATRIX FOR INTERNET SHOPPERS USING THE NET FOR TWO YEARS TO LESS THAN THREE YEARS

Statement	Dec. stage	V	Factor			
			E1	E2	E3	E4
The possible invasion of my privacy	S&P	V125	0.10	0.10	0.79	0.09
Providing my personal information to others	S&P	V126	0.11	0.06	0.70	0.19
Implications of providing my credit card details	P	V127	0.16	0.11	0.92	0.01
Credibility of the seller	PP	V128	0.33	0.31	0.44	0.06
Concerned that goods purchased via the Internet will not be received	P	V129	0.46	0.47	0.23	0.06
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.58	0.35	0.25	0.16
The price of products or services offered via the Internet	PP	V131	0.63	0.15	0.10	0.16
Brand name of products or services offered via the Internet	S&PP	V132	0.57	0.22	0.12	0.11
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.56	0.19	0.26	0.07
The availability of prices on Internet sites	PP	V134	0.27	0.69	0.01	0.21
Guarantees offered by Internet sellers	PP&PE	V135	0.18	0.89	0.23	0.11
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.28	0.79	0.18	0.13
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.60	0.38	0.32	0.20
Importance of "touching and feeling" products prior to purchase	PP	V138	0.41	0.07	0.13	-0.03
The range of products/services offered from individual sellers on the Internet	PP	V139	0.46	0.45	0.14	0.27
After sales service	PP&PE	V140	0.40	0.38	0.09	0.15
Personal/individual attention	PP&PE	V141	0.61	0.12	0.17	0.18
The time between purchasing and receiving goods	PP&PE	V142	0.50	0.42	0.11	0.28
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	0.31	0.25	0.12	0.64
Knowledge of the seller	S&PP	V144	0.40	0.27	0.21	0.37
Convenience of purchasing from home	PP&P	V145	0.04	0.12	0.17	0.90
Ease of purchasing via the Internet	PP&P	V146	0.16	0.12	0.10	0.81
Don't have a credit card	PP	V147	0.27	0.06	-0.01	0.05
How secure Internet payment methods are	P	V148	0.27	0.20	0.61	0.21
Eigenvalues			8.56	1.87	1.53	1.02
Percentage of variance			56.27%	12.22%	10.14%	6.42%
Cumulative percentage			56.27%	68.49%	78.63%	85.05%

n = 100 (Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

Table 7.27 portrays the rotated factor matrix for the 24 statements that Internet shoppers who have been using the Internet for two years to less than three years ($n = 100$) consider when purchasing via the Internet. Four factors are identified (labelled E1 to E4) for Internet shoppers who have been using the Net for two years to less than three years. Factor E1 comprises seven variables, E2 of three, E3 of four and E4 of three variables. The realised eigenvalues for each of the factors are 8.56, 1.87, 1.53 and 1.02 respectively. Cronbach's alpha computed for the instrument items of the factor analysis is 0.922, indicating internal consistency reliability.

The percentage of variance accounted for by the factors are 56.27% for E1, 12.22% for E2, 10.14% for E3 and 6.42% for E4. The four identified factors cumulatively account for 85.05% of the total variance. These four factors will be analysed and discussed in more detail below.

Factor identification

As mentioned, four factors were identified by Internet shoppers who had been using the Internet for two years to less than three years. Each factor will be analysed in the discussion below.

Factor E1

Factor E1 comprise seven variables, namely:

Statement	Dec. stage	V	Loading
The price of products or services offered via the Internet	PP	V131	0.63
Personal/individual attention	PP&PE	V141	0.61
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.60
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.58
Brand name of products or services offered via the Internet	S&PP	V132	0.57
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes	PP	V133	0.56
The time between purchasing and receiving goods	PP&PE	V142	0.50

(Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

Considering the variables that constitute factor E1, three possible underlying concepts can be identified. The first incorporates variables V131, V132 and V133, focusing on pre-purchase evaluation of brand names, prices of products and services and additional cost associated with purchasing via the Internet.

The second concept identified by factor E1 is the delivery of purchased items. This concept is derived by considering the chosen statements that highlight the possibility that goods may be damaged while shipped or delivered (V130) and the time between purchasing and receiving purchased goods (V142). The final variable associated with factor E1, personal/individual attention (V141), can most probably be associated with the first concept, whereby shoppers would consider the individual attention offered by Internet sellers.

Descriptor: Factor E1

Factor E1 (and relevant statements) is predominantly in the pre-purchase evaluation stage of the decision-process and consists of the following aspects: brands, prices, individual attention offered by Internet sellers and delivery of purchased goods and additional costs associated with Internet purchases.

Factor E2

Factor E2 contained three variables, namely:

Statement	Dec. stage	V	Loading
Guarantees offered by Internet sellers	PP&PE	V135	0.89
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.79
The availability of prices on Internet sites	PP	V134	0.69

(Legend: PP = Pre-purchase alternative evaluation; PE = Post-purchase alternative evaluation)

The central concept identified by the two variables (guarantees offered – V135 - and exchange or return policies – V136) as well as the third variable (V134 – availability of prices on Internet sites), is that Internet shoppers who have been using the Net for two years to less than three years evaluate Internet sellers on the guarantees and exchange policies offered together with their willingness to publish prices on their sites.

Descriptor: Factor E2

Considering the discussion regarding these three variables, it can be derived that **factor E2 (and relevant statements) is predominantly in the pre- and post purchase evaluation stages of the decision-making process and consists of the following aspects: Internet sellers' prices, guarantees and exchange policies.**

Factor E3

The following four variables constitute factor E3:

Statement	Dec. stage	V	Loading
Implications of providing my credit card details	P	V127	0.92
The possible invasion of my privacy	S&P	V125	0.79
Providing my personal information to others	S&P	V126	0.70
How secure Internet payment methods are	P	V148	0.61

(Legend: S = Search; P = Purchase)

The central theme from the first three variables (V127, V125 and V126) identifying factor E3, is the security and privacy aspect associated with Internet purchases. The final variable (how secure Internet payment methods are – V148) specifically highlights the security aspect associated with Internet payment methods.

Descriptor: Factor E3

Factor E3 (and relevant statements) is predominantly in the search and purchase evaluation stages of the decision-process and consists of the following aspects: security and privacy concerns.

Factor E4

The three variables constituting factor E4 are listed below:

Statement	Dec. stage	V	Loading
Convenience of purchasing from home	PP&P	V145	0.90
Ease of purchasing via the Internet	PP&P	V146	0.81
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	0.64

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase)

The three variables jointly focus on ease, safety and convenience of using the Internet from home. Factor E4 is as a convenient buying channel (from home) and an important aspect associated with the decision to purchase via the Net.

Descriptor: Factor E4

Factor E4 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision-process and consists of the following aspects: safety and convenience of purchasing from home.

Table 7.28 summarises the previously discussed factor identification process by providing the descriptor together with the percentage of variance explained by the factors identified for Internet users who have been using the Internet for two to three years.

TABLE 7.28: FACTORS APPLICABLE TO INTERNET SHOPPERS USING THE NET FOR TWO YEARS TO LESS THAN THREE YEARS

Descriptor	Percentage of variance	Cumulative percentage
Factor E1 is predominantly in the pre-purchase evaluation stage of the decision-process and consists of the following aspects: brands, prices, individual attention offered by Internet sellers and delivery of purchased goods and additional costs associated with Internet purchases	56.27%	56.27%
Factor E2 is predominantly in the pre- and post purchase evaluation stages of the decision-making process and consists of the following aspects: Internet sellers' prices, guarantees and exchange policies	12.22%	68.49%
Factor E3 is predominantly in the search and purchase evaluation stages of the decision-process and consists of the following aspects: security and privacy concerns	10.14%	78.63%
Factor E4 is predominantly in the pre-purchase evaluation and purchase stages of the decision-process and consists of the following aspects: safety and convenience of purchasing from home	6.42%	85.05%

As can be seen from Table 7.28, the four factors identified for Internet shoppers who have been using the Net for two years to less than three years explained 85.05% of the total variance of the 24 variables.

(BC6) A main finding from the factor analysis is that Internet shoppers who have been using the Internet for two to less than three years consider the following four factors when deciding to purchase via the Net: factor E1 is predominantly in the pre-purchase evaluation stage of the decision-process and consists of the following aspects: brands, prices, individual attention offered by Internet sellers and delivery of purchased goods and additional costs associated with Internet purchases; factor E2 is predominantly in the pre- and post purchase evaluation stages of the decision-making process and consists of the following aspects: Internet sellers' prices, guarantees and exchange policies; factor E3 is predominantly in the search and purchase evaluation stages of the decision-process and consists of the following aspect: security

and privacy concerns; and factor E4 is predominantly in the pre-purchase evaluation and purchase stages of the decision-process and consists of the following aspect: safety and convenience of purchasing from home.

(v) Factor analysis results for Internet shoppers who have been using the Internet for three to less than four years

Table 7.29 shows the rotated factor matrix applicable to Internet shoppers using the Net for three to less than four years.

Cronbach's alpha computed for the instrument items of the factor analysis is 0.895, indicating internal consistency reliability.

From Table 7.29 it emerges that four factors (shown as factors F1 to F4) have been identified by Internet shoppers who have been using the Internet for three to four years. Factor F 1 comprises six, F2 four, F3 two and F4 four variables respectively. The realised eigenvalues for each of the factors are 7.38, 2.06, 1.19 and 1.08 respectively.

The four identified factors cumulatively are responsible for 80.94% of the total variance, with factor F1 accounting for 51.92% of the variance, F2 a further 14.08%, F3 an additional 7.79% and F4 the remaining 7.15% of the variance.

TABLE 7.29: ROTATED FACTOR MATRIX FOR INTERNET SHOPPERS USING THE NET FOR THREE YEARS TO LESS THAN FOUR YEARS

Statement	Dec. stage	V	Factor			
			F1	F2	F3	F4
The possible invasion of my privacy	S&P	V125	0.31	0.66	-0.04	0.34
Providing my personal information to others	S&P	V126	0.25	0.78	-0.07	0.17
Implications of providing my credit card details	P	V127	0.10	0.79	0.01	0.15
Credibility of the seller	PP	V128	0.34	0.48	0.17	0.35
Concerned that goods purchased via the Internet will not be received	P	V129	0.25	0.16	-0.09	0.51
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.21	0.26	-0.00	0.80
The price of products or services offered via the Internet	PP	V131	0.21	0.15	0.46	0.36
Brand name of products or services offered via the Internet	S&PP	V132	0.27	0.12	0.36	0.51
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.13	0.22	0.36	0.56
The availability of prices on Internet sites	PP	V134	0.37	0.25	0.23	0.13
Guarantees offered by Internet sellers	PP&PE	V135	0.71	0.27	0.24	0.08
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.69	0.27	0.25	0.06
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.56	0.12	0.07	0.20
Importance of "touching and feeling" products prior to purchase	PP	V138	0.45	-0.12	-0.30	0.17
The range of products/services offered from individual sellers on the Internet	PP	V139	0.41	0.01	0.40	0.21
After sales service	PP&PE	V140	0.66	0.15	0.21	0.25
Personal/individual attention	PP&PE	V141	0.57	0.05	0.23	0.19
The time between purchasing and receiving goods	PP&PE	V142	0.54	0.11	0.23	0.21
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	0.22	0.06	0.25	0.21
Knowledge of the seller	S&PP	V144	0.43	0.29	0.01	0.27
Convenience of purchasing from home	PP&P	V145	0.12	-0.04	0.69	0.03
Ease of purchasing via the Internet	PP&P	V146	0.25	0.03	0.82	-0.02
Don't have a credit card	PP	V147	0.05	-0.30	-0.04	-0.03
How secure Internet payment methods are	P	V148	0.40	0.61	0.14	0.06
Eigenvalues			7.38	2.06	1.19	1.08
Percentage of variance			51.92%	14.08%	7.79%	7.15%
Cumulative percentage			51.92%	66.00%	73.79%	80.94%

n = 112 (Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

Factor identification

Factor F1

Factor F1 comprises six variables, namely:

Statement	Dec. stage	V	Loading
Guarantees offered by Internet sellers	PP&PE	V135	0.71
Exchange/returns policies offered by Internet sellers	PP&PE	V136	0.69
After sales service	PP&PE	V140	0.66
Personal/individual attention	PP&PE	V141	0.57
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.56
The time between purchasing and receiving goods	PP&PE	V142	0.54

(Legend: S = Search; PP = Pre-purchase alternative evaluation; PE = Post-purchase alternative evaluation)

From the variables comprising factor F1 it can be seen that service and after sales service and support offered by Internet sellers are central to identifying the factor. Four of the variables (V135, V136, V140 and V141) indicate after sales service offered by Internet sellers, by focusing on guarantees and exchange policies offered together with the explicit mentioning of after sales service (V140). Service is also highlighted by considering the personal/individual attention identified by V141.

Variable, V142, focuses on the time between purchasing and receiving goods. This variable could, arguably, be grouped with the preceding variables by considering that shoppers could view the delivery process (and the time associated with it) as part of the service offering offered by Internet sellers.

Descriptor: Factor F1

Considering the discussion, it can be derived that **factor F1 (and relevant statements) is predominantly in the pre- and post-purchase evaluation**

stages of the decision-process and consists of the following aspects: ability to find and evaluate information on after-sales support offered by Internet sellers.

Factor F2

The four variables that constitute factor F2 are:

Statement	Dec. stage	V	Loading
Implications of providing my credit card details	P	V127	0.79
Providing my personal information to others	S&P	V126	0.78
The possible invasion of my privacy	S&P	V125	0.66
How secure Internet payment methods are	P	V148	0.61

(Legend: S = Search; P = Purchase)

The central theme identified from the first three variables (V127, V125 and V126) comprising factor F2, is the security and privacy aspects associated with Internet purchases. The final variable (how secure Internet payment methods are – V148) specifically highlights the security aspect associated with Internet payment methods.

Descriptor: Factor F2

Factor F2 (and relevant statements) is predominantly in the search and purchase stages of the decision-process and consists of the following aspects: security and privacy concerns.

Factor F3

Only two variables were highlighted for factor F3, namely:

Statement	Dec. stage	V	Loading
Ease of purchasing via the Internet	PP&P	V146	0.82
Convenience of purchasing from home	PP&P	V145	0.69

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase)

Considering the two variables, it can be derived that **factor F3 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of purchasing from home.**

Factor F4

The final factor identified for Internet shoppers who have been using the Net for three years to less than four years, comprises four variables, namely:

Statement	Dec. stage	V	Loading
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.80
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.56
Concerned that goods purchased via the Internet will not be received	P	V129	0.51
Brand name of products or services offered via the Internet	S&PP	V132	0.51

(Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase)

Two of the variables listed for factor F4 focus on possible concerns regarding the delivery of products and services offered via the Internet (V130 and V129). Variable V133 also strongly emphasises the delivery process, by focusing on additional costs associated with Internet purchases (the cost elements listed – delivery/shipping costs, insurance costs and import taxes – can all be directly associated with the delivery process).

The final identified variable, V132, focuses on the brand name of products and services offered via the Internet. It does not seem as though this variable can be used to support the overriding concept identified by the other three variables when ascribing a descriptor to factor F4.

Descriptor: Factor F4

Factor F4 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision-process and consists of the following aspect: concerns regarding the actual delivery and delivery costs when purchasing known brands via the Internet.

It can be seen from Table 7.30 that the four factors identified for Internet shoppers who have been using the Internet for three years to less than four years accounted for 80.94% of the total variance of the 24 variables.

TABLE 7.30: FACTORS APPLICABLE TO INTERNET SHOPPERS USING THE NET FOR THREE YEARS TO LESS THAN FOUR YEARS

Descriptor	Percentage of variance	Cumulative percentage
Factor F1 is predominantly in the pre- and post-purchase evaluation stages of the decision-process and consists of the following aspects: ability to find and evaluate information on after-sales support offered by Internet sellers	51.92%	51.92%
Factor F2 is predominantly in the search and purchase stages of the decision-process and consists of the following aspects: security and privacy concerns	14.08%	66.00%
Factor F3 is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of purchasing from home	7.19%	73.79%
Factor F4 is predominantly in the pre-purchase evaluation and purchase stages of the decision-process and consists of the following aspect: concerns regarding the actual delivery and delivery costs when purchasing known brands via the Internet	7.15%	80.94%

(BC7) The main finding from the factor analysis is that Internet shoppers, who have been using the Internet for three years to less than four years, consider the following four factors when deciding whether or not to purchase Online: factor F1 is predominantly in the pre- and post-purchase evaluation stages of the decision-process and consists of the following aspects: ability to find and evaluate

information on after-sales support offered by Internet sellers; factor F2 is predominantly in the search and purchase stages of the decision-process and consists of the following aspects: security and privacy concerns; factor F3 is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of purchasing from home; and factor F4 is predominantly in the pre-purchase evaluation and purchase stages of the decision-process and consists of the following aspect: concerns regarding the actual delivery and delivery costs when purchasing known brands via the Internet.

(vi) Factor analysis results for Internet shoppers who have been using the Internet for four years and more

Table 7.31 shows the rotated factor matrix applicable to Internet shoppers using the Net for four years or more.

Cronbach's alpha computed for the instrument items of the factor analysis is 0.868, indicating a relatively high internal consistency reliability.

From Table 7.31 it can be seen that five factors (labelled G1 to G5) are identified, that Internet shoppers who have been using the Internet for four years or more, consider when deciding to purchase via the Internet. Factors G1 and G2 comprise four variables each, G3 two, G4 three and G5 two variables respectively. The realised eigenvalues for each of the factors are 5.65, 2.20, 1.38, 1.20 and 1.05 respectively.

TABLE 7.31: ROTATED FACTOR MATRIX FOR INTERNET SHOPPERS USING THE NET FOR FOUR YEARS OR MORE

Statement	Dec. stage	V	Factor				
			G1	G2	G3	G4	G5
The possible invasion of my privacy	S&P	V125	0.07	0.74	0.07	0.17	-0.02
Providing my personal information to others	S&P	V126	0.03	0.81	0.08	-0.00	-0.01
Implications of providing my credit card details	P	V127	0.09	0.76	0.12	-0.05	-0.25
Credibility of the seller	PP	V128	0.40	0.31	-0.00	0.23	0.06
Concerned that goods purchased via the Internet will not be received	P	V129	0.18	0.34	0.32	0.28	0.03
Goods may be damaged while shipped (in transit) or when delivered	P	V130	0.29	0.24	0.40	0.29	0.05
The price of products or services offered via the Internet	PP	V131	0.05	0.03	0.12	0.78	-0.00
Brand name of products or services offered via the Internet	S&PP	V132	0.13	0.00	0.15	0.58	0.14
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.16	0.13	0.17	0.56	0.09
The availability of prices on Internet sites	PP	V134	0.63	0.01	-0.19	0.42	0.17
Guarantees offered by Internet sellers	PP&PE	V135	0.82	0.20	0.12	0.18	0.12
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.75	0.10	0.27	0.08	0.08
Ability to understand how to use the Internet/purchase via the Internet	S	V137	0.28	0.25	0.25	0.38	-0.01
Importance of "touching and feeling" products prior to purchase	PP	V138	0.01	0.18	0.48	0.20	-0.17
The range of products/services offered from individual sellers on the Internet	PP	V139	0.30	-0.10	0.37	0.29	0.07
After sales service	PP&PE	V140	0.51	0.15	0.52	-0.09	0.08
Personal/individual attention	PP&PE	V141	0.11	0.13	0.70	0.08	0.11
The time between purchasing and receiving goods	PP&PE	V142	0.28	-0.00	0.29	0.24	0.27
Safety of purchasing from home (i.e. don't have to visit shopping malls and possibly be a victim of crime)	PP&P	V143	-0.04	0.11	0.37	0.10	0.49
Knowledge of the seller	S&PP	V144	0.30	0.06	0.47	0.07	0.27
Convenience of purchasing from home	PP&P	V145	0.14	-0.03	0.06	0.07	0.87
Ease of purchasing via the Internet	PP&P	V146	0.17	-0.02	0.03	0.08	0.83
Don't have a credit card	PP	V147	-0.03	0.08	0.34	0.12	0.09
How secure Internet payment methods are	P	V148	0.15	0.60	0.18	0.05	0.08
Eigenvalues			5.65	2.20	1.38	1.20	1.05
Percentage of variance			41.87%	16.50%	10.62%	9.04%	8.13%
Cumulative percentage			41.87%	58.37%	68.99%	78.03%	86.16%

n = 258 (Legend: S = Search; PP = Pre-purchase alternative evaluation; P = Purchase; and PE = Post-purchase alternative evaluation)

The percentage of variance explained by the factors are as follows: 41.87% for G1, 16.50% for G2, 10.62% for G3, 9.04% for G4 and 8.13% for G5. The five factors cumulatively explain 86.16% of the total variance.

Factor identification

The five factors identified for Internet shoppers who have been using the Internet for four years or more will be discussed below.

Factor G1

Factor G1 comprises the following four variables:

Statement	Dec. stage	V	Loading
Guarantees offered by Internet sellers	PP&PE	V135	0.82
Exchange/return policies offered by Internet sellers	PP&PE	V136	0.75
The availability of prices on Internet sites	PP	V134	0.63
After sales service	PP&PE	V140	0.51

(Legend: PP = Pre-purchase alternative evaluation; PE = Post-purchase alternative evaluation)

Three variables (V135, V136 and V140) focus on after sales service aspects that Internet users who have been using the Internet for four years and more consider to be important when deciding to purchase Online. The fourth variable (V134) focuses on the availability of pricing information on sellers' Websites.

Descriptor: Factor G1

Considering the discussion together with the decision-making stages, it can be derived that **factor G1 (and relevant statements) is predominantly in the pre- and post-purchase evaluation stages of the decision-making process and consists of the following aspects: prices and after-sales service offered by Internet sellers.**

Factor G2

Four variables are distinguished for factor G2, namely:

Statement	Dec. stage	V	Loading
Providing my personal information to others	S&P	V126	0.81
Implications of providing my credit card details	P	V127	0.76
The possible invasion of my privacy	S&P	V125	0.74
How secure Internet payment methods are	P	V148	0.60

(Legend: S = Search; P = Purchase)

The central theme from the first three variables (V125, V126 and V127) identifying factor G2, is the security and privacy aspect associated with Internet purchases. The final variable (how secure Internet payment methods are – V148) specifically highlights the security aspect associated with Internet payment methods.

Descriptor: Factor G2

Considering the four variables, it can be concluded that **factor G2 (and relevant statements) is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: security and privacy concerns.**

Factor G3

Only two variables are identified for factor G3, namely:

Statement	Dec. stage	V	Loading
Personal/individual attention	PP&PE	V141	0.70
After sales service	PP&PE	V140	0.52

(Legend: PP = Pre-purchase alternative evaluation; PE = Post-purchase alternative evaluation)

The variables identified for factor G3 focus on service aspects. V141 highlights the need for individual attention, while V140 specifically consider after sales service.

Due to the higher loading for V141, it was decided to focus on V141 when ascribing a descriptor to factor G3. Since V141 does not specifically mention service, while V140 does, it can be concluded that **factor G3 (and relevant**

statements) is predominantly in the pre- and post-purchase evaluation stages of the decision-process and consists of the following aspect: personal attention offered by Internet sellers.

Factor G4

The three variables that constitute factor G4 are:

Statement	Dec. stage	V	Loading
The price of products or services offered via the Internet	PP	V131	0.78
Brand name of products or services offered via the Internet	S&PP	V132	0.58
Additional cost associated with purchasing via the Internet (e.g.) delivery/shipping costs; insurance costs, import taxes, etc	PP	V133	0.56

(Legend: S = Search; PP = Pre-purchase alternative evaluation)

Two variables (V131 and V133) identified for factor G4 highlight costs of purchases. The first variable, V131, focuses on the price of the actual product, while V133 considers the augmented cost to purchase a product via the Net (e.g. delivery costs, etc).

Descriptor: Factor G4

Factor G4 (and relevant statements) is predominantly in the pre-purchase evaluation stage of the decision-making process and consists of the following aspects: brands, prices and total cost associated with purchasing from Internet sellers.

Factor G5

Two variables were identified for factor G5, namely:

Statement	Dec. stage	V	Loading
Convenience of purchasing from home	PP&P	V145	0.87
Ease of purchasing via the Internet	PP&P	V146	0.83

(Legend: PP = Pre-purchase alternative evaluation; P = Purchase)

The two identified variables place emphasis on the convenience aspect of shopping via the Internet from home and also acknowledge the ease of shopping on the Net. Considering the two variables, it can be seen that **factor G5 (and relevant statements) is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of shopping from home.**

In Table 7.32 it can be seen that the five factors discussed, identified for Internet shoppers who have been using the Net for four years or more, explained 86.165% of the total variance for the 24 variables.

TABLE 7.32: FACTORS APPLICABLE TO INTERNET SHOPPERS USING THE NET FOR FOUR YEARS OR MORE

Descriptor	Percentage of variance	Cumulative percentage
Factor G1 is predominantly in the pre- and post-purchase evaluation stages of the decision-making process and consists of the following aspects: prices and after-sales service offered by Internet sellers	41.87%	41.87%
Factor G2 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: security and privacy concerns	16.50%	58.37%
Factor G3 is predominantly in the pre- and post-purchase evaluation stages of the decision-process and consists of the following aspect: personal attention offered by Internet sellers	10.62%	68.99%
Factor G4 is predominantly in the pre-purchase evaluation stage of the decision-making process and consists of the following aspects: brands, prices and total cost associated with purchasing from Internet sellers	9.04%	78.03%
Factor G5 is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of shopping from home	8.13%	86.16%

(BC8) A main finding from the factor analysis is that Internet shoppers who have been using the Internet for four years or more consider five factors when deciding to purchase via the Net, namely: factor G1 is predominantly in the pre- and post-purchase evaluation stages of the decision-making process and consists of the following aspects:

prices and after-sales service offered by Internet sellers; factor G2 is predominantly in the search and purchase stages of the decision-making process and consists of the following aspects: security and privacy concerns; factor G3 is predominantly in the pre- and post-purchase evaluation stages of the decision-process and consists of the following aspect: personal attention offered by Internet sellers; factor G4 is predominantly in the pre-purchase evaluation stage of the decision-making process and consists of the following aspects: brands, prices and total cost associated with purchasing from Internet sellers; and factor G5 is predominantly in the pre-purchase evaluation and purchase stages of the decision-making process and consists of the following aspects: ease and convenience of shopping from home.

The findings from the factor analyses, applicable to Internet shoppers across different periods of Internet access, need to be compared to determine if there is a difference, regarding factors considered prior to Online shopping, between the different groups of Internet shoppers. This will be done by considering the different decision-making stages ascribed to each identified factor.

Period of Internet usage	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
• Less than 2 years (main finding BC5)	PP&PE (D1)	PP&PE (D2)	S&P (D3)	PP&P (D4)	N/A
• 2 years to less than 3 years (main finding BC6)	PP (E1)	PP&PE (E2)	S&P (E3)	PP&P (E4)	N/A
• 3 years to less than 4 years (main finding BC7)	PP&PE (F1)	S&P (F2)	PP&P (F3)	PP&P (F4)	N/A
• 4 years or more (main finding BC8)	PP&PE (G1)	S&P (G2)	PP&PE (G3)	PP (G4)	PP&P (G5)

From the comparison, it can be seen that there are noticeable differences between Internet shoppers (across different time periods) when considering the predominant stages of the decision-making process associated with each identified factor.

The following main finding can be derived from considering the comparison provided together with the factor analyses conducted for Internet shoppers by reflecting on the period of Internet usage:

(BC9) There is a difference between the factors considered by Internet shoppers prior to purchasing via the Internet when the period of Internet usage is considered and the associated stages of the decision-making process.

(b) Questions 15 and 19

Q15: From which of the following product and service categories will you seriously consider purchasing via the Internet in the future? [38 categories were listed]

Q19: From which of the following product and services categories have you purchased before and do you seriously consider purchasing via the Internet in the future? [38 categories were listed]

Question 15 was directed at respondents who had not purchased via the Net before, but indicated that they would either consider purchasing Online in the future, or would consider purchasing via the Net if more South African businesses offered products or services on the Internet. These respondents had to indicate from which product and service categories they would consider purchasing via the Internet in the future.

Question 19 was directed at those respondents who had purchased Online before. These respondents had to indicate from which product or service categories they had previously purchased.