

Chapter 4 - Contents @ Web Site

In this chapter, the importance given to specific information that could possibly be made available on the web page is analyzed. There were basically 12 major items that respondents were required to rate according to the importance of that particular information. Each item may have different number of variables. An option was also given to respondents to express one additional item that they find important and has been left out. The analysis shall also be done after combining the variables of each item. Table 4.1 lists each item and its variables.

Item (no. of variables)	Variables
Information about Merchant (11)	Registered Country, Company Name, Brand Name, Vision & Mission, Financial Result, Shareholders, Subsidiaries, International Ventures, Number of Employees, Reference, Product List.
Contact Details (5)	E-mail, Physical address, Telephone, Fax, Web page Forms
Product Information (5)	Description of Requested Product, Description of Substitute Product, Description of Compliment Product, Description of Component Product, Availability.
Information Currency (3)	Last modified, Validity, Update rate
Privacy (3)	Who gets access, Pass to third party, Send updates
Delivery Options (7)	Geographical Restriction, Delivery Cost, Delivery period, Delay in delivery, Shipping firm, Notification upon shipping execution, Back-order details
Support Information (4)	Contact details, Support charges, Validity, Response time
Warranty Details (4)	Refund Policy, Return Procedure, Cost of Returning, Response time
Cancellation of an Order (4)	Cost, Refund period, Eligible period, Cancellation procedure
Security (3)	Name, Effectiveness, Approval
Reliability (4)	Registration Number, Auditors Report, Reference, Approval
Others (3)	Applicable Law, Search Capabilities, Online Forms

Table 4.1: List of Items and Variables

Besides that the correlation that may exist between each item shall also be analyzed. Finally the reliability of the scale used to measure the importance of each variable and each item shall be discussed.

4.1 Descriptive Analysis

In this section, the outcome of the survey shall be discussed based on each variable and each item. The 12 items that were contained in the questionnaire and the importance grade given to it are described below. For each variable, the mode and the percentile ranking of '4' is included as well.

4.1.1 Information About Merchant.

	Mode	Percentile Ranking 4
Country where the company is situated	5	0.46
Legal Company Name	5	0.27
Legal Brand Name	5	0.30
Vision and Mission of the company	2	0.82
Audited Financial Results Summary	3	0.71
Details of Corporate Shareholders	2	0.82
Details of the company's subsidiaries (if any)	2	0.83
Details of the company's international ventures (if any)	3	0.75
Number of employees	1	0.91
Business Reference (customers or traders)	3	0.55
A list of all available products sorted in a certain order.	4	0.24

Table 4.2: Ranking - Information About Merchant

As anyone might guess, importance is given to the country where the company is situated, and the legal company and brand names. Information like shareholders and subsidiaries are found to be not that important. This basically means that consumers are not very interested about the size or financial capabilities of the company.

4.1.2 Contact Details

	Mode	Percentile Ranking 4
E-Mail address	5	0.13
Registered Physical Address	5	0.18
Telephone Number	5	0.12
Fax Number	5	0.19
Web Page forms	5	0.24

Table 4.3: Ranking - Contact Details

The result of the research shows that consumers require all kinds of communication methods. Consumers basically want to be able to contact web site firms whenever and however they want to. This is very much in line with a survey conducted by Ernest and Young, where 'being unable to communicate' was selected as the 3rd main reason or barrier of online trading.

4.1.3 Product Description

	Mode	Percentile Ranking 4
Description of Requested Products.	5	0.12
Description of Substitute Products.	4	0.43
Description of Compliment Products.	3	0.50
Description of Components of the product.	3	0.43
Availability of the Product.	5	0.23

Table 4.4: Ranking - Product Description

Product Description is a very important aspect of web page. Failing to provide product information in detail might cause consumers to just move away from making purchases. This is the 4th min barrier to online trade (according to the Ernest and Young survey).

The survey also shows that consumers are very sure of what they want and thus are not very interested in getting details related to compliment or substitute products.

4.1.4 Information Currency

	Mode	Percentile Ranking 4
Last Update	5	0.25
The validity of the information	5	0.18
Details of update rate of the web page	3	0.56

Table 4.5: Ranking - Information Currency

The details of when the site was last updated and the validity of the information published on the web page seem to be very important. Infected, there are many sites in the Internet which are ages old. Invalidity of information provided on the web page may cause consumers to lose confidence of online business. In a study by Interface Media and Research International, the availability of un-updated information has been identified as to cause the most frustration among those who have made purchases over the Internet.

4.1.5 Privacy

	Mode	Percentile Ranking 4
Who gets access to consumer information	5	0.43
Permission to pass details to third party	5	0.26
Permission to send updates to consumers	5	0.46

Table 4.6: Ranking - Privacy

The respondents have marked anything that has got to do with private information about consumers very important. Merchants should clearly mention who shall actually get access to the personal details of consumers. If the merchant wishes to send consumer details to a third party, permission from the consumer must be obtained first. A very intensive privacy study was conducted by Harris-Westin in US (1998). Even though the results revealed that only a small percentage have reported as victims of privacy invasion, close to 90% of Internet users expressed that they are very concerned with privacy issues. Some of the major privacy issues as reported in the study were tracking of which web sites a person is browsing, personal record put for public display in the Internet and sending updates to consumers without their concern. In another study by US-based Electronic Privacy Information Center (EPIC), it was identified that most web sites failed to publish their privacy policy.

4.1.6 Delivery Options

	Mode	Percentile Ranking 4
Details of geographical restrictions.	5	0.18
Details of delivery cost.	5	0.12
Estimated number of days before delivery.	5	0.18
Action is there were a delay in delivery.	5	0.17
Details of the shipping firm	4	0.43
Notification about shipment execution	4	0.40
Details of back-order at the merchant's place	4	0.62

Table 4.7: Ranking - Delivery Options

Upon selecting a product and making payment for it, how long will merchants take to deliver the product and at what cost. These are some of the issues of delivery that consumers have selected as important. How the product will be delivered does not seem to be a big issue. The kind of actions that consumers can take if there were a delay in delivery has been identified as an important detail as well.

4.1.7 Support Information

	Mode	Percentile Ranking 4
Contact details for help/support.	5	0.17
Support charges.	5	0.23
Validity of the support / Support period	5	0.21
Response time	5	0.29

Table 4.8: Ranking - Support Information

Based on the percentile ranking result, almost 80% of the respondents have identified all the four items as important. The need for support or help is very important particularly is the product is computer related or of high technology. As computer related products has been ranked as the most frequently purchased product over the Internet (published in a study conducted by AmericanGreetings.com), most purchasers find support as an important item.

4.1.8 Warranty Details

	Mode	Percentile Ranking 4
Details of refund policy.	5	0.17
Details of return procedure	5	0.16
Cost of returning the product.	5	0.18
Response Time.	5	0.25

Table 4.9: Ranking - Warranty Details

Consumers have identified warranty details as very important. Not being able to 'touch and feel' the product before purchasing has been identified as the second most important barrier for Internet purchasing in Ernest and Young's Consumer survey. One way to compensate what consumers are loosing here is by providing adequate warranty and the ability return the product if it does not match consumers' requirements. There is a cost involved and the party to take up the cost should be addressed in the web page.

4.1.9 Cancellation of Order

	Mode	Percentile Ranking 4
Cost of Cancellation	5	0.22
Refund response time	5	0.22
Cancellation period	5	0.20
Procedure for canceling the order	5	0.33

Table 4.10: Ranking - Cancellation of Order

Consumers to compensate for the lacking of being able to see the product before buying shall use this together with the warranty details. Thus the information on cost of cancellation and other procedure for cancellation should be clearly mentioned on the web pages.

4.1.10 Security

	Mode	Percentile Ranking 4
Name of the security protocol.	5	0.38
Effectiveness of the security.	5	0.33
Approval of the security.	5	0.32

Table 4.11: Ranking - Security

Security is a very important aspect of e-commerce. Consumers have identified that all three details about security are important in enabling them to identify the effectiveness of the security system being deployed by that web page. The issue of security has been acclaimed as the most important issue of online business. There is no doubt about that, but when it comes to consumers, security is the back end. Details about the security

such as effectiveness and approval of the security should be published in the front end (i.e. the web pages).

4.1.11 Reliability

	Mode	Percentile Ranking 4
Company Registered Number.	5	0.24
Auditors Report.	2	0.87
References.	3	0.56
Rating or Approval.	5	0.32

Table 4.12: Ranking - Reliability

This is how consumers may identify or accept the reliability of the web page they are referring to. Two ways have been selected as the preferred way of identifying the reliability of a web page. The company registration number and some kind of rating or approval for the web page are the two methods. Reference to consumers who have already purchased was not marked important, in contrast to the finding of the Ernest and Young survey, where consumers mentioned that they may decide to buy online if they were allowed to talk with someone who has already purchased from them.

4.1.12 Others

	Mode	Percentile Ranking 4
Applicable Law.	5	0.40
Search Capabilities.	4	0.30
Standard On-Line forms.	4	0.34

Table 4.13: Ranking - Others

Among the other details, the law that is applicable, if there were a dispute between merchant and consumer, has been identified and very important. This is crucial, as

Internet business is going to open up the business to the whole world, and what is right in on country may not be right in another. Publishing this information on the web page would enable consumers to know which country's law is being followed by any firm. Search capabilities are required if the merchant's web page has too many products for sale. The search engine would help consumers identify their product much easier.

4.1.13 Overall Summary

Table 4.14 gives a overall summary of the 12 items as rated by the respondents. Based on the results, contact details seems to given highest rank of importance as compared to the others. This is followed by warranty details, support information, cancellation of an order, security, applicable law, privacy, delivery options and the others.

	Mode	Percentile Ranking 4	Ranking
Information about Merchant	3.0	0.89	14
Contact Details	5.0	0.22	1
Product Information	4.5	0.48	9
Information Currency	4.0	0.42	12
Privacy	5.0	0.47	7
Delivery Options	4.5	0.38	8
Support Information	5.0	0.28	3
Warranty Details	5.0	0.24	2
Cancellation of an Order	5.0	0.29	4
Security	5.0	0.39	5
Reliability	3.5	0.63	13
Applicable Law	5.0	0.40	6
Search Capabilities	4.0	0.30	10
Standard On-line form	4.0	0.34	11

Table 4.14: Ranking - For the Combined Item

Information about the merchant is in the last position. This does not mean that information about merchant is not important. As it is mentioned in the table, the mode for this category is 3 which refers to 'necessary'.

4.2 Correlation Between Items

The relationship between variables here is based upon the Kendall Tau correlation coefficients. Besides providing the correlation between variables, the Kendall Tau also represents a probability, that is, it is the difference between the probability that in the observed data the two variables are in the same order versus the probability that the two variables are in different orders.

From Table 4.16, all the eleven items are found to be heavily correlated among one another. The highest correlation is between warranty details and cancellation procedure.

Information about merchant has the least degree of correlation as compared to others. None of the variables correlate with Information about merchant with a coefficient more than 0.4. Delivery Options, Contact Details, Support Information, Warranty Details and Cancellation Procedure are the 5 variables that are highly correlated among themselves. There also appears to be a significant correlation between reliability and security. Other major correlation is described in table 4.15.

4.3 Factor Reduction

The main goal for conducting the factor analysis is to explain the observed correlation using as few factors as possible. The factors should be interpretable and meaningful. The independent variables for the analysis are PRODINFO (Product Information), MERINFO (Merchant Information), CONTACT (Contact Details), CANCEL (Cancellation Procedure), DELEOPTIO (Delivery Option), INFOCURRE (Information Currency), PRIVACY (Privacy Details), RELIABIL (Reliability), SECURITY (Security Details), SUPPINFO (Support Information), and WARRDET (Warranty Details). The dependent variable is willingness to do on-line business.

Variable	Highly correlates with (coefficient > 0.4)
Information about Merchant	-
Contact Details	Cancellation Procedure, Delivery Option, Support Information and Warranty Details
Product Information	Warranty Details
Information Currency	Support Information
Privacy	Delivery Option, Support Information
Delivery Options	Cancellation Procedure, Contact details, Privacy, Support Information, Warranty Details
Support Information	Cancellation Procedure, Contact details, Privacy, Warranty Details, Delivery Option, Information Currency
Warranty Details	Cancellation Procedure, Contact details, Delivery Option, Product Information, Support Information
Cancellation of an Order	Contact details, Delivery Option, Support Information, Warranty Details
Security	Reliability
Reliability	Security

Table 4.15: Major Correlation Components

From the Correlation Matrix (Table 4.16), most of the coefficients are greater than 0.3 in absolute value. All variables are heavily correlated with at least one other variable. The large correlation among variables indicates that it is possible to extract certain factors from these variables.

Further to that, Bartlett's test of sphericity can be used to test the hypothesis that the correlation matrix is an identity matrix. If the hypothesis cannot be rejected, the usage of the factor model should be reconsidered.

	Cancell	Contact	Deloptio	Infocurr	Merinfo	Privacy	Prodinfo	Reliabil	Security	Suppinf	Warrdet
Cancell	1.000	.422	.427	.386	.114	.355	.365	.330	.365	.510	.607
Contact	.422	1.000	.404	.358	.252	.261	.307	.295	.241	.480	.469
Deloptio	.427	.404	1.000	.312	.126	.435	.393	.346	.242	.505	.472
Infocurr	.386	.358	.312	1.000	.247	.252	.282	.374	.304	.447	.336
Merinfo	.114	.252	.126	.247	1.000	.164	.233	.345	.314	.234	.189
Privacy	.355	.261	.435	.252	.164	1.000	.283	.368	.349	.416	.292
Prodinfo	.365	.307	.393	.282	.233	.283	1.000	.381	.336	.392	.423
Reliabil	.330	.295	.346	.374	.345	.368	.381	1.000	.536	.355	.349
Security	.365	.241	.242	.304	.314	.349	.336	.536	1.000	.346	.394
Suppinf	.510	.480	.505	.447	.234	.416	.392	.355	.346	1.000	.593
Warrdet	.607	.469	.472	.336	.189	.292	.423	.349	.394	.593	1.000

Table 4.16: Correlation Among Items

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.911

Bartlett's Test of Sphericity = 725.8, df = 55, Significance = 0.000

Exhibit 4.1: Bartlet's Test of Sphericity

The value of the test statistics is large and the associated significance level is small. Thus the hypothesis that the correlation matrix is an identity can be rejected and the factor analysis could be performed.

The principal component analysis method shall be used to extract the factors. The number of factors to be extracted based upon eigenvalue or the total variance explained by each factor is not always a good method (Tucker et al., 1969). The number of factors to be extracted shall be based on the scree plot (Cattell, 1966). The number of factors shall depend on the starting point of the scree. From the scree plot, it appears that a two-factor model should be sufficient.

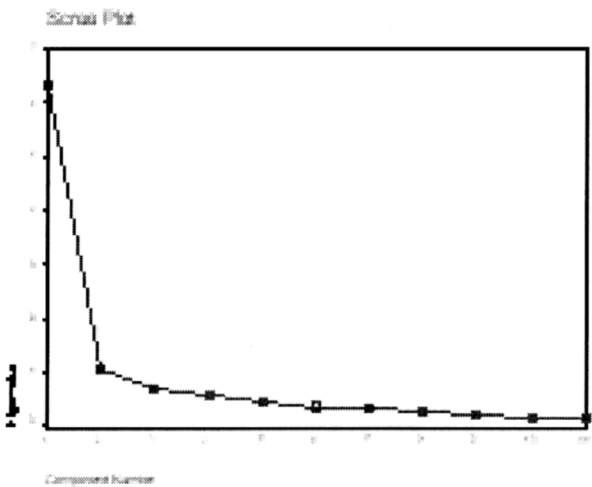


Exhibit 4.2: Scree Plot

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumm (%)	Total	% of Variance	Cumm (%)
1	6.327	57.519	57.519	6.327	57.519	57.519
2	1.127	10.245	67.764	1.127	10.245	67.764
3	0.740	6.731	74.495			
4	0.579	5.262	79.758			
5	0.499	4.538	84.295			
6	0.397	3.612	87.907			
7	0.361	3.281	91.188			
8	0.322	2.925	94.114			
9	0.263	2.392	96.505			
10	0.208	1.894	98.399			
11	0.176	1.601	100.000			

Table 4.17: Communality of Variables

Factor 1 has a variance of 6.327, which is 57.5% of the total variance of 11. Factor 2 contributes 10.2% of the total variance. These two factors cumulatively represent 67.8% of the variance explained.

The correlation between each factor and the original variables are shown in the table 4.18.

Factor 1 accounts reasonably high for almost all the variables. In some cases, Factor 1 and Factor 2 are about equally high. In order to eliminate this effect, the factors were rotated using the varimax method. There is quite some difference in the total variance explained by each factor. Table 4.19 gives a comparison of the difference between the variance explained before and after rotation.

	Factor		% of Variance Explained	
	F ₁	F ₂	F ₁ (%)	F ₂ (%)
CONTACT	0.791	-0.315	62.6	9.9
CANCEL	0.790	-0.291	62.4	8.5
DELOPTIO	0.813	-0.267	66.1	7.1
INFOCURR	0.740	-0.08.43	54.8	0.7
MERINFO	0.607	0.560	36.8	31.4
PRIVACY	0.653	0.00	42.6	0.0
PRODINFO	0.811	0.0314	65.8	0.1
RELIABIL	0.676	0.511	45.7	26.1
SECURITY	0.702	0.481	49.3	23.1
SUPPINFO	0.852	-0.186	72.6	3.5
WARRDET	0.860	-0.153	74.0	2.3

Table 4.18: Component Matrix

Factor	% of Variance	
	Before Rotation	After Rotation
Factor F ₁	57.5	42.9
Factor F ₂	67.8	67.8

Table 4.19: Comparison of Variance Explained by Each Factor

The component matrix after rotation is shown in Table 4.20.

Factor 1 accounts for a reasonably high percentage of Contact Details, Cancellation Procedures, Delivery Options, Information Currency, Privacy, Product Information, Support Information and Warranty Details. Factor 2 accounts for variables like Merchant Information, Reliability and Security.

From these data Factor one could be categorized as 'consumer awareness and rights'. Consumers basically want to be sure that they get what they really want and if they do not, then they should be able to return it and get refund. Consumers also want support and help to fully utilize what they buy.

	Factor		% of Variance Explained	
	F ₁	F ₂	F ₁ (%)	F ₂ (%)
CONTACT	0.832	0.177	69.2	3.1
CANCEL	0.819	0.197	67.1	3.9
DELOPTIO	0.824	0.229	67.9	5.2
INFOCURR	0.663	0.341	44.0	11.6
MERINFO	0.194	0.803	3.8	64.5
PRIVACY	0.544	0.362	29.6	13.1
PRODINFO	0.657	0.476	43.2	22.7
RELIABIL	0.278	0.800	7.7	64.0
SECURITY	0.317	0.790	10.0	62.4
SUPPINFO	0.812	0.318	65.9	10.1
WARDET	0.800	0.351	64.0	12.3

Table 4.20: Component Matrix (after rotation)

The second factor could be categorised as 'trust on web page'. Consumers are concerned about the reliability and security of the firm as well as the Internet as the medium of transaction.

Thus, F₁ = 'consumer awareness and rights' and F₂ = 'trust on web page'

Based on the component matrix, the relationship between the original variables and the extracted factors could be written as in Exhibit 4.3.

Since one of the goals of factor analysis is to reduce the large number of variables to a smaller number of factors, it is often desirable to estimate factor scores for each case. The factor scores can be used in subsequent analyses to represent the values of the factors. Plots of factor scores are useful for detecting unusual observations. Table 4.21 contains the factor scores for each factor. This is followed by the covariance matrix for the estimated regression factor scores in Table 4.22.

<i>Contact Details</i>	$= 0.832F_1 + 0.177F_2$
<i>Cancellation Procedure</i>	$= 0.819F_1 + 0.197F_2$
<i>Delivery Option</i>	$= 0.824F_1 + 0.229F_2$
<i>Information Currency</i>	$= 0.663F_1 + 0.341F_2$
<i>Merchant Information</i>	$= 0.194F_1 + 0.803F_2$
<i>Privacy</i>	$= 0.544F_1 + 0.362F_2$
<i>Product Information</i>	$= 0.657F_1 + 0.476F_2$
<i>Reliability</i>	$= 0.278F_1 + 0.8F_2$
<i>Security</i>	$= 0.317F_1 + 0.790F_2$
<i>Support Information</i>	$= 0.812F_1 + 0.318F_2$
<i>Warranty Details</i>	$= 0.8F_1 + 0.351F_2$
where, F_1 = 'consumer awareness and rights' and F_2 = 'trust on web page'	

Exhibit 4.3: Relationship - Original Variables and Extracted Factors

	Factor	
	F ₁	F ₂
CONTACT	0.259	-0.163
CANCEL	0.247	-0.146
DELOPTIO	0.238	-0.126
INFOCURR	0.139	0.003
MERINFO	-0.196	0.467
PRIVACY	0.086	0.057
PRODINFO	0.091	0.094
RELIABIL	-0.163	0.437
SECURITY	-0.145	0.417
SUPPINFO	0.204	-0.063
WARRDET	0.188	-0.037

Table 4.21: Component Score Coefficient Matrix

	Factor F ₁	Factor F ₂
Factor F ₁	1.00	0.00
Factor F ₂	0.00	1.00

Table 4.22: Covariance Matrix For Estimated Regression Factor Scores

4.4 Reliability Analysis

Measuring the importance of selected criterion based on the importance given to it would rise the issue of how reliable is the scale being used. The questionnaire covers certain aspect of various categories of web page contents, but would it provide similar relationships if the questions were changed. A good scale is the one that yields stable results.

Before analysing the reliability of the scale, it is worth defining the main goal of the scale. The goal of the scale is to assess consumers' perception on the importance of various contents of web pages.

In the first stage, the reliability of the scale to measure all the items shall be assessed. The group shall contain details of privacy, product information, reliability, security, support information, warranty details, information currency, merchant information, delivery options, contact details, and cancellation procedure. In the second stage, the reliability of the scale to measure each of the eleven groups (the others item shall not be analyzed) by itself shall be assessed.

4.4.1 Reliability Analysis - The Combined Group

From Table 4.17, the average score on an item is 3.9 with a range of 1.24. Similarly, the average for item variance is 0.79 with a minimum of 0.44 and a maximum of 1.21. The correlation between items range from 0.20 to 0.81. The ratio between the largest and the smallest correlation is 3.98 (0.8067/0.2028). The average correlation is 0.558. The reliability coefficient that shall be used for this analysis is the Cronbach's Alpha. Alpha is based on the internal consistency of a test. That is it is based on the average covariance among items on a scale. The Cronbach's alpha can be interpreted as the

squared correlation between the score a person obtains on a particular scale (the observed score) and the score he would have obtained if questioned on all of the possible items in the universe (the true score).

Item Means	Mean	Minimum	Maximum	Range	Max/Min	Variance
	3.8999	3.0886	4.3278	1.2392	1.4012	0.1217
Item Variances	Mean	Minimum	Maximum	Range	Max/Min	Variance
	0.7899	0.4431	1.2124	0.7693	2.7360	0.0455
Inter-item Correlation	Mean	Minimum	Maximum	Range	Max/Min	Variance
	0.5577	0.2028	0.8067	0.6039	3.9786	0.0217

Table 4.23: Summary Statistics For Items

The Cronbach's alpha for consumers' perception of the importance on certain contents of web page is 0.9319. This value is large and thus the scale could be concluded as a reliable one. The standardized item alpha for the test is 0.9328. The ignorable difference between the two alpha coefficients indicate that the items on the scale have fairly comparable variance.

Further to this analysis, there is a possibility that either one of the items affect the reliability of the scale. This means, removing one item may improve or reduce the reliability of the scale. For this analysis, the 'alpha if item deleted' shall be calculated and analyzed. Table 4.18 contains the total correlation, squared multiple correlation and the 'alpha if item deleted' for each item in the group.

From the table item 'MERINFO' (or merchant information) causes the alpha to increase from 0.9319 to 0.9365. This is due to the low correlation between 'MERINFO' and the rest of the 10 variables. Only about 32% of the observed variability in the responses to this item can be explained by the other items.

Scale	Total Correlation	Squared Multiple Correlation	Alpha if item deleted
PRIVACY	0.6108	0.4666	0.9308
PRODINFO	0.7490	0.5941	0.9246
RELIABIL	0.7129	0.6146	0.9257
SECURITY	0.6639	0.6063	0.9295
SUPPINFO	0.8355	0.7641	0.9202
WARRDET	0.8331	0.7835	0.9202
INFOCURR	0.7394	0.6033	0.9246
MERINFO	0.4081	0.3155	0.9365
DELOPTIO	0.7933	0.7388	0.9230
CONTACT	0.7764	0.6545	0.9233
CANCEL	0.8076	0.7287	0.9213

Table 4.24: Item-Total Summary Statistics

As mentioned earlier, the second stage of analysis is to assess the reliability of each item by itself.

4.4.2 Reliability Analysis - Information About Merchant

The Cronbach's alpha for consumers' perception of the importance on information about merchant is 0.8125. The value could be improved (to 0.8161) by removing "the product list" from the scale. The reliability is low as compared to other scales. The standardized alpha is 0.8111.

4.4.3 Reliability Analysis - Contact Details

The contact details about merchants shows a much better reliability value (0.8957) which could not be further improved by removing any components. The standardized alpha is 0.8980.

4.4.4 Reliability Analysis - Product Information

The Cronbach's alpha value is 0.8171 as compared to the standardized alpha which is 0.8201. The reliability of the scale is at its best if all the components are included.

4.4.5 Reliability Analysis - Information Currency

The Cronbach's alpha for this category is only 0.7518 and the best it could be improved to is to 0.8043 (by eliminating the update rate parameter). The difference of the alpha value from the standardized alpha is small.

4.4.6 Reliability Analysis - Privacy

The use of the scale to evaluate privacy is not that reliable as the alpha value is only 0.7229. Besides that, it also very much different from the standardized alpha which is 0.7347.

4.4.7 Reliability Analysis - Delivery Options

The value of the alpha to assess the consumers' perception of the importance on delivery options is 0.8588. The reliability value increases if details of back order is removed from the scale.

4.4.8 Reliability Analysis - Support Information

The reliability value of consumers' perception of the importance on support information is 0.8610. The reliability drops to 0.7418 if the validity of information is removed from the scale.

4.4.9 Reliability Analysis - Warranty Details

This appears to be the most reliable scale among the rest with a alpha value of 0.9345 as compared to the standardized alpha at 0.9351.

4.4.10 Reliability Analysis - Cancellation of Order

The security scale is the second most reliable scale after warranty details. The value of alpha is 0.9242 which could not be further improved by eliminating any variables.

4.4.11 Reliability Analysis - Security

The security scale is pretty reliable as well with a alpha value of 0.9162. The reliability could be further improved to 0.9496 by eliminating the name of the security protocol.

4.4.12 Reliability Analysis - Reliability

The Cronbach's alpha for this category is 0.7968 and that is the best it could be. The standardized alpha value is 0.7597.